



Analytical Reagents Catalogue

Volume I

Part of Thermo Fisher Scientific

Choice, Quality and Value from the World Leader in Serving Science

Welcome

Welcome to Volume 1 of the Fisher Chemical Analytical Reagents catalogue, a reference handbook from Thermo Fisher Scientific. Our cutting edge analytical technology and more than 100 years experience in the manufacture and supply of an extensive portfolio of analytical reagents ensures that Fisher Scientific has the ability to safely provide our customers with consistent, high purity chemicals and logistic. Thermo Fisher Scientific is the supplier of choice when it comes to your analytical reagent needs.

Why choose Fisher Chemical Analytical Reagents?

We hold ISO14001 and ISO9001:2000 environmental and quality accreditations, which incorporates a guarantee that we will supply product that meets the current catalogue specification.

All of our CertiFied (AR and HPLC grade) products include lot specific data on the label and, for HPLC solvents, a UV absorbance curve further demonstrating that we are meeting the stringent requirements that the laboratory marketplace demands.

Consistency and continuity are assured through our multiple manufacturing facilities which include;

Solvent distillation and repackaging facilities

Re-crystallisation and multi purpose manufacturing capability

An extensive QA/QC department

Volumetric solution manufacture and repacking capabilities.

Through the Fisher Scientific organisations, you have access to industry leading e-commerce, logistics and procurement solutions which allow you to optimise the supply chain process.

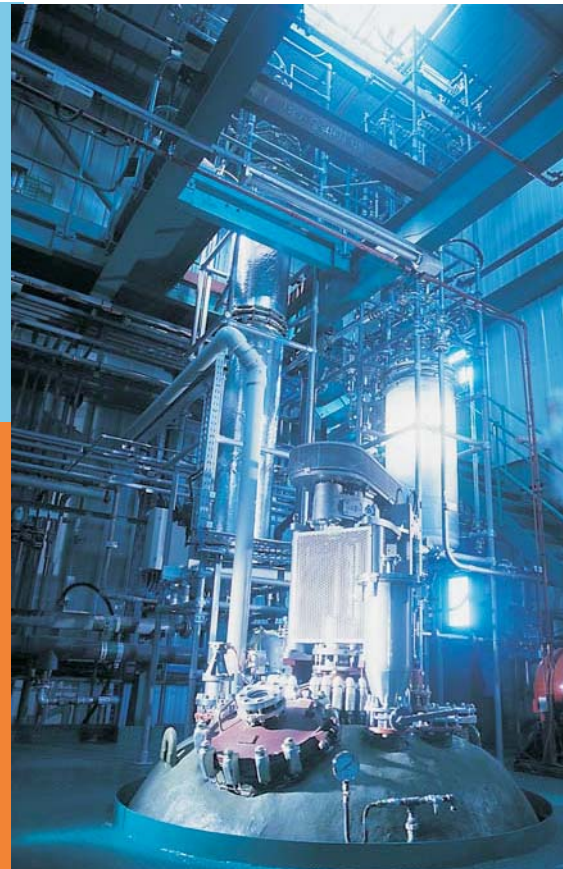


Table of Contents

Introduction

Fisher Chemical	
Range & application guide	page I
Packaging	page II
How to read the catalogue	page IV
Labeling	page V
Feature products	page VI
Product Guide per research activity	page VIII

Other Information

Health, Safety and Regulatory information	page X
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Technical Information

pH variation with temperature	page XII
Solvents miscibility	
cross-reference chart	page XII
Chemical resistance of plastics	page XIII
Properties and preparation of solutions	
Normal and Molar solutions	page XIV
Concentrations of solutions	page XIV
Conversion tables	page XV
Sieve size conversion chart	page XVI
Analytical abbreviation list	page XVI

Product range

Alphabetical listing of products	page 1 to 310
Product number index	

Fisher Chemical range & application guide

Fisher Chemical analytical reagents are available in different grades designed for your application. For easy reading the different grades have been colour coded in this catalogue and carry a special quality label on the bottle.

Certified HPLC-MS

HPLC solvents specified for use with a MS detector. Guaranteed for low level of trace metals and non volatile residue. Low level of absorbance, performance under gradient conditions.



Certified HPLC Gradient

HPLC solvents suitable for Gradient analysis. Guaranteed for low absorbance/high UV transmission and low concentration of non-volatile impurities. In some instance may be suitable for fluorescence detection. Actual lot analysis including absorbance curve on the pack label.



Certified Advanced HPLC Gradient

Advanced HPLC gradient grade. HPLC gradient guarantee with a very low level of gradient baseline drift. Actual lot analysis including absorbance curve on the pack label.



HPLC Fluorescence

HPLC solvents for Fluorescence and UV detectors. Guaranteed for low fluorescence between 250 nm and 750 nm emission & excitation wavelengths. Low UV absorbance/high transmission.



HPLC Electrochemical

HPLC solvents for Electrochemical and UV detectors. Guaranteed for electrochemical activity and low UV absorbance/high transmission.



GPC

Gel Permeation Chromatography. Low water, residue and colour. Unique chemical range – Actual lot analysis on the pack label.



Optima® grade

ICP-MS Ultra Traces Metal® analysis. Ultrapure acids, bases & water tested for up to 65 parameters at 1-100 ppt level. The highest performance acid range.



Trace Metal® grade

ICP Traces Metal® analysis. Acids, bases tested for up to 65 parameters at 1 ppb level.



Primar Plus® grade

AAS & ICP Trace metal® analysis acids and bases tested for up to 26 parameters at ppb level. Single and multi element standards solutions with NIST traceability. Actual lot analysis on the pack label.



Distol®

For pesticide and petroleum residue analysis. Specified for ECD, NPD and FID detectors. Supplied with GC analysis.



Dried Distilled

For organic synthesis. Guaranteed low water contents.



For Analysis

Certified reagents for analytical application. Tested for up to 18 guaranteed parameters. Actual lot analysis on the pack label.



For Analysis Conform Eur.Ph.

Certified reagents for analytical application. Conform to Eur.Pharmacopeia. Tested for up to 18 guaranteed parameters. In some instance may be meet USP and BP Pharmacopeia. Actual lot analysis on the pack label.



Specified SLR

General laboratory reagents for Research application. Extra-Pure grade - Tested for major parameters.



Volumetric solution

Standard solutions for Volumetric analysis. Accuracy factor $\pm 0,001$ NIST traceability. Ready to use.



Solutrate

Concentrated solutions for volumetric analysis. Supplied in singles or pack of six sealed ampoules.



Buffers

Standard (colour coded) NIST certified solutions for pH metry. Ready to use, with an accuracy factor of ± 0.02 pH at 20°C. Also available as concentrates, packaged in ampoules.



Aqualine™

Karl Fischer reagents for the determination of moisture Volumetric and Coulometric reagents and standards. Pyridine free, rapid titration and a stable end-point.



Packaging

Fisher Chemical products offer convenience and ultimate safety for the lab chemist and the warehouse manager



Plastic bottle HDPE

1	500 ml GL45	Natural HDPE	177 x Ø 78 mm	52 g
	1000 ml GL45	Natural HDPE	212 x 97 x 97 mm	112 g
2	1000 ml GL45	Black HDPE	213 x 97 x 97 mm	112 g
3	2500 ml GL45	Black HDPE	292 x 127 x 127 mm	158 g
4	2500 ml GL45	Natural HDPE	291 x 127 x 127 mm	158 g
	2500 ml GL45	Natural HDPE	300 x Ø 134 mm	190 g
	2500 ml GL45	Black HDPE	301 x Ø 134 mm	190 g
	5000 ml GL45	Natural HDPE	339 x 168 x 168 mm	321 g
	5000 ml GL45	Black HDPE	340 x 168 x 168 mm	321 g

Glass bottle

5	100 ml GL31	Amber Glass	122 x 50 x 50 mm	140 g
6	250 ml GL31	Amber Glass	160 x 63 x 63 mm	270 g
7	500 ml GL54	Amber Glass	183 x Ø 83 mm	430 g
8	1000 ml GL45	Amber Glass	230 x Ø 102 mm	685 g
9	2500 ml GL45	Amber Glass	298 x Ø 134 mm	1300 g
	100 ml GL31	Coated Amber Glass	122 x 51 x 51 mm	157 g
	250 ml GL31	Coated Amber Glass	160 x 64 x 64 mm	287 g
	500 ml GL54	Coated Amber Glass	183 x Ø 84 mm	453 g
	1000 ml GL45	Coated Amber Glass	230 x Ø 103 mm	720 g
	2500 ml GL45	Coated Amber Glass	298 x Ø 135 mm	1360 g

HDPE Plastic bottle solids (wide opening)

10	150 ml GL40	white HDPE	85 x 58 x 58 mm	30 g
11	300 ml GL40	white HDPE	108 x 70 x 70 mm	38 g
12	500 ml GL54	white HDPE	130 x 81 x 81 mm	65 g
13	750 ml GL54	white HDPE	143 x 93 x 93 mm	77 g
14	1000 ml GL54	white HDPE	155 x 106 x 106 mm	100 g
15	1500 ml GL80	white HDPE	176 x 118 x 118 mm	140 g
16	2300 ml GL80	white HDPE	199 x 135 x 135 mm	205 g
17	3500 ml GL80	white HDPE	255 x 190 x 190 mm	376 g

Glass bottle solids

	30 ml GL25	Amber Glass	66 x Ø 33 mm	40 g
18	100 ml GL32	Amber Glass	110 x 45 x 45 mm	300 g
	250 ml GL45	Amber Glass	150 x 60 x 60 mm	750 g
	500 ml GL54	Amber Glass	175 x 70 x 70 mm	1500 g
	1000 ml GL54	Amber Glass	215 x 90 x 90 mm	3000 g



Other packagings

19	Plastic Ampoule	HDPE	15 g
20	5 l drum GL45	Aluminium	300 x Ø 175 mm 360 g
21	5 l drum with extractible cap GL45	Mild steel	295 x Ø 165 mm 460 g
22	10 l Cubitainer	Bag HDPE in Box	236 x 236 x 236 mm 460 g
23	10 l Plastic Jerrican	HDPE transparent & black	325 x 195 x 230 mm 640 g
24	25 l Mild steel drum (2" & 3/4")	Mild steel internally lacquered	473 x Ø 285 mm 3840 g
	25 l Plastic drum	HDPE	445 x 286 x 286 mm 1350 g
	15 l Plastic screw top keg	PP	297 x Ø 338 mm 810 g
25	20 l Plastic screw top keg	PP	377 x Ø 338 mm 1080 g
	25 l Plastic screw top keg	PP	457 x Ø 338 mm 1370 g
26	25 kg Fibre keg	Fibre	3000 g



IV

Labeling

Fisher Chemical labels provide all necessary information to work safely in your laboratory and some unique benefits for your daily work.

What is Certified ?

- Lot analysis on the label – the equivalent to a Certificate of Analysis = CoA
- Applies to AR and HPLC solvents
- HPLC solvents carry a lot specific absorbance curve on the label



- Safety handling
- Risk and Safety phrases in 4 languages
- Full MSDS on the web

Acetonitrile Far UV
Acétonitrile
Acetonitril, Far UV
Acetonitril

- Product name, grade and application

UN No.: 1648 Transport hazards: 3 EEC Label
 Store at <30°C Use within 3 years of opening
 Formula: CH₃CN FW:41.05
Lot Analysis

Absorbance @ 195 nm	0.056 A.U.
Absorbance at 200 nm	0.015 A.U.
Absorbance at 210 nm	0.008 A.U.
Absorbance at 220 nm	0.003 A.U.
Absorbance at 230 nm	0.000 A.U.
Absorbance at 240 nm	0.000 A.U.
Absorbance at 250 nm	0.000 A.U.
Acidity / alkalinity	0.000250 meq/g
Assay (GC)	99.99 %
Gradient (max. eluted peak)	0.0021 A.U.
Residue after evaporation	None Detected
Water	0.0092 %

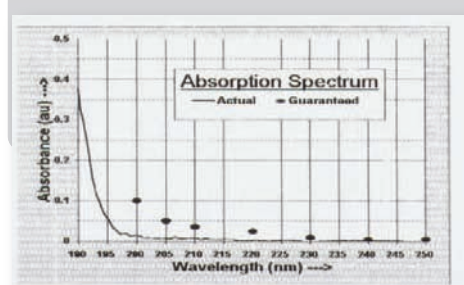
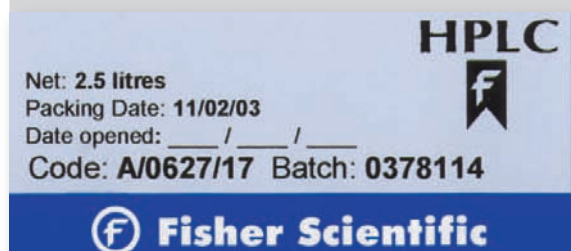
- Storage and transportation conditions
- Lot Analysis showing actual QC data



The labels of certified HPLC solvents carry detailed QC data and specifications from the catalogue

- Date opened: for your personal use
- Code: reference used in the catalogue / for ordering purposes
- Batch: use to retrieve certificates of analysis on the Internet for full traceability

- Dots represent specifications in the catalogue
- Absorption curve represents actual lot analysis
- This is a unique feature for Fisher Chemical Certified products



Feature products



Trace metal analysis as low as 1 to 100 ppt

OPTIMA® for Ultra Trace Metal® analysis

as low as 1-100 ppt level detection

The highest purity of acids & bases: all products are certified below 100 parts per trillion (ppt or pg/g). This range contains the fewest trace metallic impurities of any other acids tested up to 65 parameters at ppt levels.



Fisher Chemical Optima® Packaging:

Teflon FEP bottle, Teflon PFA with HCl and HF (to avoid vapor permeability issues)

- Bottled in class 10 clean room conditions.
- Individually double bagged in class 100 clean room for product integrity.
- Each bottle is packaged individually.

Instrumentation
from Thermo Fisher Scientific

ICP-Mass Spectrometry

ICP-MS is the routine tool for multi-element analysis. From ultra-trace (ppq) to matrix (%) elements in a large variety of samples – the whole periodic table can be analyzed routinely in a few minutes. Thermo Fisher Scientific provides the most complete range of ICP-MS instrumentation.



To exploit the full power of ICP-MS chemicals of highest quality and purity are prerequisite.

Thermo Fisher Scientific with its combined strengths in chemicals and analytical instrumentation guarantees unmatched quality for highest performance and undisputable results. Fisher Chemical Optima® Series provides a full range of chemicals for ultra-pure analysis – superiority is guaranteed by quality control when using unparalleled instrumentation from Thermo Fisher Scientific.

For more information, go to www.thermo.com/trace

Trace Metal® Grade for Trace Metal® analysis

1 ppb level detection

High purity acids and bases: these products are certified below one part per billion (ppb or ng/g) and tested up to 65 parameters at ppb levels.



Fisher Chemical Trace Metal® Packaging:

- Safety packaging PVC coated bottle: even if the glass bottle breaks, the safety coating will remain intact.
- Bottled in class 10 clean room conditions.

Instrumentation
from Thermo Fisher Scientific

ICP-Emission Spectrometry Fast multi-element analysis

ICP is a fast multi-element analysis technique capable of determining up to 72 elements in a very wide range of samples including food, environmental, metallurgy and petrochemical samples. With detection limits ranging from sub ppb to % levels and typical analysis times of 60-90 seconds, it is ideally suited for busy laboratories with a large workload. The Thermo Scientific iCAP 6000 Series is a dramatically different ICP specifically designed to have high performance, occupy less bench space, be easier to use, and reduce the cost of ownership.



The best performing ICP on the market deserves the best reagents. The combined strengths in reagents and instrumentation from the Thermo Scientific brand guarantees unmatched quality for highest performance and the best results. Fisher Chemical Trace Metal® and Primar® grade reagents allow the ultimate performance of the iCAP to be achieved and guarantee high quality results every time.

For more information, go to www.thermo.com/trace

PRIMAR PLUS® for Trace Metal® analysis

1-10 ppb level detection

Range of acids for trace elemental analysis tested up to 40 parameters at ppb levels.



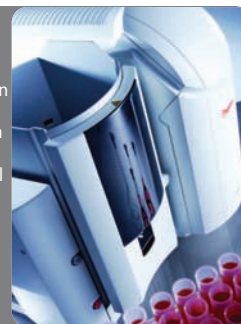
Fisher Chemical Primar Plus® Packaging:

- Safety packaging coated glass bottle.

Instrumentation
from Thermo Fisher Scientific

AA spectrometry

AA spectrometry provides parts per million and parts per billion detection limits for most metallic elements in many different sample matrices with minimal interferences. Although invented over 50 years ago AA is still the technique of choice for many laboratories. The Thermo Scientific brand includes revolutionary stylish, intelligent and fully automatic AA spectrometers coupled with intelligent accessories that will meet and exceed your performance criteria for a wide range of analyses including environmental, clinical, food and WEEE/RoHS applications.



For more information, go to www.thermo.com/trace

For more information, go to www.thermo.com/elemental

Mono & Multi-elemental Standard solutions Certified

As the recognised industry leader, only SPEX Certiprep can provide its unique "Triple Check Program" and comprehensive Certificates of Analysis

- ICP-AES analysis for the major element
- Classical wet assay for the major element
- Final ICP-AES analysis for the trace metal® impurities in the actual solution

The combination of SPEX and the Fisher Chemical brand offers superior quality Inorganic Certified Reference

Materials for AAS, ICP, ICP-MS, IC and XRF techniques.

Now we also offer NEW Organic Certified Reference Materials for GC, GC-MS and HPLC techniques. All materials are manufactured from the highest purity materials available, tested on our state-of-the-art instrumentation under the internationally accredited ISO 9001:2000 quality assurance program. These standards are manufactured under a quality system complying with ISO 14025:2000. Ask for your copy of the SPEX catalog.

SPEX
CertiPrep





HPLC Solvents

Accurate and consistent HPLC results using the highest quality chemicals.



To achieve accurate and consistent results from HPLC analysis it is essential that the chemicals used are of the highest purity. Fisher Scientific has over 100 years of experience in the production of high purity solvents - ensuring we can meet the needs of all our end users.

High Class Manufacturing and Customer Care

We pride ourselves on continually looking for ways to improve our purification processes, allowing us to offer solvents to increase stringent specifications. The following qualities enable us to maintain our leading position in the analytical market:

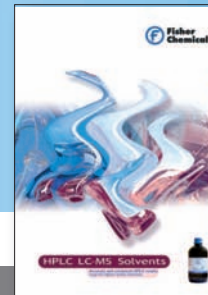
Product and service innovation

- Continuous investment
- ISO9002 and ISO14001 accreditation
- Quality Control consisting of four sections: Chromatography, Spectroscopy, Trace Metals Analysis and Classical Techniques
- Emphasis on safety and packaging
- Dedicated team of professionals

Diverse customer requirements have led us to develop products that meet the needs of specific applications.

These include:

- Solvents, buffers and reagents for HPLC
- Solvents for fluorescence detection
- Solvents and reagents for electrochemical detection
- Solvents for LC-MS detection: "Liquid Chromatography mass spectrometry"
- Solvents for GPC: "Gel Permeation Chromatography"



HPLC LC-MS Solvents

Our new range of solvents has been developed to meet the stringent needs of LC-MS technology.



Fisher Chemical LC-MS solvents have: High quality, reproducible performance

- Increase the sensitivity of LC-MS applications
- True analyte peaks (< 50 ppb metal ions) for better analyte identification
- Smooth, flat baselines from low diode array detector background
- High ionization efficiency from low impurity levels

Quality characteristics

- Low residue
- Filtered at 0.2 microns
- Low absorbance levels under gradient conditions
- Low levels of trace metals, including alkaline earth metals
- Low acidity and alkalinity level

Convenience

- Formulated and tested specifically for LC-MS applications
- Accuracy of data from ease of mass spectra interpretation
- LC-MS and LC-UV compatible based on low UV absorbances

Quality Control

- Minimal free acid/alkali levels
- Tested for non-volatile matter and other elements
- LC-MS use test performed

Cost Savings

- Longer column life due to minimal impurities in the mobile phase
- Clog free operation of LC-MS system due to the absence of particles and foreign matter

Instrumentation
from Thermo Fisher Scientific

Thermo Scientific - Liquid Chromatography Solutions

Our unique chromatography technologies accelerate and improve your LC separations through Thermo Scientific columns, conventional and high speed LC instrumentation, and fast scanning MS detection.

Accela High Speed HPLC and U-HPLC in One Efficient Limitless System

The Thermo Scientific Accela™ high-speed chromatographic system provides fast, efficient chromatographic separations over an expansive range of flow rates and pressures. Accela is designed to optimize performance of sub-two micron particle columns, providing seamless operation spanning conventional LC pressures from short LC columns, up to 15,000 psi for long-column separations of complex bio mixtures.

The Thermo Scientific TSQ Quantum Access is the benchmark triple quadrupole LC-MS/MS for pharmaceutical, environmental, food safety, clinical research, and forensics analysis. This system features the innovative QED-MS/MS scan mode for unmatched sensitivity and selectivity. Thermo Fisher Scientific with its combined strength in chemicals and analytical instrumentation guarantees unmatched quality for highest performance and undisputable results.

For more information, go to www.thermo.com/chromatography



Product Guide per research activity

Products for ACADEMIC RESEARCH

for analytical experiments in the university and research institutes

- HPLC , HPLC-MS
 - Certified solvents
 - Certified Reagents & Buffers



- Liquid chromatography & TLC (Thin Layer Chromatography)
 - Solvents "For analysis" & "Extra-pure" grade



- Solvents "For analysis" & "Extra-pure" grade



- Others products:
 - Dried Solvents grade
 - Buffer standard solutions (ready to use or concentrated) (see table page 45)
 - Volumetric standard solutions (see table page 266)



Products for ENVIRONMENTAL RESEARCH

for water control, trace and metal analysis at analytical laboratories

- AAS, ICP & ICP-MS
 - Acids, Bases & water Optima®, Trace Metal® and Primar Plus® grade (see table page 9)
 - Mono & Multi-elemental standard solution-NIST Traceability (see table page 256)



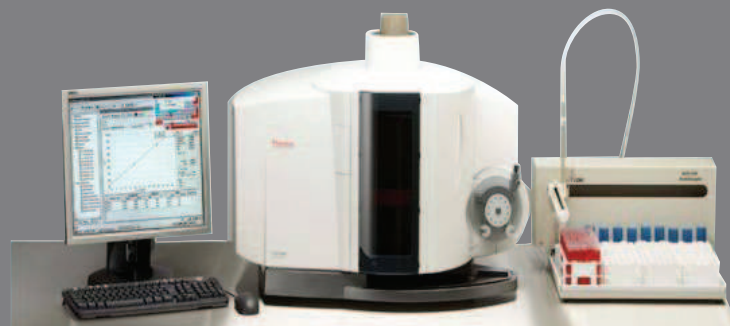
- HPLC , UPLC & HPLC-MS
 - Solvents Certified
 - Reagents & Buffers Certified



- Gas Chromatography-GC
 - Solvents for Pesticides Residue analysis Distol®



- Titrations
 - Buffer standard solution (ready to use or concentrated) (see table page 45)
 - Volumetric standard Solution (see table page 266)
 - Karl Fischer Aqualine® reagents (see table page 137)
 - Acids & bases for analysis grade
 - Indicator & Stains (see table page 127)



for industrial research and production
analytical control laboratories.

■ HPLC, UPLC & HPLC-MS

- Certified solvents
- Certified Reagents & Buffers

HPLC HPLC
F F

■ Titrations

- Buffer standard solution (ready to use or concentrated) (see table page 45)
- Volumetric standard solutions (see table page 266)
- Karl Fischer Aqualine® reagents (see table page 137)
- Acids & bases for analysis grade
- Indicator & Stains (see table page 127)

Aqualine™
volumetric
F
Soltrate
F

■ Liquid chromatography & TLC (Thin Layer Chromatography)

- Solvents "For analysis "
- "Extra-pure" grade

Certified F LR Specified F LR

■ Gas Chromatography-GC

- Distol®, solvents for Pesticides Residue analysis

Distol
F



Instrumentation
from Thermo Fisher Scientific

Health, Safety and Regulatory information

Hazard warning symbols

Substances with known hazards are labeled in accordance with UK Regulations and EEC Directives and show Hazard symbol(s), Substance Identification Number and phrases covering major Risk and Safety precautions. Hazard symbols and Risk and Safety phrase numbers are shown in the catalogue. Flash points (closed cup) and special storage conditions are being given where appropriate. In addition, recommendations for First Aid, Fire, Spillage and Disposal treatment are shown in code form at the end of an item's entry. Explanation of the codes, hazard symbols, and general advice can be found on the following pages. All the above information is available in the form of a Health and Safety Data Sheet which will be provided on request.



Toxic

Substances which present a serious risk of acute or chronic poisoning, by inhalation, ingestion or skin absorption.



Harmful

Substances which present moderate risks to health by inhalation, ingestion or skin absorption.



Irritant

Substances which are non-corrosive but are liable to cause inflammation through immediate, prolonged or repeated contact with the skin or mucous membranes.



Dangerous to the environment

Substances which, were they to enter into the environment, would present or might present an immediate or delayed danger for one or more components of the environment.



Corrosive

Substances which destroy living tissue.



Explosive

Substances which may explode under the effect of flame or heat or which are more sensitive to shock or friction than dinitrobenzene.



Flammable

Extremely flammable liquids have a flash point less than 0°C and a boiling point less than or equal to 35°C.

Highly flammable substances include:

- (a) those which may become hot and finally catch fire in contact with air at ambient temperature without application of energy.
- (b) those which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition.
- (c) those which are gaseous and flammable in air at normal pressure.
- (d) those in contact with water or damp air which evolve highly flammable gases in dangerous quantities.
- (e) liquids have a flash point below 21°C.

Flammable liquids are those having a flash point equal to or greater than 21°C and less than or equal to 55°C.



Oxidising

Substances which give rise to highly exothermic reactions in contact with other substances, particularly flammable substances.

Health & safety information

Risk and safety information

R1 Explosive when dry.
R2 Risk of explosion by shock, friction, fire or other sources of ignition.
R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R4 Forms very sensitive explosive metallic compounds.
R5 Heating may cause an explosion.
R6 Explosive with or without contact with air.
R7 May cause fire.
R8 Contact with combustible material may cause fire.
R9 Explosive when mixed with combustible material.
R10 Flammable.
R11 Highly flammable.
R12 Extremely flammable.
R14 Reacts violently with water.
R15 Contact with water liberates extremely flammable gases.
R16 Explosive when mixed with oxidizing substances.
R17 Spontaneously flammable in air.
R18 In use, may form flammable/explosive vapour-air mixture.
R19 May form explosive peroxides.
R20 Harmful by inhalation.
R21 Harmful in contact with skin.
R22 Harmful if swallowed.
R23 Toxic by inhalation.
R24 Toxic in contact with skin.
R25 Toxic if swallowed.
R26 Very toxic by inhalation.
R27 Very toxic in contact with skin.
R28 Very toxic if swallowed.
R29 Contact with water liberates toxic gas.
R30 Can become highly flammable in use.
R31 Contact with acids liberates toxic gas.
R32 Contact with acids liberates very toxic gas.
R33 Danger of cumulative effects.
R34 Causes burns.
R35 Causes severe burns.
R36 Irritating to eyes.
R37 Irritating to respiratory system.

R38 Irritating to skin.
R39 Danger of very serious irreversible effects.
R40 Possible risks of irreversible effects.
R41 Risk of serious damage to eyes.
R42 May cause sensitization by inhalation.
R43 May cause sensitization by skin contact.
R44 Risk of explosion if heated under confinement.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R48 Danger of serious damage to health by prolonged exposure.
R49 May cause cancer by inhalation.
R50 Very toxic to aquatic organisms.
R51 Toxic to aquatic organisms.
R52 Harmful to aquatic organisms.
R53 May cause long-term adverse effects in the aquatic environment.
R54 Toxic to flora.
R55 Toxic to fauna.
R56 Toxic to soil organisms.
R57 Toxic to bees.
R58 May cause long-term adverse effects in the environment.
R59 Dangerous for the ozone layer.
R60 May impair fertility.
R61 May cause harm to the unborn child.
R62 Possible risk of impaired fertility.
R63 Possible risk of harm to the unborn child.
R64 May cause harm to breastfed babies.
R65 Harmful: may cause lung damage if swallowed.

Combination of R-phrases

R14/15 Reacts violently with water, liberating extremely flammable gases.
R15/29 Contact with water liberates toxic, extremely flammable gas.
R20/21 Harmful by inhalation and in contact with skin.
R20/22 Harmful by inhalation and if swallowed.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R21/22 Harmful in contact with skin and if swallowed.
R23/24 Toxic by inhalation and in contact with skin.
R23/25 Toxic by inhalation and if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R24/25 Toxic in contact with skin and if swallowed.
R26/27 Very toxic by inhalation and in contact with skin.
R26/28 Very toxic by inhalation and if swallowed.
R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
R27/28 Very toxic in contact with skin and if swallowed.
R36/37 Irritating to eyes and respiratory system.
R36/38 Irritating to eyes and skin.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37/38 Irritating to respiratory system and skin.
R39/23 Toxic: danger of very serious irreversible effects through inhalation.
R39/24 Toxic: danger of very serious irreversible effects in contact with skin.
R39/25 Toxic: danger of very serious irreversible effects if swallowed.
R39/23/24 Toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R39/23/25 Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R39/24/25 Toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R39/26 Very toxic: danger of very serious irreversible effects through inhalation.
R39/27 Very toxic: danger of very serious irreversible effects in contact with skin.

R39/28	Very toxic: danger of very serious irreversible effects if swallowed.	R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	S43D	In case of fire, use sodium carbonate or dry sand (never use water).
R39/26/27	Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin.	Safety phrases		S43E	In case of fire, use dry sand (never use water).
R39/26/28	Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.	S1	Keep locked up.	S43F	In case of fire, use water.
R39/27/28	Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed.	S2	Keep out of the reach of children.	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
R39/26/27/28	Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.	S3	Keep in a cool place.	S46	If swallowed, seek medical advice immediately and show this container or label.
R40/20	Harmful: possible risk of irreversible effects through inhalation.	S4	Keep away from living quarters.	S47	Keep at temperature not exceeding... degra. C (to be specified by the manufacturer).
R40/21	Harmful: possible risk of irreversible effects in contact with skin.	S5	Keep contents under... (appropriate liquid to be specified by the manufacturer).	S47A	Keep at temperature not exceeding 65°C.
R40/22	Harmful: possible risk of irreversible effects if swallowed.	S5A	Keep contents under oil.	S47B	Keep at temperature not exceeding 30°C.
R40/20/21	Harmful: possible risk of irreversible effects through inhalation and in contact with skin.	S5B	Keep contents under liquids which are oxygen-free, e.g. kerosene, toluene, etc.	S48	Keep wet with... (appropriate material to be specified by the manufacturer).
R40/20/22	Harmful: possible risk of irreversible effects through inhalation and if swallowed.	S6	Keep under... (inert gas to be specified by the manufacturer).	S49	Keep only in the original container.
R40/21/22	Harmful: possible risk of irreversible effects in contact with skin and if swallowed.	S6A	Keep under nitrogen.	S50	Do not mix with... (to be specified by the manufacturer).
R40/20/21/22	Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.	S7	Keep container tightly closed.	S50A	Do not mix with acids.
R42/43	May cause sensitization by inhalation and skin contact.	S8	Keep container dry.	S51	Use only in well-ventilated areas.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.	S9	Keep container in a well-ventilated place.	S52	Not recommended for interior use on large surface areas.
R48/21	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.	S12	Do not keep the container sealed.	S53	Avoid exposure- obtain special instructions before use.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.	S13	Keep away from food, drink and animal feeding stuffs.	S56	Dispose of this material and its container at hazardous or special waste collection point.
R48/20/21	Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.	S14	Keep away from... (incompatible materials to be indicated by the manufacturer).	S57	Use appropriate container to avoid environmental contamination.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.	S14A	Keep away from acids, reducing agents and polymerisation catalysts.	S59	Refer to manufacturer/supplier for information on recovery/recycling.
R48/21/22	Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.	S14B	Keep away from organic material and metal powders.	S60	This material and its container must be disposed of as hazardous waste.
R48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.	S14C	Keep away from water, acids and alkali.	S61	Avoid release to the environment. Refer to special instructions / Safety data sheets.
R48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.	S15	Keep away from heat.	S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label
R48/24	Toxic: danger of serious damage to health by prolonged exposure in contact with skin.	S16	Keep away from sources of ignition - No smoking.	Combination of S-phrases	
R48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed.	S17	Keep away from combustible material.	S1/2	Keep locked up and out of the reach of children.
R48/23/24	Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.	S18	Handle and open container with care.	S3/7	Keep container tightly closed in a cool place.
R48/23/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.	S20	When using do not eat or drink.	S3/9/14	Keep in a cool, well-ventilated place away from... (incompatible material to be indicated by the manufacturer).
R48/24/25	Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.	S21	When using do not smoke.	S3/9/14/49	Keep only in the original container in a cool, well-ventilated place away from... (incompatible materials to be indicated by the manufacturer).
R48/23/24/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.	S22	Do not breathe dust.	S3/9/49	Keep only in the original container in a cool, well-ventilated place.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	S23	Do not breathe gas/fumes/vapour/spray.	S3/14	Keep in a cool place away from... (incompatible materials to be indicated by the manufacturer).
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	S24	Avoid contact with skin.	S7/8	Keep container tightly closed and dry.
		S25	Avoid contact with eyes.	S7/9	Keep container tightly closed and in a well-ventilated place.
		S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	S7/47	Keep container tightly closed and at a temperature not exceeding...°C (to be specified by the manufacturer).
		S27	Take off immediately all contaminated clothing.	S20/21	When using do not eat, drink or smoke.
		S28	After contact with skin, wash immediately with plenty of... (to be specified by the manufacturer).	S24/25	Avoid contact with skin and eyes.
		S28A	After contact with skin, wash immediately with plenty of water.	S29/56	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
		S28B	After contact with skin, wash immediately with plenty of water and soap.	S36/37	Wear suitable protective clothing and gloves.
		S28C	After contact with skin, wash immediately with a Sodium borate solution.	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
		S29	Do not empty into drains.	S36/39	Wear suitable protective clothing and eye/face protection.
		S30	Never add water to this product.	S37/39	Wear suitable gloves and eye/face protection.
		S33	Take precautionary measures against static discharges.	S47/49	Keep only in the original container at temperature not exceeding... °C (to be specified by the manufacturer).
		S35	This material and its container must be disposed of in a safe way.		
		S36	Wear suitable protective clothing.		
		S37	Wear suitable gloves.		
		S38	In case of insufficient ventilation, wear suitable respiratory equipment.		
		S39	Wear eye/face protection.		
		S40	To clean the floor and all objects contaminated by this material, use... (to be specified by the manufacturer).		
		S41	In case of fire and/or explosion do not breathe fumes.		
		S42	During fumigation/ spraying wear suitable respiratory equipment.		
		S43	In case of fire, use... (indicate in the space the precise type of fire-fighting equipment. If water increases the risk, add - 'Never use water').		
		S43A	In case of fire, use dry chemical (never use water).		
		S43B	In case of fire, use fire-fighting equipment on basis of sodium chloride or sodium bicarbonate (never use water).		
		S43C	In case of fire use limestone powder, sodium chloride or dry sand (never use water).		

Technical Information

pH 4,00

pH 7,00

pH 10,00



pH variation with temperature

Description		Temperature												
		0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
pH 2.00	Glycine					2.000	2.101							
pH 3.00	Phtalate	2.910	2.912	2.918	2.919	2.924	2.932	2.936	2.944	2.953	2.962	2.973	2.984	2.910
pH 4.00	Phtalate	4.007	4.002	3.999	4.000	4.003	4.008	4.016	4.025	4.036	4.050	4.068	4.084	4.101
pH 5.00	Phtalate	4.998	4.980	4.969	4.958	4.955	4.955	4.957	4.963	4.974	4.989	5.006	5.028	5.052
pH 6.00	Phosphate				6.022	6.000	5.976	5.976	5.937					
pH 7.00	Phosphate	7.115	7.083	7.056	7.032	7.012	6.994	6.983	6.975	6.968	6.970	6.970	6.970	6.974
pH 8.00	Borate				8.017	8.000	7.990	7.975	7.967					
pH 9.20	Borate	9.431	9.361	9.302	9.247	9.200	9.155	9.114	9.079	9.046	9.017	8.993	8.968	8.944
pH 10.00	Carbonate	10.320	10.240	10.180	10.120	10.060	10.010	9.970		9.890		9.890		

Solvents miscibility cross-reference chart

	Acetone	Acetonitrile	Carbon tetrachloride	Chloroform	Cyclohexane	1,2 Dichloroethane	Dichloromethane	Diethyl ether	Dimethylformamide	Dimethylsulfoxide	1,4 Dioxane	Ethanol	Ethyl acetate	Heptane	Hexane	Methanol	Methyl-tert-butyl ether	Pentane	Propan-1-ol	Propan-2-ol	Tetrahydrofuran	Toluene	2,2,4 Trimethylpentane	Water
Acetone																								
Acetonitrile																								
Carbon tetrachloride																								
Chloroform																								
Cyclohexane																								
1,2 Dichloroethane																								
Dichloromethane																								
Diethyl ether																								
Dimethylformamide																								
Dimethylsulfoxide																								
1,4 Dioxane																								
Ethanol																								
Ethyl acetate																								
Heptane																								
Hexane																								
Methanol																								
Methyl-tert-butyl ether																								
Pentane																								
Propan-1-ol																								
Propan-2-ol																								
Tetrahydrofuran																								
Toluene																								
2,2,4 Trimethylpentane																								
Water																								

● Indicates that solvents are not miscible

Chemical resistance of plastics

Chemical	Polypropylene		Polycarbonate		Polyethylene			
	20°C	60°C	20°C	60°C	LD		HD	
	20°C	60°C	20°C	60°C	20°C	60°C	20°C	60°C
Acetic acid solution <90%	R	R	R	R	R	R	R	R
Acetic acid, glacial	R	U	U	U	A	U	R	L
Acetone	R	R	U	U	E	U	R	R
Ammonia	R	R	U	U	R	R	R	R
Aniline	R	R	U	U	U	U	R	R
Benzene	A	U	U	U	U	U	U	U
Boric acid	R	R	R	R	R	R	R	R
Bromine	U	U	U	U	U	U	U	U
Carbon tetrachloride	U	U	U	U	U	U	A	U
Chlorinated solvents	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U
Cresols	U	U	U	U	U	U	U	U
Diethyl ether	U	U	U	U	U	U	U	U
Diethylene glycol	R	R	R	U	R	R	R	E
Ethers	U	U	A	U	E	U	A	U
Ethyl acetate	A	A			A	U	A	U
Ethanol	R	R	R	R	R	U	R	R
Ethylene glycol	R	R	R	U	R	R	E	E
Formaldehyde solutions 40%	R	R	R	R	R	E	R	R
Formic acid	R	R	R	R	R	E	R	R
Hydrochloric acid conc.	E	E	L	U	R	R	SW	SW
Hydrofluoric acid 1-60%	E	E	20%	U	R	R	R	L
Hydrofluoric acid conc.	E	E	L	U	R	U	R	L
Hydrogen peroxide 30-90%	R	R	R	R	R	U	R	A
Hypochlorous acid	R	R			A	U	R	R
Magnesium hydroxide	R	R			R	R	R	R
Maleic acid	R	R			R	R	R	R
Mineral oil	R	R	R	R	A	U	R	E
Nitric acid <25%	R	R	R	U	R	R	R	R
Nitric acid 25-70% R	E	U	U	A	U	L	U	
Nitric acid >70	E	U	U	U	U	U	U	U
Oxalic acid	R	A	R	R	R	R	R	R
Paraffin	R	A	R	R	A	U		
Petroleum ether	A	U	R	R	U	U	U	U
Phosphoric acid <30%	R	R	R	R	R	R	R	R
Phosphoric acid 30-85%	R	R	R	R	R	A	R	R
Phosphoric acid >85%	R	R	R	R	A	U	R	A
Potassium hydroxide	50%	10%	U	U	R	R	R	30%
Salicylic acid	R	R	R	R	R	R	R	R
Sodium hydroxide solution	50%	10%	U	U	R	R	R	30%
Sulfuric acid <60%	R	R	R	R	R	R	R	R
Sulfuric acid 60-70%	R	U	R	R	R	A	R	A
Sulfuric acid >70%	E	U	U	U	A	U	A	L
Silicone oil	R	R	R	R	A	U	E	E
Stearic acid	R	R	R	R	R	R	R	R
Toluene	U	U	U	U	U	U	U	U
Trichloroethylene	U	U	U	U	U	U	V	U
Water	R	R	R	R	R	R	R	R

Key

R Resistant
A Slowly attacked (not recommended for long term storage)
L Limited resistance
U Unsuitable

SW Swelling occurs
V Vapour diffusion
E Environmental stress cracking
% Max concentration

Technical Information

Properties and preparation of solutions

Normal and Molar solutions

Concentrated reagents	Specific gravity (SG)	Molarity (M)	Normality (N)	Volume (mL) required to make 1 litre of solution:	
				1M	1N
Acetic acid 99.5%		17.4	17.4	57.5	57.5
Ammonia 35%	0.880	18.1	18.1	55.3	55.3
Ammonia 25%	0.910	13.4	13.4	74.6	74.6
Hydrochloric acid 36%	1.18	11.65	11.65	85.8	85.8
Hydrochloric acid 32%	1.16	10.2	10.2	98.0	98.0
Hydrofluoric acid 40%	1.13	22.6	22.6	44.2	44.2
Nitric acid 70%	1.42	15.8	15.8	63.3	63.3
Perchloric acid 60%	1.54	9.2	9.2	108.7	108.7
Perchloric acid 70%	1.67	11.6	11.6	86.2	86.2
Orthophosphoric acid 85%	1.7	15.2	45.6	65.8	21.9
Sodium hydroxide 47%	1.5	17.6	17.6	56.7	56.7
Sulfuric acid 96%	1.83	18.0	36.0	53.1	26.2

Concentrations of solutions

■ Percent Composition (by mass)

Can consider percent by mass (or weight percent) in two ways:

- The parts of solute per 100 parts of solution.
- The fraction of a solute in a solution multiplied by 100.

You need two pieces of information to calculate the percent by mass of a solute in a solution:

- The mass of the solute in the solution.
- The mass of the solution.

Use the following equation to calculate percent by mass:

$$\text{Mass Percentage} = \frac{\text{Solute mass}}{\text{Solution mass}} \times 100$$

■ Molarity

Molarity tells us the number of moles of solute in exactly one litre of a solution. (Note that molarity is represented by a capital M.) You need two pieces of information to calculate the molarity of a solute in a solution:

- The moles of solute present in the solution.
- The volume of solution (in litres) containing the solute.

To calculate molarity use the equation:

$$\text{Molarity} = \frac{\text{Moles of solute}}{\text{Volume of solution (L)}}$$

■ Molality

Molality, m, tells us the number of moles of solute dissolved in exactly one kilogram of solvent. (Note that molality is represented by a lower case m.)

You need two pieces of information to calculate the molality of a solute in a solution:

- The moles of solute present in the solution.
- The mass of solvent (in kilograms) in the solution.

To calculate molality we use the equation:

$$\text{Molality} = \frac{\text{Moles of solute}}{\text{Mass of solvent (Kg)}}$$

Conversion tables

Temperature Conversion Tables

Known temperature to be converted in center column.
Centigrade conversion to left, Fahrenheit to right.

Example

-12.2 10 50

therefore

10°C = 50°F

10°F = -12.2°C

TEMPERATURE			TRANSMITTANCE-ABSORBANCE UNITS			
°C	Known	°F	% T	A.U.	% T	A.U.
-17.8	0	32	1	2.000	51	.292
-15	5	41	2	1.699	52	.284
-12.2	10	50	3	1.523	53	.276
-9.4	15	59	4	1.398	54	.268
-6.7	20	68	5	1.301	55	.260
-3.9	25	77	6	1.222	56	.252
-1.1	30	86	7	1.155	57	.241
4.4	40	104	8	1.097	58	.237
10.0	50	122	9	1.046	59	.299
15.6	60	140	10	1.000	60	.222
21.1	70	158	11	.959	61	.215
26.7	80	176	12	.921	62	.208
32.2	90	194	13	.886	63	.201
37.8	100	212	14	.854	64	.194
43.3	110	230	15	.824	65	.187
48.9	120	248	16	.796	66	.180
54.4	130	266	17	.770	67	.174
60.0	140	284	18	.745	68	.167
65.6	150	302	19	.721	69	.161
71.1	160	320	20	.699	70	.155
76.7	170	338	21	.678	71	.149
82.2	180	356	22	.658	72	.143
87.8	190	374	23	.638	73	.137
93.3	200	392	24	.620	74	.131
98.9	210	410	25	.602	75	.125
104.4	220	428	26	.585	76	.119
110.0	230	446	27	.569	77	.114
115.6	240	464	28	.533	78	.108
121	250	482	29	.538	79	.102
149	300	572	30	.523	80	.097
177	350	662	31	.509	81	.092
204	400	752	32	.495	82	.086
232	450	842	33	.482	83	.081
260	500	932	34	.469	84	.076
288	550	1022	35	.469	85	.071
316	600	1112	36	.444	86	.066
343	650	1202	37	.432	87	.060
371	700	1292	38	.420	88	.056
399	750	1382	39	.409	89	.051
427	800	1472	40	.398	90	.046
454	850	1562	41	.387	91	.041
482	900	1652	42	.377	92	.036
510	950	1742	43	.367	93	.032
538	1000	1832	44	.357	94	.027
586	1050	1922	45	.347	95	.022
593	1100	2012	46	.337	96	.018
621	1150	2102	47	.328	97	.013
649	1200	2192	48	.319	98	.009
677	1250	2282	49	.310	99	.004
704	1300	2372	50	.301	100	.000
732	1350	2462				
760	1400	2552				
788	1450	2642				
816	1500	2732				
843	1550	2822				
871	1600	2912				
899	1650	3002				
927	1700	3092				
954	1750	3182				
982	1800	3272				
1010	1850	3362				
1038	1900	3452				
1066	1950	3542				
1093	2000	3632				

Technical Information

Sieve size conversion chart

Sieve size mm	BSS mesh	Microns	Nearest equivalent	
			Tyler	US
3.35	5	3350	6	6
2.81	6	2810	7	7
2.41	7	2410	7	8
2.06	8	2060	9	10
1.68	10	1680	10	12
1.4	12	1405	12	14
1.2	14	1200	14	16
1	16	1000	16	18
0.853	18	853	20	20
0.699	22	699	24	25
0.599	25	599	28	30
0.5	30	500	32	35
0.422	36	422	35	40
0.353	44	353	48	50
0.295	52	295	48	50
0.251	60	251	60	60
0.211	72	211	65	70
0.178	85	178	80	80
0.152	100	152	100	100
0.125	120	125	115	120
0.104	150	104	150	140
0.089	170	88	170	170
0.076	200	76	200	200
0.066	240	66	250	230
0.044	350	44	325	325

Analytical abbreviation list

AAS	Absorption Atomique Spectroscopy	HPLC	High Performance Liquid Chromatography with UV detection	Ph.Eur.	European Pharmacopeia
ACS	American Chemical Society Specification	HPLC gradient	HPLC elution gradient with UV detection	pHMetry	Measurement of pH
ADR	European Agreement on the transportation of dangerous goods on public road	HPLC- Fluorescence	HPLC coupled Fluorescence detection	Potentiometry	Measurement of potentiometry
AOX	Absorbable Organic Halogens	HPLC- EC	HPLC coupled Electrochemical detection	ppb	part per billion 10-7% = 1ppb
APHA	American Public Health Association	HPLC LC-MS	HPLC coupled with Mass Spectroscopy	ppm	part per million 10-4% = 1ppm
ASTM	American Society for testing and Materials	HPTLC	High Performance Thin Layer Chromatography	ppt	part per trillion 10-10% = 1ppt
B.P.	Boiling Point	IATA	Classification of aerial transport	RID	European Agreement on the transportation of dangerous goods by rail
BP	British Pharmacopeia	IC	Ionic Chromatography	RTECS	Registry of Toxic effects of Chemical Substances
BSB	Bio-Chemical oxygen demand	ICP	Induction Coupled Plasma	SPE	Solid Phase Extraction
CAS number	Chemical Abstract Registry N°	IR	Infrared Spectroscopy	Specification product sheet	Specification quality & parameters guarantee by supplier
CI No	Colour Index number	IRMM	Institute for Reference Materials and Measurement	SPME	Solid Phase Microextraction
CoA	Certificat of Analysis (depending on each batch of production)	ISO	International Organization for Standardization	Technical data Sheet	Physical & Chemical data sheet
COD	Chemical Oxygen Demand	KF = Karl Fischer	Analysis for the determination of moisture	TLC	Thin Layer Chromatography
CRM	Certified Reference Material	LD	Lethal Dose	TOC	Total Organic Carbon
D.M	Dipolar moment	LLE	Liquid Liquid Extraction	USP	United States Pharmacopeia
D	Density	M	Molecular weight	UPLC	Ultra pressure Liquid Chromatography
DAB	Deutsches Arzneibuch	M = mol/L	Molarity (mol/L solution)	UV	Ultraviolet spectroscopy
DAC	Deutscher Arzneimittel-Codex	M.P.	Melting Point	v/v	volume/volume
DIN	German Institute for Standardization	MS	Mass Spectrometry	VOC	Volatile Organic Chemicals (carbon)
ECD	Electron Capture Detector	MSDS	Material Safety Data Sheet	Volumetry	Analytical dosage requiring Volumetric or standard solution
EINECS	European Inventory of Existing Chemical substances N°	N	Normality (link between Molarity and Normality)	w/v	weight/volume
EPA	Environmental Protection Agency	n20/D	Refraction Index at 20°C	w/w	weight/weight
FDA	Food and Drug Administration	NIST SRM	National Institute of Standards and Technology Standard Reference Materials	WGK	Water Pollution Classew (German WGK)
FIA	Fluorescence Indicator Analysis	NMR	Nuclear Magnetic Resonance		
GC	Gas Chromatography	p.a	pro analysis (pure analysis)		
GLC	Gas Liquid Chromatography				
GMP	Good Manufacturing Practice				
GPC	Gel Permeation Chromatography				

Acenaphthene extra pure

SLR

SpeciFied

packaging	product code
100 g Plastic jar	A/0040/48

$C_{12}H_{10}$
CAS: 83-32-9
MW: 154.21
Density at 20°C: 1.06
Boiling point: 279°C
Boiling pressure: 760 mmHg
Melting point: 90 to 95°C
Flash point: 135°C
HS-Nr: 29029090
EINECS: 201-469-6
Risk: R36/37/38
Safety: S26, S37/39



Guaranteed analysis

Melting Point tested 90 to 94°C Residue after ignition <0.1%

Acetaldehyde extra pure

SLR

SpeciFied

packaging	product code
500 mL Glass bottle	A/0080/08
2.5 L Glass bottle	A/0080/17

C_2H_4O
CAS: 75-07-0
MW: 44.05
Density at 20°C: 0.78 to 0.782
Boiling point: 21°C
Boiling pressure: 760 mmHg
Melting point: -123°C
Flash point: -27°C
ADR/RID: 3/I
UN: 1089
HS-Nr: 29121200
EINECS: 200-836-8
Risk: R12, R36/37, R40
Safety: S16, S33, S36/37



Assay (GC): >99%

Guaranteed analysis

Acidity <0.05 meq/g

Acetaldehyde tetramer

See Metaldehyde, page 161



Acetamide extra pure

SLR

SpeciFied

packaging	product code
100 g Plastic jar	A/0160/48

C_2H_5NO
CAS: 60-35-5
MW: 59.07
Boiling point: 221°C
Boiling pressure: 760 mmHg
Melting point: 79 to 81°C
HS-Nr: 29241900
EINECS: 200-473-5
Risk: R40
Safety: S36/37



Assay: >98%

Acetic acid glacial for HPLC

Certified

HPLC

packaging	product code
500 mL Coated Glass Bottle	A/0406/PB08
1 L Coated Glass Bottle	A/0406/PB15

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.05
Density at 20°C: 1.05
Boiling point: 117 to 118°C
Boiling pressure: 760 mmHg
Melting point: 16 to 16.5°C
Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
EINECS: 200-580-7
Risk: R10, R35
Safety: S23, S26, S45



Assay: >99.7%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

260 nm <0.1 A.U. 280 nm <0.02 A.U.
270 nm <0.02 A.U.

Acetic acid glacial (d=1.08) is equivalent to a strength of 17.4M (17.4N).

Lot analysis on the label.

Filtered to 0.2 µm.

Acetic acid glacial

HPLC for electrochemical detection

Certified

HPLC
electrochemical

packaging	product code
500 mL Coated Glass Bottle	A/0407/PB08

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.05
Density at 20°C: 1.05
Boiling point: 117 to 118°C
Boiling pressure: 760 mmHg
Melting point: 16 to 16.5°C
Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
EINECS: 200-580-7
Risk: R10, R35
Safety: S23, S26, S45



Assay: >99.7%

Guaranteed analysis

Electrochemical test Conform Lead (Pb) <5 ppm
Iron (Fe) <5 ppm Total chloride (Cl) <0.0005%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

260 nm <0.1 A.U. 280 nm <0.02 A.U.
270 nm <0.02 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Electrode- Graphite.

Acetic acid glacial (d=1.08) is equivalent to a strength of 17.4M (17.4N).

Lot analysis on the label.

Filtered to 0.2 µm.

Acetic acid glacial for ultra trace analysis

NEW SPEC.

OPTIMA

Optima

packaging	product code
250 mL Bottle Teflon FEP	A/0415/07
500 mL Bottle Teflon FEP	A/0415/08
1 L Bottle Teflon FEP	A/0415/15

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.05
Density at 20°C: 1.05
Boiling point: 117 to 118°C
Boiling pressure: 760 mmHg
Melting point: 16 to 16.5°C
Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
Risk: R10, R35
Safety: S23, S26, S45



Assay (CH₃COOH): >99.5%

Guaranteed analysis

Aluminium (Al) <50 ppt	Neodymium (Nd) <1 ppt
Antimony (Sb) <50 ppt	Nickel (Ni) <50 ppt
Arsenic (As) <50 ppt	Platinum (Pt) <50 ppt
Barium (Ba) <10 ppt	Potassium (K) <50 ppt
Beryllium (Be) <10 ppt	Praseodymium (Pr) <1 ppt
Bismuth (Bi) <10 ppt	Rhenium (Re) <10 ppt
Cadmium (Cd) <10 ppt	Rhodium (Rh) <50 ppt
Calcium (Ca) <50 ppt	Rubidium (Rb) <10 ppt
Cerium (Ce) <10 ppt	Ruthenium (Ru) <50 ppt
Chromium (Cr) <10 ppt	Samarium (Sm) <1 ppt
Cobalt (Co) <10 ppt	Scandium (Sc) <10 ppt
Copper (Cu) <50 ppt	Silver (Ag) <50 ppt
Dysprosium (Dy) <1 ppt	Sodium (Na) <100 ppt
Erbium (Er) <1 ppt	Strontium (Sr) <10 ppt
Europium (Eu) <1 ppt	Tellurium (Te) <1 ppt
Gadolinium (Gd) <1 ppt	Terbium (Tb) <1 ppt
Gallium (Ga) <10 ppt	Thallium (Tl) <10 ppt
Germanium (Ge) <10 ppt	Thorium (Th) <1 ppt
Hafnium (Hf) <10 ppt	Thulium (Tm) <1 ppt
Holmium (Ho) <1 ppt	Tin (Sn) <50 ppt
Indium (In) <1 ppt	Titanium (Ti) <10 ppt
Iron (Fe) <50 ppt	Tungsten (W) <10 ppt
Lanthanum (La) <1 ppt	Uranium (U) <1 ppt
Lead (Pb) <10 ppt	Vanadium (V) <10 ppt
Lithium (Li) <10 ppt	Ytterbium (Yb) <1 ppt
Lutetium (Lu) <10 ppt	Yttrium (Y) <1 ppt
Magnesium (Mg) <50 ppt	Zinc (Zn) <50 ppt
Manganese (Mn) <10 ppt	Zirconium (Zr) <10 ppt
Molybdenum (Mo) <10 ppt	

Acetic acid glacial
for trace metal analysis

NEW

Trace metal grade

TraceMetal



packaging	product code
500 mL Coated Glass Bottle	A/0418/PB08
1 L Coated Glass Bottle	A/0418/PB15

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.04
Density at 20°C: 1.05
Boiling point: 117-118°C
Boiling pressure: 760 mmHg
Melting point: 16-16.5°C

Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
Risk: R10, R35
Safety: S23, S26, S45

Assay: >99%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.5 ppb
Aluminium (Al)	<0.5 ppb	Praséodymium (Pr)	<0.1 ppb
Antimony (Sb)	<0.1 ppb	Rhenium (Re)	<0.1 ppb
Arsenic (As)	<0.1 ppb	Rhodium (Rh)	<0.1 ppb
Barium (Ba)	<0.1 ppb	Rubidium (Rb)	<0.1 ppb
Beryllium (Be)	<0.1 ppb	Ruthenium (Ru)	<0.1 ppb
Bismuth (Bi)	<0.1 ppb	Samarium (Sm)	<0.1 ppb
Cadmium (Cd)	<0.1 ppb	Scandium (Sc)	<0.1 ppb
Calcium (Ca)	<1 ppb	Selenium (Se)	<0.5 ppb
Cerium (Ce)	<0.1 ppb	Silver (Ag)	<0.1 ppb
Cesium (Cs)	<0.1 ppb	Sodium (Na)	<1 ppb
Chromium (Cr)	<0.1 ppb	Strontium (Sr)	<0.1 ppb
Cobalt (Co)	<0.1 ppb	Sulfate (SO_4)	<0.5 ppb
Copper (Cu)	<0.2 ppb	Tellurium (Te)	<0.1 ppb
Dysprosium (Dy)	<0.1 ppb	Terbium (Tb)	<0.1 ppb
Erbium (Er)	<0.1 ppb	Thallium (Tl)	<0.1 ppb
Europium (Eu)	<0.1 ppb	Thorium (Th)	<0.1 ppb
Gadolinium (Gd)	<0.1 ppb	Thulium (Tm)	<0.1 ppb
Gallium (Ga)	<0.1 ppb	Tin (Sn)	<0.1 ppb
Germanium (Ge)	<0.1 ppb	Titanium (Ti)	<0.1 ppb
Hafnium (Hf)	<0.1 ppb	Total chloride (Cl)	<1 ppb
Holmium (Ho)	<0.1 ppb	Total phosphorus (P)	<1 ppb
Indium (In)	<0.1 ppb	Tungsten (W)	<0.1 ppb
Iron (Fe)	<1 ppb	Uranium (U)	<0.1 ppb
Lanthanum (La)	<0.1 ppb	Vanadium (V)	<0.1 ppb
Lead (Pb)	<0.1 ppb	Ytterbium (Yb)	<0.1 ppb
Lithium (Li)	<0.1 ppb	Yttrium (Y)	<0.1 ppb
Lutetium (Lu)	<0.1 ppb	Zinc (Zn)	<0.5 ppb
Magnesium (Mg)	<0.2 ppb	Zirconium (Zr)	<0.1 ppb
Manganese (Mn)	<0.1 ppb	Substances	
Molybdenum (Mo)	<0.2 ppb	reducing dichromate	Conform
Neodymium (Nd)	<0.1 ppb	Substances	
Nickel (Ni)	<0.1 ppb	reducing permanganate	Conform
Platinum (Pt)	<0.1 ppb		



Tin (Sn)	<0.005 ppm	Vanadium (V)	<0.002 ppm
Titanium (Ti)	<0.005 ppm	Zinc (Zn)	<0.01 ppm
Total chloride (Cl)	<1 ppm	Zirconium (Zr)	<0.005 ppm
Total phosphorus (P)	<0.5 ppm	Freezing Point	>16.3°C
Total sulphur (S)	<0.1 ppm		

Acetic acid glacial
for analysis

NEW SPEC.

Certified AR



packaging	product code
500 mL Plastic bottle	A/0400/PB08
1 L Plastic bottle	A/0400/PB15
2.5 L Plastic bottle	A/0400/PB17
25 L Metal drum	A/0400/25

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.05
Density at 20°C: 1.05
Boiling point: 117 to 118°C
Boiling pressure: 760 mmHg
Melting point: 16 to 16.5°C

Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
EINECS: 200-580-7
Risk: R10, R35
Safety: S23, S26, S45

Assay: >99.7%

Guaranteed analysis

Colour	<10 APHA	Mercury (Hg)	<0.02 ppm
Substances		Molybdenum (Mo)	<0.01 ppm
reducing dichromate	<0.005%	Nickel (Ni)	<0.02 ppm
Residue after evaporation	<5 ppm	Potassium (K)	<0.5 ppm
Water	<0.2%	Silver (Ag)	<0.01 ppm
Aluminium (Al)	<0.01 ppm	Sodium (Na)	<1 ppm
Arsenic (As)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Calcium (Ca)	<1 ppm	Total chloride (Cl)	<0.0001 %
Chromium (Cr)	<0.2 ppm	Total nitrogen (N)	<2 ppm
Cobalt (Co)	<0.01 ppm	Total phosphorus (P)	<1 ppm
Copper (Cu)	<0.02 ppm	Total silicon (Si)	<1 ppm
Iron (Fe)	<0.2 ppm	Total sulphur (S)	<1 ppm
Lead (Pb)	<0.01 ppm	Vanadium (V)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Zinc (Zn)	<0.05 ppm
Magnesium (Mg)	<0.05 ppm	Acetic anhydride	<0.2 %
Manganese (Mn)	<0.01 ppm	Formic acid (H. COOH)	<0.05 %

Lot analysis on the label.

Acetic acid glacial ($d=1.08$) is equivalent to a strength of 17.4M (17.4N).

see page 279 for suitable Tap & accessories.

Acetic acid glacial 99-100%
extra pure

SLR, Eur.Ph.,BP, USP



packaging	product code
1 L Plastic bottle	A/0360/PB15
2.5 L Plastic bottle	A/0360/PB17
25 L Metal drum	A/0360/25

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.05
Density at 20°C: 1.05
Boiling point: 117 to 118°C
Boiling pressure: 760 mmHg
Freezing point: >15°C
Melting point: 16 to 16.5°C

Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
EINECS: 200-580-7
Risk: R10, R35
Safety: S23, S26, S45

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Potassium (K)	<10 ppm
Copper (Cu)	<1 ppm	Sodium (Na)	<20 ppm
Iron (Fe)	<2 ppm	Total chloride (Cl)	<0.0005%
Lead (Pb)	<2 ppm	Total sulphur (S)	<5 ppm
Magnesium (Mg)	<2 ppm	Zinc (Zn)	<1 ppm

Acetic acid glacial ($d=1.08$) is equivalent to a strength of 17.4M (17.4N).

see page 279 for suitable Tap & accessories.

Acetic acid glacial
for trace metal analysis

NEW SPEC.

Primar Plus

PrimarPlus



packaging	product code
250 mL Coated Glass Bottle	A/0411/PB07
500 mL Coated Glass Bottle	A/0411/PB08
1 L Coated Glass Bottle	A/0411/PB15
2.5 L Coated Glass Bottle	A/0411/PB17

$C_2H_4O_2$
CAS: 64-19-7
MW: 60.04
Density at 20°C: 1.05
Boiling point: 117-118°C
Boiling pressure: 760 mmHg
Melting point: 16-16.5°C

Flash point: 40°C
ADR/RID: 3(8)/II
UN: 2789
HS-Nr: 29152100
EINECS: 200-580-7
Risk: R10, R35
Safety: S23, S26, S45

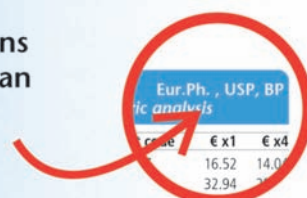
Assay: >99%

Guaranteed analysis

Aluminium (Al)	<0.005 ppm	Indium (In)	<0.005 ppm
Antimony (Sb)	<0.005 ppm	Iron (Fe)	<0.05 ppm
Arsenic (As)	<0.005 ppm	Lead (Pb)	<0.002 ppm
Barium (Ba)	<0.05 ppm	Lithium (Li)	<0.002 ppm
Beryllium (Be)	<0.005 ppm	Magnesium (Mg)	0.005 ppm
Bismuth (Bi)	<0.005 ppm	Manganese (Mn)	<0.002 ppm
Boron (B)	<0.005 ppm	Mercury (Hg)	<0.005 ppm
Cadmium (Cd)	<0.002 ppm	Molybdenum (Mo)	<0.002 ppm
Calcium (Ca)	<0.1 ppm	Nickel (Ni)	<0.002 ppm
Chromium (Cr)	<0.005 ppm	Potassium (K)	<0.05 ppm
Cobalt (Co)	<0.002 ppm	Selenium (Se)	<0.005 ppm
Copper (Cu)	<0.005 ppm	Strontium (Sr)	<0.002 ppm
Gallium (Ga)	<0.005 ppm	Thallium (Tl)	<0.005 ppm
Germanium (Ge)	<0.005 ppm		



The ready to use solutions
comply with the European
Pharmacopeia
Discover them
at page 266



Acetic acid glacial

pure, For non aqueous titrations

packaging	product code
2.5 L Coated Glass Bottle	A/0420/PB17
$C_2H_4O_2$ CAS: 64-19-7 MW: 60.05 Density at 20°C: 1.05 Boiling point: 117 to 118°C Boiling pressure: 760 mmHg Melting point: 16 to 16.5°C Flash point: 40°C ADR/RID: 3(8)/II UN: 2789 HS-Nr: 29152100 EINECS: 200-580-7 Risk: R10, R35 Safety: S23, S26, S45	
Guaranteed analysis Water <0.1%	

Acetic acid glacial

pure, aldehyde free

packaging	product code
500 mL Plastic bottle	A/0430/PB08
$C_2H_4O_2$ CAS: 64-19-7 MW: 60.05 Density at 20°C: 1.05 Boiling point: 117 to 118°C Boiling pressure: 760 mmHg Freezing point: >16.1°C Melting point: 16 to 16.5°C Flash point: 40°C ADR/RID: 3(8)/II UN: 2789 HS-Nr: 29152100 EINECS: 200-580-7 Risk: R10, R35 Safety: S23, S26, S45	
Absorbance specification Max. Absorbance (1 cm cell v HPLC water) 570 nm <0.02 A.U. Suitable for use in determination of total cholesterol in blood plasma. Ref. Macynre & Ralston, Biochem J. 1954.56,XLIII. Acetic acid glacial (d=1.08) is equivalent to a strength of 17.4M (17.4N).	

Acetic acid solution 0.1M (0.1N)

NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/0551C/05
6 ampoule	J/0551C/90
Solute HS-Nr: 38220000 Each ampoule makes 1 L of solution. See the full range of Standard Volumetric solution page 266.	

Acetic acid solution 1M (1N approx.6%)

pure, ready to use NEW SPEC.

packaging	product code
2.5 L Plastic bottle	J/0550/17
HS-Nr: 38220000	

Acetic acid solution 2M (2N approx.12%)

pure, ready to use NEW SPEC.

packaging	product code
2.5 L Plastic bottle	J/0549/PB17
ADR/RID: 8/III UN: 2790 HS-Nr: 29152100 Risk: R36/38 Safety: S23, S26, S45	

Acetic anhydride

for analysis

Certified AR

packaging	product code
500 mL Plastic bottle	A/0480/PB08
2.5 L Plastic bottle	A/0480/PB17
$C_4H_6O_3$ CAS: 108-24-7 MW: 102.09 Density at 20°C: 1.09 Boiling point: 140°C Boiling pressure: 760 mmHg Melting point: -73.1°C Flash point: 54°C ADR/RID: 3(8)/II UN: 1715 HS-Nr: 29152400 EINECS: 203-564-8 Risk: R10, R20/22, R34 Safety: S26, S36/37/39, S45	
Assay: >98% Guaranteed analysis Colour <10 APHA Substances reducing $KMnO_4$ <0.01% Calcium (Ca) <0.5 ppm Chromium (Cr) <0.02 ppm Copper (Cu) <0.02 ppm Iron (Fe) <0.1 ppm Lead (Pb) <0.02 ppm Magnesium (Mg) <0.05 ppm Nickel (Ni) <0.02 ppm Potassium (K) <0.5 ppm Sodium (Na) <1 ppm Total chloride (Cl) <0.0002 % Total nitrogen (N) <5 ppm Total phosphorus (P) <5 ppm Total sulphur (S) <2 ppm Zinc (Zn) <0.1 ppm	
Typical analysis Aluminium (Al) <0.1 ppm Arsenic (As) <0.01 ppm Barium (Ba) <0.01 ppm Cadmium (Cd) <0.01 ppm Cobalt (Co) <0.01 ppm Lithium (Li) <0.01 ppm Manganese (Mn) <0.01 ppm Molybdenum (Mo) <0.01 ppm Strontium (Sr) <0.01 ppm Titanium (Ti) <0.01 ppm Vanadium (V) <0.01 ppm	

Lot analysis on the label.	
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Acetic anhydride

extra pure

SLR

packaging	product code
500 mL Plastic bottle	A/0440/PB08
2.5 L Plastic bottle	A/0440/PB17
$C_4H_6O_3$ CAS: 108-24-7 MW: 102.09 Density at 20°C: 1.09 Boiling point: 140°C Boiling pressure: 760 mmHg Melting point: -73.1°C Flash point: 54°C ADR/RID: 3(8)/II UN: 1715 HS-Nr: 29152400 EINECS: 203-564-8 Risk: R10, R20/22, R34 Safety: S26, S36/37/39, S45	
Assay: >97% Guaranteed analysis Colour <20 APHA Calcium (Ca) <10 ppm Copper (Cu) <10 ppm Iron (Fe) <10 ppm Lead (Pb) <10 ppm Magnesium (Mg) <10 ppm Potassium (K) <10 ppm Sodium (Na) <20 ppm Total chloride (Cl) <0.005% Total nitrogen (N) <50 ppm Total phosphorus (P) <50 ppm Total sulphur (S) <50 ppm Zinc (Zn) <10 ppm	

Acetone

for HPLC

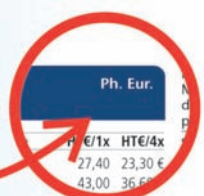
Certified

packaging	product code
1 L Glass bottle	A/0606/15
2.5 L Glass bottle	A/0606/17
C_3H_6O CAS: 67-64-1 MW: 58.08 Density at 20°C: 0.79 Boiling point: 56°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: -20°C ADR/RID: 3/II UN: 1090 HS-Nr: 29141100 EINECS: 200-662-2 Risk: R11, R36, R66, R67 Safety: S9, S16, S26	

Assay (GC): >99.8% Guaranteed analysis Acidity / Alkalinity <0.0003 meq/g Residue after evaporation <2 ppm Water <0.1% Absorbance specification Max. Absorbance (1 cm cell v HPLC water) 335 nm <0.3 A.U. 340 nm <0.09 A.U. 350 nm <0.005 A.U. 360 nm <0.005 A.U. 370 nm <0.005 A.U.	
Lot analysis on the label including an absorbance curve. Filtered to 0.2 µm.	

Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia

Read more on page 191



Acetone NEW SPEC. for trace metal analysis

Primar



packaging	product code
2.5 L Glass bottle	A/0604/17

C₃H₆O
CAS: 67-64-1
MW: 58.08
Density at 20°C: 0.79
Boiling point: 56°C
Boiling pressure: 760 mmHg
Melting point: -95°C

Flash point: -20°C
ADR/RID: 3/II
UN: 1090
HS-Nr: 29141100
EINECS: 200-662-2
Risk: R11, R36, R66, R67
Safety: S9, S16, S26



Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Manganese (Mn)	<0.005 ppm
Colour	<5 APHA	Molybdenum (Mo)	<0.005 ppm
Residue after evaporation	<2 ppm	Nickel (Ni)	<0.005 ppm
Substances		Potassium (K)	<0.05 ppm
reducing KMnO ₄	<0.0005%	Silver (Ag)	<0.005 ppm
Water	<0.2%	Sodium (Na)	<0.2 ppm
Aluminium (Al)	<0.02 ppm	Strontium (Sr)	<0.005 ppm
Barium (Ba)	<0.005 ppm	Titanium (Ti)	<0.005 ppm
Cadmium (Cd)	<0.005 ppm	Total phosphorus (P)	<0.02 ppm
Calcium (Ca)	<0.05 ppm	Total silicon (Si)	<0.02 ppm
Chromium (Cr)	<0.005 ppm	Total sulphur (S)	<0.1 ppm
Cobalt (Co)	<0.005 ppm	Vanadium (V)	<0.005 ppm
Copper (Cu)	<0.01 ppm	Zinc (Zn)	<0.01 ppm
Iron (Fe)	<0.05 ppm	Di-iso-propylether	<0.005%
Lead (Pb)	<0.005 ppm	Methanol	<0.05%
Lithium (Li)	<0.005 ppm	Methylpentadienes	<0.02%
Magnesium (Mg)	<0.02 ppm		

Acetone for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	A/0603/15
2.5 L Glass bottle	A/0603/17

C₃H₆O
CAS: 67-64-1
MW: 58.08
Density at 20°C: 0.79
Boiling point: 56°C
Boiling pressure: 760 mmHg
Melting point: -95°C

Flash point: -20°C
ADR/RID: 3/II
UN: 1090
HS-Nr: 29141100
EINECS: 200-662-2
Risk: R11, R36, R66, R67
Safety: S9, S16, S26



Assay (GC): >99.8%

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.2%
GC (NPD) analysis	Conform		

GC Analysis

Pesticides analysis: No impurity peak that has a retention time greater than Lindane will have a peak height greater than produced by 2500 pg / mL Heptachloropoxide (ECD) and 10 pg / mL Parathion (NPD).

Hydrocarbon analysis: no impurity chain length is greater than Dodecane, is present at a concentration greater than 0.01 ppm (by FID).

Conditions :

Column: J&W DB 5; 30m x 0.32mm x 0.1µm dF.

Temperature profile:

(1) 50°C, 2 min

(2) 40°C / min up to 320°C

(3) 320°C, 30 min

Injection: 5µl cold on-column.

Acetone extra dry, for synthesis



packaging	product code
1 L Glass bottle	A/0602/15
2.5 L Glass bottle	A/0602/17

C₃H₆O
CAS: 67-64-1
MW: 58.08
Density at 20°C: 0.79
Boiling point: 56°C
Boiling pressure: 760 mmHg
Melting point: -95°C

Flash point: -20°C
ADR/RID: 3/II
UN: 1090
HS-Nr: 29141100
EINECS: 200-662-2
Risk: R11, R36, R66, R67
Safety: S9, S16, S26



Assay (GC): >99.8%

Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.01%
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Acetone NEW SPEC. for electronic use (MOS)

packaging	product code
2.5 L Glass bottle	A/0601/17
5 L Aluminium drum	A/0601/21
25 L Metal drum	A/0601/25

C₃H₆O
CAS: 67-64-1
MW: 58.08
Density at 20°C: 0.79
Boiling point: 56°C
Boiling pressure: 760 mmHg
Melting point: -95°C

Flash point: -20°C
ADR/RID: 3/II
UN: 1090
HS-Nr: 29141100
EINECS: 200-662-2
Risk: R11, R36, R66, R67
Safety: S9, S16, S26



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Magnesium (Mg)	<0.02 ppm
Colour	<5 APHA	Manganese (Mn)	<0.02 ppm
Residue after evaporation	<5 ppm	Molybdenum (Mo)	<0.02 ppm
Substances		Nickel (Ni)	<0.02 ppm
reducing KMnO ₄	<0.0005%	Potassium (K)	<0.1 ppm
Water	<0.2%	Sodium (Na)	<0.2 ppm
Aluminium (Al)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Total phosphorus (P)	<0.02 ppm
Calcium (Ca)	<0.1 ppm	Total silicon (Si)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Zinc (Zn)	<0.02 ppm
Copper (Cu)	<0.01 ppm	Di-iso-propylether	<0.005%
Iron (Fe)	<0.05 ppm	Methanol	<0.05%
Lead (Pb)	<0.02 ppm	Methylpentadienes	<0.02%
Lithium (Li)	<0.02 ppm		

see page 279 for suitable Tap & accessories.

Acetone NEW SPEC. for analysis

Certified AR Eur.Ph



packaging	product code
1 L Glass bottle	A/0600/15
2.5 L Glass bottle	A/0600/17
2.5 L Coated Glass Bottle	A/0600/PB17
2.5 L Plastic bottle	A/0600/PC17
5 L Metal can	A/0600/21
5 L Plastic bottle	A/0600/PC21
25 L Metal drum	A/0600/25
25 L Metal drum	A/0600/DH25
200 L Metal drum	A/0600/27

C₃H₆O
CAS: 67-64-1
MW: 58.08
Density at 20°C: 0.79
Boiling point: 56°C
Boiling pressure: 760 mmHg
Melting point: -95°C

Flash point: -20°C
ADR/RID: 3/II
UN: 1090
HS-Nr: 29141100
EINECS: 200-662-2
Risk: R11, R36, R66, R67
Safety: S9, S16, S26



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Iron (Fe)	<0.05 ppm
Colour	<5 APHA	Lead (Pb)	<0.02 ppm
Residue after evaporation	<5 ppm	Magnesium (Mg)	<0.02 ppm
Substances		Potassium (K)	<0.1 ppm
reducing KMnO ₄	<0.0005%	Sodium (Na)	<0.2 ppm
Water	<0.2%	Total phosphorus (P)	<0.02 ppm
Calcium (Ca)	<0.1 ppm	Zinc (Zn)	<0.02 ppm
Copper (Cu)	<0.01 ppm		

Typical analysis

Aluminium (Al)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Total silicon (Si)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Di-iso-propylether	<0.05 %
Manganese (Mn)	<0.02 ppm	Methanol	<0.02 %
Molybdenum (Mo)	<0.02 ppm	Methylpentadienes	<0.02 %

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Acetone extra pure

SLR



packaging	product code
1 L Glass bottle	A/0560/15
2.5 L Glass bottle	A/0560/17
2.5 L Coated Glass Bottle	A/0560/PB17
5 L Metal can	A/0560/21
5 L Plastic bottle	A/0560/PC21
10 L Plastic Keg	A/0560/PC24
25 L Metal drum	A/0560/25
25 L Metal drum	A/0560/DH25
200 L Metal drum	A/0560/27

C_3H_6O
 CAS: 67-64-1
 MW: 58.08
 Density at 20°C: 0.79
 Boiling point: 56°C
 Boiling pressure: 760 mmHg
 Melting point: -95°C
 Flash point: -20°C
 ADR/RID: 3/II
 UN: 1090
 HS-Nr: 29141100
 EINECS: 200-662-2
 Risk: R11, R36, R66, R67
 Safety: S9, S16, S26



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Copper (Cu)	<2 ppm
Colour	<10 APHA	Iron (Fe)	<10 ppm
Residue after evaporation	<50 ppm	Lead (Pb)	<5 ppm
Substances		Magnesium (Mg)	<1 ppm
reducing $KMnO_4$	<0.005%	Potassium (K)	<1 ppm
Water	<0.5%	Sodium (Na)	<5 ppm
Calcium (Ca)	<1 ppm	Zinc (Zn)	<1 ppm

see page 279 for suitable Tap & accessories.

Acetone Technical

packaging	product code
2.5 L Glass bottle	A/0520/17
2.5 L Coated Glass Bottle	A/0520/PB17
25 L Metal drum	A/0520/25

C_3H_6O
 CAS: 67-64-1
 MW: 58.08
 Density at 20°C: 0.79
 Boiling point: 56°C
 Boiling pressure: 760 mmHg
 Melting point: -95°C
 Flash point: -20°C
 ADR/RID: 3/II
 UN: 1090
 HS-Nr: 29141100
 EINECS: 200-662-2
 Risk: R11, R36, R66, R67
 Safety: S9, S16, S26



Assay (GC): >98%

see page 279 for suitable Tap & accessories.

Acetonitrile for HPLC-MS

Certified



packaging	product code
1 L Glass bottle	A/0638/15
2.5 L Glass bottle	A/0638/17

C_2H_3N
 CAS: 75-05-8
 MW: 41.04
 Density at 20°C: 0.78
 Boiling point: 81 to 82°C
 Boiling pressure: 760 mmHg
 Melting point: -46°C
 Flash point: 2°C
 ADR/RID: 3/II
 UN: 1648
 HS-Nr: 29269095
 EINECS: 200-835-2
 Risk: R11, R20/21/22, R36
 Safety: S16, S36/37



Assay (GC): >99.9%

Guaranteed analysis

Acidity	<0.0002 meq/g	Copper (Cu)	<0.01 ppm
Alkalinity	<0.0001 meq/g	Iron (Fe)	<0.01 ppm
LC-MS analysis	Conform	Lead (Pb)	<0.01 ppm
Residue after evaporation	<2 ppm	Magnesium (Mg)	<0.01 ppm
Water	<0.01%	Manganese (Mn)	<0.01 ppm
Aluminium (Al)	<0.05 ppm	Nickel (Ni)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Potassium (K)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Silver (Ag)	<0.01 ppm
Calcium (Ca)	<0.01 ppm	Sodium (Na)	<0.05 ppm
Chromium (Cr)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Zinc (Zn)	<0.01 ppm

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

200 nm	<0.03 A.U.	Gradient (max eluted peak)	<0.2 mA.U.
230 nm	<0.005 A.U.		

Absorbance of the largest eluted peak < 0.2 mA.U.

Conditions :

Column: C18 Reverse Phase.

Flow rate: 2 mL / min

Wavelength 254 nm

Solvent A: Water

Solvent B: Acetonitrile

Gradient: linear 95% / 5% B 100% B during 20 min.

Lot analysis on the label including an absorbance curve.

This product has been tested on an LC-MS instrument to ensure suitability.

Filtered to 0.2 µm.

Acetonitrile HPLC for gradient analysis

Certified Advanced HPLC



packaging	product code
1 L Coated Glass Bottle	A/0632/PB15
2.5 L Coated Glass Bottle	A/0632/PB17

C_2H_3N
 CAS: 75-05-8
 MW: 41.04
 Density at 20°C: 0.78
 Boiling point: 81 to 82°C
 Boiling pressure: 760 mmHg
 Melting point: -46°C
 Flash point: 2°C
 ADR/RID: 3/II
 UN: 1648
 HS-Nr: 29269095
 Risk: R11, R20/21/22, R36
 Safety: S16, S36/37



Guaranteed analysis

Acidity / Alkalinity	<0.0008 meq/g	Water	<0.01%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

195 nm	<0.1 A.U.	240 nm	<0.005 A.U.
200 nm	<0.05 A.U.	250 nm	<0.005 A.U.
210 nm	<0.02 A.U.	Drift in the baseline	<8 mA.U.
220 nm	<0.01 A.U.	Gradient (max eluted peak)	<0.1 mA.U.
230 nm	<0.005 A.U.		

Absorbance of the largest eluted peak < 0.2 mA.U.

Conditions :

Column: C18 Reverse Phase.

Flow rate: 3 mL / min

Wavelength 220 nm

Solvent A: Water

Solvent B: Acetonitrile

Gradient: 10 min at 30% solvent B followed by a linear gradient to 95% solvent B over 15 min.

Lot analysis on the label including an absorbance curve.

NIST Certified Standard from SPEX

A full range of Mono
 & Multi-elemental standard
 and Calibration solution
 for ICP & ICP-MS

Discover them on page 258



Acetonitrile HPLC for gradient analysis

Certified, Eur.Ph



packaging	product code
1 L Glass bottle	A/0627/15
2.5 L Glass bottle	A/0627/17
2.5 L Coated Glass Bottle	A/0627/PB17
5 L Aluminium drum	A/0627/21
25 L Metal drum	A/0627/DH25
200 L Stainless steel drum	A/0627/27SS

C₂H₃N
CAS: 75-05-8
MW: 41.05
Density at 20°C: 0.78
Boiling point: 81 to 82°C
Boiling pressure: 760 mmHg
Melting point: -46°C

Flash point: 2°C

ADR/RID: 3/II

UN: 1648

HS-Nr: 29269095

EINECS: 200-835-2

Risk: R11, R20/21/22, R36

Safety: S16, S36/37



Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity <0.0008 meq/g Water <0.01%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

195 nm <0.1 A.U.	230 nm <0.005 A.U.
200 nm <0.05 A.U.	240 nm <0.005 A.U.
210 nm <0.02 A.U.	250 nm <0.005 A.U.
220 nm <0.01 A.U.	Gradient (max eluted peak)... <0.01 A.U.

HPLC Analysis :

Absorbance of the largest eluted peak < 0.01 A.U.

Conditions :

Column: C18 Reverse Phase.

Flow rate: 2 mL / min

Wavelength 210 nm

Absorbance range: 0-0.32 AU.

Solvent A: Water

Solvent B: Acetonitrile

Gradient: linear 95% /5% B 100% B during 20 min.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Acetonitrile for HPLC-RMN with low propionitrile level

Certified



packaging	product code
1 L Glass bottle	A/0636/15
2.5 L Glass bottle	A/0636/17

C₂H₃N
CAS: 75-05-8
MW: 41.04
Density at 20°C: 0.78
Boiling point: 81 to 82°C
Boiling pressure: 760 mmHg
Melting point: -46°C

Flash point: 2°C

ADR/RID: 3/II

UN: 1648

HS-Nr: 29269095

EINECS: 200-835-2

Risk: R11, R20/21/22, R36

Safety: S16, S36/37



Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity <0.0008 meq/g Water <0.01%
Residue after evaporation <2 ppm Propionitrile <0.0005%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

195 nm <0.1 A.U.	230 nm <0.005 A.U.
200 nm <0.05 A.U.	240 nm <0.005 A.U.
210 nm <0.02 A.U.	250 nm <0.005 A.U.
220 nm <0.01 A.U.	Gradient (max eluted peak)... <10 mA.U.

HPLC Analysis :

Absorbance of the largest eluted peak < 0.01 A.U.

Conditions :

Column: C18 Reverse Phase.

Flow rate: 2 mL / min

Wavelength 210 nm

Solvent A: Water

Solvent B: Acetonitrile

Gradient: linear 95% /5% B 100% B during 20 min.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

Acetonitrile for HPLC

Certified



packaging	product code
1 L Glass bottle	A/0626/15
2.5 L Glass bottle	A/0626/17
2.5 L Coated Glass Bottle	A/0626/PB17
5 L Aluminium drum	A/0626/21
25 L Stainless steel drum	A/0626/25SS
25 L Metal drum	A/0626/DH25
200 L Stainless steel drum	A/0626/27SS

C₂H₃N
CAS: 75-05-8
MW: 41.05
Density at 20°C: 0.78
Boiling point: 81 to 82°C
Boiling pressure: 760 mmHg
Melting point: -46°C

Flash point: 2°C

ADR/RID: 3/II

UN: 1648

HS-Nr: 29269095

EINECS: 200-835-2

Risk: R11, R20/21/22, R36

Safety: S16, S36/37



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0008 meq/g Water <0.05%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

230 nm <0.05 A.U.	260 nm <0.005 A.U.
240 nm <0.015 A.U.	270 nm <0.005 A.U.
250 nm <0.01 A.U.	280 nm <0.005 A.U.
290 nm <0.005 A.U.	

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Acetonitrile HPLC for fluorescence detection

Certified



packaging	product code
1 L Coated Glass Bottle	A/0630/PB15
2.5 L Coated Glass Bottle	A/0630/PB17

C₂H₃N
CAS: 75-05-8
MW: 41.05
Density at 20°C: 0.78
Boiling point: 81 to 82°C
Boiling pressure: 760 mmHg
Melting point: -46°C

Flash point: 2°C

ADR/RID: 3/II

UN: 1648

HS-Nr: 29269095

EINECS: 200-835-2

Risk: R11, R20/21/22, R36

Safety: S16, S36/37



Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity <0.0008 meq/g Water <0.02%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.1 A.U.	230 nm <0.01 A.U.
205 nm <0.05 A.U.	240 nm <0.005 A.U.
210 nm <0.035 A.U.	250 nm <0.005 A.U.
220 nm <0.025 A.U.	Fluorescence Conform

Excitation in the range 250-750nm produces no fluorescence emission greater than the solvent natural Raman signal at 350nm excitation. This is equivalent to the emission maximum of approximately 1ppb quinine sulfate.

Lot analysis on the label.

Filtered to 0.2 µm (excluding fluorescence scan).

Acetonitrile HPLC for electrochemical detection

Certified



packaging	product code
2.5 L Coated Glass Bottle	A/0635/PB17

C₂H₃N
CAS: 75-05-8
MW: 41.05
Density at 20°C: 0.78
Boiling point: 81 to 82°C
Boiling pressure: 760 mmHg
Melting point: -46°C

Flash point: 2°C

ADR/RID: 3/II

UN: 1648

HS-Nr: 29269095

EINECS: 200-835-2

Risk: R11, R20/21/22, R36

Safety: S16, S36/37



Assay (GC): >99.6%

Guaranteed analysis

Acidity	<0.0008 meq/g	Residue after evaporation	<2 ppm
Electrochemical test	Conform	Water	<0.05%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

230 nm	<0.1 A.U.	260 nm	<0.008 A.U.
240 nm	<0.015 A.U.	270 nm	<0.006 A.U.
250 nm	<0.01 A.U.	280 nm	<0.005 A.U.

Purified then tested by HPLC-EC to show low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Acetonitrile for trace metal analysis

Primar



packaging	product code
2.5 L Glass bottle	A/0624/17

C ₂ H ₃ N	Flash point: 2°C	F Xn
CAS: 75-05-8	ADR/RID: 3/II	
MW: 41.05	UN: 1648	
Density at 20°C: 0.78	HS-Nr: 29269095	
Boiling point: 81 to 82°C	EINECS: 200-835-2	
Boiling pressure: 760 mmHg	Risk: R11, R20/21/22, R36	
Melting point: -46°C	Safety: S16, S36/37	

Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Molybdenum (Mo)	<0.005 ppm
Colour	<5 APHA	Nickel (Ni)	<0.005 ppm
Residue after evaporation	<2 ppm	Potassium (K)	<0.05 ppm
Water	<0.05%	Silver (Ag)	<0.005 ppm
Aluminium (Al)	<0.02 ppm	Sodium (Na)	<0.2 ppm
Barium (Ba)	<0.005 ppm	Strontium (Sr)	<0.005 ppm
Cadmium (Cd)	<0.005 ppm	Titanium (Ti)	<0.005 ppm
Calcium (Ca)	<0.05 ppm	Total phosphorus (P)	<0.02 ppm
Chromium (Cr)	<0.005 ppm	Total silicon (Si)	<0.02 ppm
Cobalt (Co)	<0.005 ppm	Total sulphur (S)	<0.1 ppm
Copper (Cu)	<0.01 ppm	Vanadium (V)	<0.005 ppm
Iron (Fe)	<0.05 ppm	Zinc (Zn)	<0.01 ppm
Lead (Pb)	<0.005 ppm	Allyl alcohol	<0.005%
Lithium (Li)	<0.005 ppm	Methanol	<0.005%
Magnesium (Mg)	<0.02 ppm	Propionitrile	<0.05%
Manganese (Mn)	<0.005 ppm		

Acetonitrile for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	A/0623/15
2.5 L Glass bottle	A/0623/17

C ₂ H ₃ N	Flash point: 2°C	F Xn
CAS: 75-05-8	ADR/RID: 3/II	
MW: 41.05	UN: 1648	
Density at 20°C: 0.78	HS-Nr: 29269095	
Boiling point: 81 to 82°C	EINECS: 200-835-2	
Boiling pressure: 760 mmHg	Risk: R11, R20/21/22, R36	
Melting point: -46°C	Safety: S16, S36/37	

Assay (GC): >99.5%

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.1%
GC (NPD) analysis	Conform		

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL heptachloreoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile:

(1) 50°C for 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Acetonitrile extra dry, for synthesis



packaging	product code
2.5 L Coated Glass Bottle	A/0622/PB17

C ₂ H ₃ N	Flash point: 2°C	F Xn
CAS: 75-05-8	ADR/RID: 3/II	
MW: 41.05	UN: 1648	
Density at 20°C: 0.78	HS-Nr: 29269095	
Boiling point: 81 to 82°C	EINECS: 200-835-2	
Boiling pressure: 760 mmHg	Risk: R11, R20/21/22, R36	
Melting point: -46°C	Safety: S16, S36/37	

Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.01%
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Acetonitrile for analysis

Certified AR



packaging	product code
1 L Coated Glass Bottle	A/0621/PB15
2.5 L Coated Glass Bottle	A/0621/PB17
5 L Metal can	A/0621/21
25 L Metal drum	A/0621/25
200 L Metal drum	A/0621/27

C ₂ H ₃ N	Flash point: 2°C	F Xn
CAS: 75-05-8	ADR/RID: 3/II	
MW: 41.05	UN: 1648	
Density at 20°C: 0.78	HS-Nr: 29269090	
Boiling point: 81 to 82°C	EINECS: 200-835-2	
Boiling pressure: 760 mmHg	Risk: R11, R20/21/22, R36	
Melting point: -46°C	Safety: S16, S36/37	

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0008 meq/g	Iron (Fe)	<0.2 ppm
Colour	<10 APHA	Lead (Pb)	<0.05 ppm
Residue after evaporation	<10 ppm	Magnesium (Mg)	<0.05 ppm
Water	<0.1%	Potassium (K)	<0.05 ppm
Calcium (Ca)	<0.05 ppm	Sodium (Na)	<1 ppm
Copper (Cu)	<0.05 ppm	Zinc (Zn)	<0.5 ppm

Typical analysis

Aluminium (Al)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Total silicon (Si)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Allyl alcohol	<0.05 %
Manganese (Mn)	<0.02 ppm	Methanol	<0.05 %
Molybdenum (Mo)	<0.02 ppm	Propionitrile	<0.1 %

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Acetonitrile extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	A/0620/PB08
2.5 L Coated Glass Bottle	A/0620/PB17
5 L Metal can	A/0620/21
25 L Metal drum	A/0620/25
200 L Metal drum	A/0620/27

C ₂ H ₃ N	Flash point: 2°C	F Xn
CAS: 75-05-8	ADR/RID: 3/II	
MW: 41.05	UN: 1648	
Density at 20°C: 0.78	HS-Nr: 29269090	
Boiling point: 81 to 82°C	EINECS: 200-835-2	
Boiling pressure: 760 mmHg	Risk: R11, R20/21/22, R36	
Melting point: -46°C	Safety: S16, S36/37	

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Iron (Fe)	<2 ppm
Colour	<20 APHA	Lead (Pb)	<2 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<0.5 ppm
Water	<0.3%	Potassium (K)	<1 ppm
Calcium (Ca)	<1 ppm	Sodium (Na)	<5 ppm
Copper (Cu)	<2 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Acetophenone extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	A/0640/PB08
C ₆ H ₅ COCH ₃ CAS: 98-86-2 MW: 120.15	HS-Nr: 29143000 EINECS: 202-708-7	Xn
Assay (GC): >99%		

2-Acetoxybenzoic acid

See Acetylsalicylic acid, page 8

Acetylacetone extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	A/0800/PB08
C ₅ H ₈ O ₂ CAS: 123-54-6 MW: 100.12 Density at 20°C: 0.98 Boiling point: 133 to 135°C Boiling pressure: 760 mmHg Melting point: -23°C	Flash point: 35.5°C ADR/RID: 3(6.1)/III UN: 2310 HS-Nr: 29141900 EINECS: 204-634-0 Risk: R10, R22 Safety: S21, S23, S24/25	Xn
Assay (GC): >98%		

Guaranteed analysis

Colour	<30 APHA	Lead (Pb)	<5 ppm
Residue after evaporation	<100 ppm	Magnesium (Mg)	<0.5 ppm
Water	<0.5%	Potassium (K)	<0.5 ppm
Calcium (Ca)	<2 ppm	Sodium (Na)	<10 ppm
Copper (Cu)	<5 ppm	Zinc (Zn)	<0.5 ppm
Iron (Fe)	<5 ppm		

Acetyl chloride for analysis

Certified AR



packaging	product code
100 mL Coated Glass Bottle	A/0920/PB05
500 mL Coated Glass Bottle	A/0920/PB08

C ₂ H ₃ ClO CAS: 75-36-5 MW: 78.5 Density at 20°C: 1.1 Boiling point: 51°C Boiling pressure: 760 mmHg Melting point: -112°C	Flash point: 4°C ADR/RID: 3(8)/II UN: 1717 HS-Nr: 29159090 EINECS: 200-865-6 Risk: R11, R14, R34 Safety: S9, S16, S26, S45	F C
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Assay: >99%

Guaranteed analysis

Colour	<20 APHA	Manganese (Mn)	<0.02 ppm
Residue after evaporation	<0.01%	Molybdenum (Mo)	<0.02 ppm
Aluminium (Al)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Potassium (K)	<2 ppm
Cadmium (Cd)	<0.02 ppm	Sodium (Na)	<2 ppm
Calcium (Ca)	<2 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<0.02 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<2 ppm
Lead (Pb)	<2 ppm	Vanadium (V)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<2 ppm		

Lot analysis on the label.

Acetyl chloride extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle 2.5 L Coated Glass Bottle	A/0880/PB08 A/0880/PB17
C ₂ H ₃ ClO CAS: 75-36-5 MW: 78.5 Density at 20°C: 1.1 Boiling point: 51°C Boiling pressure: 760 mmHg Melting point: -112°C	Flash point: 4°C ADR/RID: 3(8)/II UN: 1717 HS-Nr: 29159090 EINECS: 200-865-6 Risk: R11, R14, R34 Safety: S9, S16, S26, S45	F C

Assay: >98%

Guaranteed analysis

Residue after evaporation	<0.05%	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<10 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<10 ppm		

Acetyl chloride technical

packaging	product code
5 Ampoules	A/0881/99

C ₂ H ₃ ClO CAS: 75-36-5 MW: 78.5 Density at 20°C: 1.1 Boiling point: 51°C Boiling pressure: 760 mmHg Melting point: -112°C	Flash point: 4°C ADR/RID: 3(8)/II UN: 1717 HS-Nr: 29159090 EINECS: 200-865-6 Risk: R11, R14, R34 Safety: S9, S16, S26, S45	F C
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Acetylsalicylic acid extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	A/0960/53
C ₉ H ₈ O ₄ CAS: 50-78-2 MW: 180.16 Density at 20°C: 1.35 Melting point: 136 to 140°C	Flash point: 250°C HS-Nr: 29182200 EINECS: 200-064-1 Risk: R22, R36/37/38 Safety: S26, S36/37/39	Xn

Assay: >99.5%

Guaranteed analysis

Residue after ignition	<0.1%	Lead (Pb)	<10 ppm
Arsenic (As)	<2 ppm	Salicylic acid	<0.05%

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Fisher Chemical products takes care of the environment!

Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



OPTIMA® grade for Ultra Trace Metal analysis



as low as 1-100 ppt level detection, tested up to 65 parameters
For ICP-MS & ICP equipment

designation	packsize	package type	product code	page
Acetic acid glacial	1 L	Bottle Teflon FEP	A/0415/15	1
	250 mL	Bottle Teflon FEP	A/0415/07	1
	500 mL	Bottle Teflon FEP	A/0415/08	1
Ammonia solution 20%	1 L	HDPE bottle	A/3365/15	17
	250 mL	HDPE bottle	A/3365/07	17
	500 mL	HDPE bottle	A/3365/08	17
Hydrobromic acid 44-49%	500 mL	Bottle Teflon FEP	H/0955/08	117
Hydrochloric acid 32-35%	1 L	Bottle Teflon PFA	H/1205/15	118
	250 mL	Bottle Teflon PFA	H/1205/07	118
	500 mL	Bottle Teflon PFA	H/1205/08	118
Hydrofluoric acid 47-51%	1 L	Bottle Teflon PFA	H/1435/15	121
	250 mL	Bottle Teflon PFA	H/1435/07	121
	500 mL	Bottle Teflon PFA	H/1435/08	121
Hydrogen peroxide 30-32 %	500 mL	Teflon FEP bottle	H/1830/08	123
Nitric acid 67-70%	1 L	Bottle Teflon FEP	N/2275/15	175
	250 mL	Bottle Teflon FEP	N/2275/07	175
	500 mL	Bottle Teflon FEP	N/2275/08	175
Perchloric acid 67-71%	1 L	Teflon FEP bottle	P/1295/15	186
	250 mL	Teflon FEP bottle	P/1295/07	186
	500 mL	Teflon FEP bottle	P/1295/08	186
Sulfuric acid 93-98%	1 L	Bottle Teflon FEP	S/9225/15	274
	250 mL	Bottle Teflon FEP	S/9225/07	274
	500 mL	Bottle Teflon FEP	S/9225/08	274
Water	1 L	Teflon bottle	W/0115/15	303
	500 mL	Teflon bottle	W/0115/08	303

TRACE METAL® grade for Trace Metal analysis NEW



at 1 ppb level detection, tested up to 65 parameters
For ICP-MS & ICP equipment

designation	packsize	package type	product code	page
Acetic acid glacial	1 L	Coated Glass Bottle	A/0418/PB15	2
	500 mL	Coated Glass Bottle	A/0418/PB08	2
Ammonia solution 20%	500 mL	HDPE bottle	A/3362/08	18
Hydrochloric acid 34-37%	1 L	Coated Glass Bottle	H/1202/PB15	118
	2.5 L	Coated Glass Bottle	H/1202/PB17	118
	500 mL	Coated Glass Bottle	H/1202/PB08	118
Hydrofluoric acid 47-51%	500 mL	LDPE bottle	H/1432/08	122
Hydrogen peroxide 30-32 %	1 L	LDPE bottle	H/1823/15	124
Nitric acid 67-70%	1 L	Coated Glass Bottle	N/2273/PB15	176
	500 mL	Coated Glass Bottle	N/2273/PB08	176
Perchloric acid 67-71%	1 L	Coated Glass Bottle	P/1292/PB15	186
	500 mL	Coated Glass Bottle	P/1292/PB08	186
Sulfuric acid 94-98%	1 L	Coated Glass Bottle	S/9232/PB15	275
	500 mL	Coated Glass Bottle	S/9232/PB08	275

PRIMAR PLUS® grade for Trace Metal analysis NEW SPEC.



at 1-10 ppb level detection, tested up to 40 parameters
For AAS equipment

designation	packsize	package type	product code	page
Acetic acid glacial	1 L	Coated Glass Bottle	A/0411/PB15	2
	2.5 L	Coated Glass Bottle	A/0411/PB17	2
	250 mL	Coated Glass Bottle	A/0411/PB07	2
	500 mL	Coated Glass Bottle	A/0411/PB08	2
Hydrochloric acid 35% d=1.18	1 L	Coated Glass Bottle	H/1196/PB15	118
	2.5 L	Coated Glass Bottle	H/1196/PB17	118
	250 mL	Coated Glass Bottle	H/1196/PB07	118
	500 mL	Coated Glass Bottle	H/1196/PB08	118
Nitric acid 68% d =1.42	1 L	Coated Glass Bottle	N/2272/PB15	176
	2.5 L	Coated Glass Bottle	N/2272/PB17	176
	500 mL	Coated Glass Bottle	N/2272/PB08	176

PRIMAR PLUS® grade for Trace Metal analysis **NEW SPEC.**

designation	packsize	package type	product code	page
Sulfuric acid 94-98% d=1.83	1 L	Coated Glass Bottle	S/9231/PB15	275
	2.5 L	Coated Glass Bottle	S/9231/PB17	275
	250 mL	Coated Glass Bottle	S/9231/PB07	275
	500 mL	Coated Glass Bottle	S/9231/PB08	275

NIST Certified Standard from SPEX

A full range of Mono & Multi-elemental standard and Calibration solution for ICP & ICP-MS
Discover them on page 258



Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.
Choose between Optima®, Trace Metal® & Primar Plus® grade.
Read more page 9

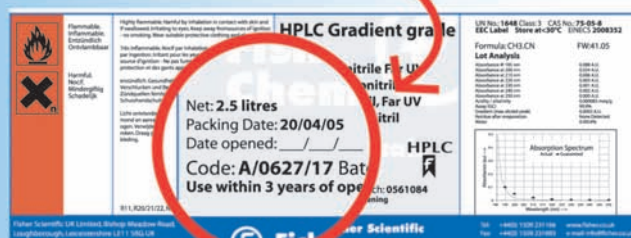


Fisher Chemical products takes care of the environment!

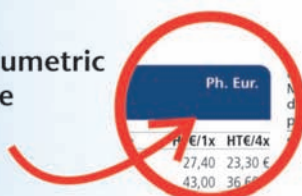
Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Use best before information on the label



Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia
Read more on page 191



Save money!
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Acrylamide

extra pure, unstabilized

SLR

Specified	packaging	product code
	250 g Plastic jar	A/0976/50
C_3H_5NO CAS: 79-06-1 MW: 71.08 Boiling point: 125°C Boiling pressure: 25 mmHg Melting point: 82 to 86°C Flash point: 138°C Assay (GC): >98.5%		
ADR/RID: 6.1/III UN: 2074 HS-Nr: 29241900 EINECS: 201-173-7 Risk: R45, R46, R20/21, R25, R36/38, R43, R48/23/24/25, R62 Safety: S53, S45		



Adipic acid

pure

packaging	product code
500 g Plastic jar	A/1000/53
$C_6H_{10}O_4$ CAS: 124-04-9 MW: 146.15 Boiling point: 265°C Boiling pressure: 100 mmHg Assay: >99%	
Melting point: 151 to 153°C Flash point: 196°C HS-Nr: 29171210 EINECS: 204-673-3 Risk: R36	



Adipoyl chloride

pure

packaging	product code
5 mL Glass bottle	A/1020/99
$C_6H_8Cl_2O_2$ CAS: 111-50-2 MW: 183.04 Density at 20°C: 1.25 Boiling point: 105 to 107°C Boiling pressure: 2 mmHg Flash point: 72°C	
ADR/RID: 8/III UN: 1760 HS-Nr: 38220000 EINECS: 203-876-4 Risk: R29, R34 Safety: S26, S36/37/39, S45	



L-Alanine

pure

packaging	product code
100 g Plastic jar	A/1162/48
$C_3H_7NO_2$ CAS: 56-41-7 MW: 89.09 Boiling pressure: 760 mmHg Assay: >99%	
Melting point: 314-316°C HS-Nr: 29224990 EINECS: 200-273-8 Safety: S24/25	
Guaranteed analysis Loss on drying <0.1% Residue after ignition <0.1% Specific rotation (α 20/D) ... +14° to +16°	
Iron (Fe) <10 ppm Lead (Pb) <10 ppm	

DL-Alanine

pure

packaging	product code
100 g Plastic jar	A/1160/48
$C_3H_7NO_2$ CAS: 302-72-7 MW: 89.09 Boiling pressure: 760 mmHg	
Melting point: 272-275°C HS-Nr: 29224990 EINECS: 206-126-4 Safety: S24/25	
Guaranteed analysis IR Analysis Conform	

Albumin, egg

extra pure

SLR

Specified	packaging	product code
	250 g Plastic jar	A/1280/50
CAS: 9006-50-2 HS-Nr: 38220000		

Alizarin C.I. 58000

pure, indicator grade

packaging	product code
10 g Glass packaging	A/1460/45
$C_{14}H_8O_4$ CAS: 72-48-0 MW: 240.22 Boiling point: 430°C Boiling pressure: 760 mmHg	
Melting point: 287 to 289°C HS-Nr: 38220000 EINECS: 200-782-5 Safety: S24/25	
Guaranteed analysis IR Analysis Conform pH 11.0-13.0 pink to violet.	

Alizarin fluorine blue

See 3-Aminomethylalizarin-N,N-diacetic acid, page 17



Alizarin red S, C.I.58005

pure

packaging	product code
25 g Glass packaging	A/1520/46
$C_{14}H_7NaO_7S$ CAS: 130-22-3 MW: 342.26	
HS-Nr: 38220000 EINECS: 204-981-8 Safety: S24/25	
Guaranteed analysis IR Analysis Conform	

Alkyd resin

pure, solution 70 % wt

packaging	product code
1 L Glass bottle	A/1552/15
Density at 20°C: 0.96 Flash point: 41°C ADR/RID: 3/III UN: 1866	
HS-Nr: 38220000 Risk: R10, R51/53, R65 Safety: S37, S43B, S61, S62	
Guaranteed analysis IR Analysis Conform	



Allylthiourea

pure, Determination of biological oxygen demand in water

packaging	product code
50 g Plastic jar	A/1566/47
$C_4H_8N_2S$ CAS: 109-57-9 MW: 116.19 Density at 20°C: 1.11 Boiling pressure: 760 mmHg Melting point: 70 to 78°C	
ADR/RID: 6.1/III UN: 2811 HS-Nr: 29309080 EINECS: 203-683-5 Risk: R25 Safety: S24/25, S45	



Almond oil

extra pure

SLR

Specified	packaging	product code
	100 mL Glass bottle	A/1565/05
HS-Nr: 38220000		

Alumina

See Aluminium oxide, basic Brockmann type II, page 14



Aluminium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8000/05
500 mL Plastic bottle	J/8000/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8206/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8205/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLAL22Y
250 mL Plastic bottle	SPPLAL22T
500 mL Plastic bottle	SPPLAL22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLAL12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLAL23Y
500 mL Plastic bottle	SPPLAL23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLAL13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Aluminium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLAL22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

pH Buffers

NIST Certified Standard
Solution & Concentrate
A full range to discover on page 45



Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Aluminium wire

for analysis, (0.76 mm diameter)

Certified AR



packaging	product code
100 g Plastic jar	A/1810/48

Al
CAS: 7429-90-5
MW: 26.97
Density at 20°C: 2.7
Boiling point: 2327°C
Boiling pressure: 760 mmHg

Melting point: 660°C
ADR/RID: 4.3/II
HS-Nr: 38220000
EINECS: 231-072-3
Safety: S24/25

Assay: >99.9%

Guaranteed analysis

Copper (Cu)	<50 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<40 ppm	Total silicon (Si)	<50 ppm
Manganese (Mn)	<20 ppm	Acids insoluble	<0.005%

Lot analysis on the label.

Aluminium foil

extra pure, approx. 0.1 mm thick

SLR

packaging	product code
250 g Leaf	A/1570/50
500 g Leaf	A/1570/53

Al
CAS: 7429-90-5
MW: 26.97
Density at 20°C: 2.7
Boiling point: 2327°C
Boiling pressure: 760 mmHg

Melting point: 660°C
ADR/RID: 4.3/II
HS-Nr: 38220000
EINECS: 231-072-3
Safety: S24/25

Aluminium thin sheet

extra pure, approx. 0.5 mm thick

SLR

packaging	product code
250 g Leaf	A/1690/50

Al
CAS: 7429-90-5
MW: 26.97
Density at 20°C: 2.7
Boiling point: 2327°C
Boiling pressure: 760 mmHg

Melting point: 660°C
ADR/RID: 4.3/II
HS-Nr: 76061191
EINECS: 231-072-3
Safety: S24/25

Aluminium powder

extra-pure, powder fine

SLR

packaging	product code
500 g Glass packaging	A/1605/53

Al
CAS: 7429-90-5
MW: 26.98
Boiling point: 2327°C
Boiling pressure: 760 mmHg
Melting point: 660°C

ADR/RID: 4.3/II
UN: 1396
HS-Nr: 38220000
EINECS: 231-072-3
Risk: R15, R17
Safety: S7/8, S43A



Aluminium powder

extra-pure, coarse (grease free)

SLR

packaging	product code
500 g Glass packaging	A/1610/53

Al
CAS: 7429-90-5
MW: 26.98
Boiling point: 2327°C
Boiling pressure: 760 mmHg
Melting point: 660°C

ADR/RID: 4.3/II
UN: 1396
HS-Nr: 38220000
EINECS: 231-072-3
Risk: R15, R17
Safety: S7/8, S43A



Guaranteed analysis

Melting Point tested 78-81°C

Aluminium ammonium sulfate dodecahydrate

for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/1880/53

NH₄Al(SO₄)₂·12H₂O
CAS: 7784-26-1
MW: 453.33
Density at 20°C: 1.64
Boiling point: 200°C

Boiling pressure: 760 mmHg
Melting point: 93.5°C
HS-Nr: 38220000
EINECS: 232-055-3
Safety: S24/25

Assay: 99 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	pH > 3	Molybdenum (Mo)	<0.5 ppm
Arsenic (As)	<0.5 ppm	Nickel (Ni)	<0.5 ppm
Barium (Ba)	<0.5 ppm	Nitrate (NO ₃)	<0.001%
Cadmium (Cd)	<0.5 ppm	Potassium (K)	<200 ppm
Calcium (Ca)	<20 ppm	Silver (Ag)	<0.5 ppm
Chromium (Cr)	<0.5 ppm	Sodium (Na)	<50 ppm
Cobalt (Co)	<0.5 ppm	Strontium (Sr)	<0.5 ppm
Copper (Cu)	<5 ppm	Titanium (Ti)	<0.5 ppm
Iron (Fe)	<5 ppm	Total chloride (Cl)	<0.002%
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Lithium (Li)	<0.5 ppm	Vanadium (V)	<0.5 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm
Manganese (Mn)	<0.5 ppm		

Lot analysis on the label.

Aluminium ammonium sulfate dodecahydrate

extra pure

SLR



packaging	product code
1 kg Plastic Jar	A/1840/60

NH₄Al(SO₄)₂·12H₂O
CAS: 7784-26-1
MW: 453.33
Density at 20°C: 1.64
Boiling point: 200°C

Boiling pressure: 760 mmHg
Melting point: 93.5°C
HS-Nr: 38220000
EINECS: 232-055-3
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<2000 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<100 ppm
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<20 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<50 ppm		

Aluminium chloride anhydrous

pure

packaging	product code
500 g Glass packaging	A/2000/53

AlCl₃
CAS: 7446-70-0
MW: 133.35
Density at 20°C: 2.44
Melting point: 194°C
ADR/RID: 8/II

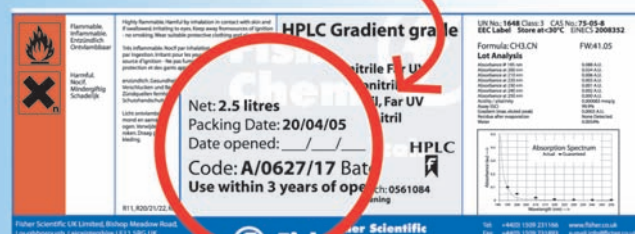
UN: 1726
HS-Nr: 28273200
EINECS: 231-208-1
Risk: R34
Safety: S28A, S45, S7/8

Assay: >98%

Guaranteed analysis

Iron (Fe)	<500 ppm	Sulfate (SO ₄)	<0.01%
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Use best before information on the label



Aluminium chloride hexahydrate
extra pure

SLR, Eur.Ph., BP, USP



packaging	product code
500 g Plastic jar	A/1960/53

AlCl₃·6H₂O
CAS: 7784-13-6
MW: 241.44
Density at 20°C: 2.39
ADR/RID: 8/II

UN: 1726
HS-Nr: 28273200
EINECS: 231-208-1
Risk: R34
Safety: S26, S36/37/39, S45



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Magnesium (Mg)	<100 ppm
Copper (Cu)	<50 ppm	Potassium (K)	<100 ppm
Iron (Fe)	<50 ppm	Sodium (Na)	<100 ppm
Lead (Pb)	<50 ppm	Zinc (Zn)	<100 ppm

Aluminium hydroxide dried
extra pure

SLR



packaging	product code
1 kg Plastic jar	A/2080/60

Al(OH)₃
CAS: 21645-51-2
MW: 78

HS-Nr: 28183000
EINECS: 244-492-7
Safety: S24/25

Guaranteed analysis

Iron (Fe)	<100 ppm	Total chloride (Cl)	<0.01%
Sodium (Na)	<3000 ppm		

Aluminium nitrate nonahydrate
for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/2202/53
1 kg Plastic jar	A/2202/60

Al(NO₃)₃·9H₂O
CAS: 7784-27-2
MW: 375.13
Melting point: 73°C
ADR/RID: 5.1/III

UN: 1438
HS-Nr: 28342980
EINECS: 236-751-8
Risk: R8, R22, R36
Safety: S17, S26



Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	pH > 2	Potassium (K)	<10 ppm
Ammonia (NH ₃)	<0.02 %	Sodium (Na)	<50 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<5 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Arsenic (As)	<1 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

Aluminium nitrate nonahydrate
extra pure

SLR



packaging	product code
500 g Plastic jar	A/2200/53
1 kg Plastic jar	A/2200/60
5 kg Plastic jar	A/2200/65

Al(NO₃)₃·9H₂O
CAS: 7784-27-2
MW: 375.13
Melting point: 73°C
ADR/RID: 5.1/III

UN: 1438
HS-Nr: 28342980
EINECS: 236-751-8
Risk: R8, R22, R36
Safety: S17, S26



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<50 ppm

Aluminium oxide, acid Brockmann type I
For chromatography, "Camag" 100-250 mesh

packaging	product code
500 g Plastic jar	A/2370/53

Al₂O₃
CAS: 1344-28-1
MW: 101.96
Density at 20°C: 3.97
Boiling point: 2980°C

Melting point: 2050°C
HS-Nr: 28182000
EINECS: 215-691-6
Safety: S24/25

Acid, pH (4.0- 5.0)

Aluminium oxide, basic Brockmann type I
For chromatography, "Camag" 100-250 mesh

packaging	product code
500 g Plastic jar	A/2372/53

Al₂O₃
CAS: 1344-28-1
MW: 101.96
Density at 20°C: 3.97
Boiling point: 2980°C

Melting point: 2050°C
HS-Nr: 28182000
EINECS: 215-691-6
Safety: S24/25

Alkaline, pH (9.0- 10.0)

Aluminium oxide, neutral Brockmann type I
For chromatography, "Camag" 100-250 mesh

packaging	product code
500 g Plastic jar	A/2374/53

Al₂O₃
CAS: 1344-28-1
MW: 101.96
Density at 20°C: 3.97
Boiling point: 2980°C

Melting point: 2050°C
HS-Nr: 28182000
EINECS: 215-691-6
Safety: S24/25

Neutral, pH (6.5-7.5)

Aluminium oxide, basic Brockmann type II
For chromatography, "Camag" 100-250 mesh

packaging	product code
500 g Plastic jar	A/2380/53

Al₂O₃
CAS: 1344-28-1
MW: 101.96
Density at 20°C: 3.97
Boiling point: 2980°C

Melting point: 2050°C
HS-Nr: 28182000
EINECS: 215-691-6
Safety: S24/25

Alkaline, pH (9-10)

Aluminium oxide
for analysis, calcined

Certified AR



packaging	product code
1 kg Plastic jar	A/2360/60

Al₂O₃
CAS: 1344-28-1
MW: 101.96
Density at 20°C: 3.97
Boiling point: 2980°C

Melting point: 2050°C
HS-Nr: 28182000
EINECS: 215-691-6
Safety: S24/25

Guaranteed analysis

Loss on ignition	<0.5%	Sulfate (SO ₄)	<0.005%
Iron (Fe)	<50 ppm	Total chloride (Cl)	<0.005%

Lot analysis on the label.

Aluminium oxide pure, Desiccating agent

packaging	product code
500 g Plastic jar	A/2320/53
Al ₂ O ₃ CAS: 1344-28-1 MW: 101.96 Density at 20°C: 3.97 Boiling point: 2980°C Particle size 3-6 mm.	Melting point: 2050°C HS-Nr: 28182000 EINECS: 215-691-6 Safety: S24/25

Aluminium oxide calcined extra pure

SLR

packaging	product code
1 kg Plastic jar	A/2280/60
Al ₂ O ₃ CAS: 1344-28-1 MW: 101.96 Density at 20°C: 3.97 Boiling point: 2980°C	Melting point: 2050°C HS-Nr: 28182000 EINECS: 215-691-6 Safety: S24/25

Aluminium potassium sulfate dodecahydrate extra pure

SLR

packaging	product code
1 kg Plastic jar	A/2400/60
3 kg Plastic jar	A/2400/63
AlK(SO ₄) ₂ · 12H ₂ O CAS: 7784-24-9 MW: 474.38 Melting point: 92°C	HS-Nr: 28333000 Risk: R22, R36/38 Safety: S26, S37/39



Assay: >99%			
Guaranteed analysis			
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.002%
Copper (Cu)	<20 ppm	Total nitrogen (N)	<1000 ppm
Iron (Fe)	<50 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm
Sodium (Na)	<100 ppm		

Aluminium silicate (hydrated)

See Kaolin light, page 136



Aluminium sulfate hexadecahydrate **NEW SPEC.**

Certified AR

packaging	product code
500 g Plastic jar	A/2600/53
5 kg Plastic drum	A/2600/65
Al ₂ (SO ₄) ₃ · 16H ₂ O CAS: 16828-11-8 MW: 630.39	HS-Nr: 28332200 EINECS: 233-135-0 Risk: R11

Assay: 98 to 102%

Guaranteed analysis			
pH (aqueous solution 5%)	pH > 2.2	Potassium (K)	<20 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.001 %
Iron (Fe)	<20 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Arsenic (As)	<5 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Aluminium sulfate hexadecahydrate **NEW SPEC.**

SLR

extra pure

packaging	product code
1 kg Plastic jar	A/2560/60
5 kg Plastic drum	A/2560/65
Al ₂ (SO ₄) ₃ · 16H ₂ O CAS: 16828-11-8 MW: 630.39	HS-Nr: 28332200 EINECS: 233-135-0 Risk: R11

Assay: >94%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Sodium (Na)	<1000 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<100 ppm	Total nitrogen (N)	<1000 ppm
Lead (Pb)	<100 ppm	Total phosphorus (P)	<500 ppm
Magnesium (Mg)	<100 ppm	Total silicon (Si)	<200 ppm
Potassium (K)	<200 ppm	Zinc (Zn)	<100 ppm

Aluminium sulfate hexadecahydrate Technical

packaging	product code
2 kg Plastic jar	A/2520/61
Al ₂ (SO ₄) ₃ · 16H ₂ O CAS: 16828-11-8 MW: 630.39	HS-Nr: 28332200 EINECS: 233-135-0 Risk: R11

Amberjet® 1200H, Cation exchange resin for Ion chromatography, Gel type (Hydrogen form , strongly acidic)

packaging	product code
500 g Plastic jar	IE/1011/53

HS-Nr: 39140000

Risk: R22

Styrene-DVB Matrix structure.

A uniform strongly acidic cation exchanger designed for use in general demineralisation systems.

Amberlite® IR-120, Cation exchange resin for Ion chromatography, Gel type (Hydrogen form , strongly acidic)

packaging	product code
100 g Plastic jar	IE/1015/48
500 g Plastic jar	IE/1015/53

HS-Nr: 38220000

Risk: R22

Styrene-DVB Matrix structure.

Premium quality conventional strongly acidic cation exchange resin with 8% DVB by weight, amber in colour and contains a high perfect bead content. The quality of this resin is such that it can be used in standard operations as well as where there is a need for a premium grade gel cation exchange resin.

Amberlite® IR-120, Cation exchange resin for Ion chromatography, Gel type (Sodium form , strongly acidic)

packaging	product code
500 g Plastic jar	IE/1020/53

HS-Nr: 38220000

Risk: R22

Styrene-DVB Matrix structure.

Premium quality conventional strongly acidic cation exchange resin with 8% DVB by weight, amber in colour and contains a high perfect bead content. The quality of this resin is such that it can be used in standard operations as well as where there is a need for a premium grade gel cation exchange resin.

Amberlite® 200, Cation exchange resin for Ion chromatography, Macroreticular type (Sodium form, strongly acidic)

packaging	product code
500 g Plastic jar	IE/1040/53

HS-Nr: 38220000
Safety: S24/25

Styrene-DVB matrix structure.
Excellent physical stability and resistance to oxidation. Contains approximately 20%DVB by weight, and can be expected to provide at least three times greater resistance to oxidation than conventional gel type cation exchange resin.

Amberlite® IRC-50, Cation exchange resin for Ion chromatography, Macroreticular type (Hydrogen form, weakly acidic)

packaging	product code
100 g Plastic jar	IE/1045/48

HS-Nr: 38220000
Safety: S24/25

Guaranteed analysis

Iron (Fe) <50 ppm Lead (Pb) <25 ppm

Methacrylic acid- DVB Matrix structure.
Has a pK value of 6.1 and will selectively adsorb organic bases such as basic antibiotics, alkaloids, peptides, amino acids and metals present in an alkaline solution.

Amberlite® IRA-402, Anion exchange resin for Ion chromatography, Gel type (Chloride form, strongly basic)

packaging	product code
500 g Plastic jar	IE/1050/53

HS-Nr: 38220000
Risk: R22

Styrene-DVB Matrix structure.
Combined with a strong acid cation exchanger it reduces both strong and weak acid concentrations to extremely low levels. Its main use is water demineralisation.

Amberlite® MB-1 (Mixed resin) for Ion chromatography

packaging	product code
500 g Plastic jar	IE/1505/53

HS-Nr: 38220000
Safety: S24/25

Can be used to remove trace ionic impurities from acrylamide before polymerisation.

Amberlite® MB-6113 (Mixed resin) for Ion chromatography

packaging	product code
500 g Plastic Jar	IE/1502/53

HS-Nr: 38220000

Amberlyst® 15, Amberlyst exchange resin for Ion chromatography, Macroreticular type (cation, strongly acidic), dry

packaging	product code
500 g Plastic jar	IE/2500/53

HS-Nr: 38220000
Risk: R22

Amberlyst 15 Matrix structure

4-Aminophenazone for analysis

Certified AR



packaging	product code
25 g Plastic jar	A/3042/46

C₁₁H₁₃N₃O
CAS: 83-07-8

MW: 203.25

Density at 20°C: 0.8

Melting point: 105.5 to 110°C

Assay: >99%

HS-Nr: 29331190

EINECS: 201-452-3

Risk: R22, R36/37/38

Safety: S26, S36/37/39

Xn



Guaranteed analysis

Loss on drying <0.5% IR Analysis Conform

Residue after ignition <0.1%

Lot analysis on the label.

4-Aminophenazone extra pure

SLR



packaging	product code
25 g Plastic jar	A/3040/46

C₁₁H₁₃N₃O
CAS: 83-07-8

MW: 203.25

Density at 20°C: 0.8

Melting point: 105.5 to 110°C

Assay: >98%

HS-Nr: 29331190

EINECS: 201-452-3

Risk: R22, R36/37/38

Safety: S26, S36/37/39

Xn



Aminobenzene See Aniline, page 31



4-Aminobenzenesulfonamide

See Sulfanilamide, page 273



4-Aminobenzenesulfonic acid

See Sulfanilic acid, page 273



4-Aminobenzoic acid extra pure

SLR



packaging	product code
100 g Plastic jar	A/2840/48

C₇H₇NO₂
CAS: 150-13-0

MW: 137.14

Melting point: 186 to 189°C

Assay: >99%

HS-Nr: 38220000

EINECS: 205-753-0

Risk: R36/37/38

Safety: S26, S37/39

Xi



3-Amino-7-dimethylamino-2-methylphenazine
hydrochloride

See Neutral red C.I 50040, page 171



4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one

See 4-Aminophenazone, page 16



2-Aminoethanesulfonic acid See Taurine, page 280



Amidosulfonic acid See Sulfamic acid, page 273



2-Aminoethanol See Ethanolamine, page 98



3-Aminoethylbenzene

See 2-Phenylethylamine, page 195



L-2-Aminosuccinamic acid

See L-Asparagine, page 34



2-Amino-2-(hydroxymethyl)-1,3-propanediol

See Tris(hydroxymethyl) methylamine, 'Tris buffer', page 297



L-2-Amino-3-(4-imidazolyl)propionic acid

See L-Histidine, page 116



L-Aminosuccinic acid

See L-Aspartic acid, page 35



3-Aminomethylalazarin-N,N-diacetic acid pure, indicator grade

packaging	product code
1 g Glass packaging	A/2930/43
$C_{19}H_{15}NO_8 \cdot 2H_2O$	HS-Nr: 29225000
CAS: 3952-78-1	EINECS: 223-544-2
MW: 421.35	Safety: S24/25
Melting point: 190 °C	

Guaranteed analysis

IR Analysis Conform

Conforming to the IR spectrum of reference.

(2S,3S)-2-Amino-3-methylpentanoic acid

See L-iso-Leucine, page 146



2-Amino-2-methyl-propan-1-ol

extra pure

SLR

packaging	product code
500 mL Glass bottle	A/2960/08

$C_4H_{11}NO$
CAS: 124-68-5
MW: 89.14
Density at 20°C: 0.93
Boiling point: 165°C
Boiling pressure: 760 mmHg
Melting point: 31 to 32°C

Flash point: 67°C
ADR/RID: /III
HS-Nr: 29221980
EINECS: 204-709-8
Risk: R36/38, R52/53
Safety: S61



Assay (GC): >93%

Guaranteed analysis

Residue after ignition <0.005%

1-Amino-2-naphthol-4-sulfonic acid

extra pure

SLR

packaging	product code
25 g Plastic jar	A/3002/46

$C_{10}H_9NO_4S$
CAS: 116-63-2
MW: 239.25
Boiling pressure: 760 mmHg
Melting point: 295 °C

HS-Nr: 38220000
EINECS: 204-147-3
Risk: R36/37/38
Safety: S24/25



Guaranteed analysis

IR Analysis Conform

3-Aminophthalhydrazide (Luminol)

extra pure

SLR

packaging	product code
5 g Glass packaging	A/3150/44

$C_8H_7N_3O_2$
CAS: 521-31-3
MW: 177.16
Melting point: 319 to 320°C

HS-Nr: 29280000
EINECS: 208-309-4
Risk: R22, R36/37/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Ammonia solution 20% for ultra trace analysis

NEW SPEC.

OPTIMA



packaging	product code
250 mL HDPE bottle	A/3365/07
500 mL HDPE bottle	A/3365/08
1 L HDPE bottle	A/3365/15

$NH_3 \cdot H_2O$
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.91
ADR/RID: 8/III

UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61



Assay (NH₃): 20%

Guaranteed analysis

Aluminium (Al) <20 ppt	Molybdenum (Mo) <10 ppt
Antimony (Sb) <10 ppt	Neodymium (Nd) <1 ppt
Arsenic (As) <10 ppt	Nickel (Ni) <10 ppt
Barium (Ba) <10 ppt	Niobium (Nb) <10 ppt
Beryllium (Be) <10 ppt	Potassium (K) <20 ppt
Bismuth (Bi) <10 ppt	Praseodymium (Pr) <10 ppt
Cadmium (Cd) <10 ppt	Rhodium (Rh) <10 ppt
Calcium (Ca) <20 ppt	Rubidium (Rb) <10 ppt
Cerium (Ce) <10 ppt	Samarium (Sm) <10 ppt
Chromium (Cr) <10 ppt	Scandium (Sc) <10 ppt
Cobalt (Co) <10 ppt	Silver (Ag) <10 ppt
Copper (Cu) <20 ppt	Sodium (Na) <20 ppt
Dysprosium (Dy) <10 ppt	Strontium (Sr) <10 ppt
Erbium (Er) <10 ppt	Tellurium (Te) <10 ppt
Europium (Eu) <10 ppt	Terbium (Tb) <10 ppt
Gadolinium (Gd) <10 ppt	Thallium (Tl) <10 ppt
Gallium (Ga) <10 ppt	Thorium (Th) <10 ppt
Germanium (Ge) <10 ppt	Thulium (Tm) <10 ppt
Gold (Au) <10 ppt	Tin (Sn) <10 ppt
Holmium (Ho) <10 ppt	Titanium (Ti) <10 ppt
Indium (In) <10 ppt	Tungsten (W) <10 ppt
Iron (Fe) <20 ppt	Uranium (U) <10 ppt
Lanthanum (La) <10 ppt	Vanadium (V) <10 ppt
Lead (Pb) <10 ppt	Ytterbium (Yb) <10 ppt
Lithium (Li) <10 ppt	Yttrium (Y) <10 ppt
Lutetium (Lu) <10 ppt	Zinc (Zn) <10 ppt
Magnesium (Mg) <20 ppt	Zirconium (Zr) <10 ppt
Manganese (Mn) <10 ppt	

Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.

Choose between Optima®,
Trace Metal® & Primar Plus® grade.

Read more page 9



Ammonia solution 20%
for trace metal analysis

NEW

Trace metal grade



packaging	product code
500 mL HDPE bottle	A/3362/08

NH₄OH
CAS: 1336-21-6
MW: 35.05
Density at 20°C: 0.92
ADR/RID: 8/III

UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34
Safety: S26, S36/37/39, S45

Assay: 20 to 22%

Guaranteed analysis

Colour	<10 APHA	Nickel (Ni)	<0.2 ppb
Aluminium (Al)	<0.5 ppb	Niobium (Nb)	<0.1 ppb
Antimony (Sb)	<0.1 ppb	Palladium (Pd)	<1 ppb
Arsenic (As)	<0.1 ppb	Platinum (Pt)	<1 ppb
Barium (Ba)	<0.1 ppb	Potassium (K)	<0.2 ppb
Beryllium (Be)	<0.1 ppb	Praseodymium (Pr)	<0.1 ppb
Bismuth (Bi)	<0.1 ppb	Rhenium (Re)	<1 ppb
Cadmium (Cd)	<0.1 ppb	Rhodium (Rh)	<0.1 ppb
Calcium (Ca)	<1 ppb	Rubidium (Rb)	<0.1 ppb
Cerium (Ce)	<0.1 ppb	Ruthenium (Ru)	<1 ppb
Cesium (Cs)	<0.1 ppb	Samarium (Sm)	<0.1 ppb
Chromium (Cr)	<0.1 ppb	Scandium (Sc)	<0.1 ppb
Cobalt (Co)	<0.1 ppb	Selenium (Se)	<0.1 ppb
Copper (Cu)	<0.5 ppb	Silver (Ag)	<0.1 ppb
Dysprosium (Dy)	<0.1 ppb	Sodium (Na)	<1 ppb
Erbium (Er)	<0.1 ppb	Strontium (Sr)	<0.1 ppb
Europium (Eu)	<0.1 ppb	Sulfate (SO ₄)	<0.1 ppm
Gadolinium (Gd)	<0.1 ppb	Tellurium (Te)	<0.1 ppb
Gallium (Ga)	<0.1 ppb	Terbium (Tb)	<0.1 ppb
Germanium (Ge)	<0.1 ppb	Thallium (Tl)	<0.1 ppb
Gold (Au)	<0.1 ppb	Thorium (Th)	<0.1 ppb
Hafnium (Hf)	<1 ppb	Thulium (Tm)	<0.1 ppb
Holmium (Ho)	<0.1 ppb	Tin (Sn)	<0.1 ppb
Indium (In)	<0.1 ppb	Titanium (Ti)	<0.1 ppb
Iron (Fe)	<0.5 ppb	Total chloride (Cl)	<0.5 ppm
Lanthanum (La)	<0.1 ppb	Total phosphorus (P)	<0.5 ppm
Lead (Pb)	<0.1 ppb	Tungsten (W)	<0.1 ppb
Lithium (Li)	<0.1 ppb	Uranium (U)	<0.1 ppb
Lutetium (Lu)	<0.1 ppb	Vanadium (V)	<0.1 ppb
Magnesium (Mg)	<0.2 ppb	Ytterbium (Yb)	<0.1 ppb
Manganese (Mn)	<0.2 ppb	Yttrium (Y)	<0.1 ppb
Mercury (Hg)	<1 ppb	Zinc (Zn)	<0.5 ppb
Molybdenum (Mo)	<0.1 ppb	Zirconium (Zr)	<0.1 ppb
Neodymium (Nd)	<0.1 ppb		

Ammonia solution 20% d=0.92
for analysis

Certified AR



packaging	product code
1 L Glass bottle	A/3367/15
2.5 L Glass bottle	A/3367/17

NH₃·H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.917 to 0.923
ADR/RID: 8/III

UN: 2672
HS-Nr: 38220000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61

Assay: 20 to 22%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<1 ppm
Substances		Sodium (Na)	<2 ppm
reducing KMnO ₄	<0.001%	Total chloride (Cl)	<0.00005 %
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<0.5 ppm
Carbonate (Na ₂ CO ₃)	<0.002 %	Total silicon (Si)	<1 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<1 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Lead (Pb)	<0.05 ppm	Pyridine and homologues (C ₆ H ₅ N)	<2 ppm
Magnesium (Mg)	<0.1 ppm		

Lot analysis on the label.

**Fisher Chemical
packaging**A convenient and complete range
for a cleaner and safer world!**Ammonia Solution 20% d=0.92**
extra pure

SLR



packaging	product code
1 L Glass bottle	A/3366/15
5 L Plastic bottle	A/3366/21

NH₃·H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.91 to 0.93
ADR/RID: 8/III

UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61

Assay: 20 to 22%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Potassium (K)	<10 ppm
Carbonate (Na ₂ CO ₃)	<0.01%	Sodium (Na)	<20 ppm
Copper (Cu)	<1 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<1 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<1 ppm	Zinc (Zn)	<2 ppm

Ammonia solution 25%, d=0.91
for analysis

Certified AR



packaging	product code
1 L Coated Glass Bottle	A/3360/PB15
2.5 L Coated Glass Bottle	A/3360/PB17

NH₃·H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.88
ADR/RID: 8/III

UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61

Assay: 20 to 30%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<1 ppm
Substances		Sodium (Na)	<5 ppm
reducing KMnO ₄	<0.001%	Total chloride (Cl)	<0.00005 %
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<0.5 ppm
Carbonate (Na ₂ CO ₃)	<0.002 %	Total silicon (Si)	<1 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<1 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Lead (Pb)	<0.05 ppm	Pyridine and homologues (C ₆ H ₅ N)	<2 ppm
Magnesium (Mg)	<0.1 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

Ammonia is equivalent to a strength of 13.4M (13.4N).

Ammonia solution 25% d=0.91
extra pure

SLR



packaging	product code
2.5 L Coated Glass Bottle	A/3320/PB17

NH₃·H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.88
ADR/RID: 8/III

UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61

Assay: 20 to 30%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<20 ppm
Carbonate (Na ₂ CO ₃)	<0.01%	Total chloride (Cl)	<0.001%
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<2 ppm		

Ammonia is equivalent to a strength of 13.4M (13.4N).

Ammonia solution 35% d=0.88 for HPLC

Certified



packaging	product code
100 mL Coated Glass Bottle	A/3295/PB05

NH₃.H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.88
ADR/RID: 8/III
UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61



Assay: 32 to 36%

Guaranteed analysis

Iron (Fe) <0.2 ppm Lead (Pb) <0.05 ppm

Ammonia is equivalent to a strength of 18.1M (18.1N).

Lot analysis on the label.

Filtered to 0.2 µm.

Ammonia solution 35% d=0.88 for trace metal analysis

Primar



packaging	product code
500 mL Coated Glass Bottle	A/3290/PB08
1 L Coated Glass Bottle	A/3290/PB15

NH₃.H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.88
ADR/RID: 8/III
UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61



Guaranteed analysis

Substances
reducing dichromate <0.0002%
Aluminium (Al) <0.05 ppm
Arsenic (As) <0.005 ppm
Barium (Ba) <0.01 ppm
Cadmium (Cd) <0.001 ppm
Calcium (Ca) <0.2 ppm
Carbonate (Na₂CO₃) <0.001%
Chromium (Cr) <0.005 ppm
Cobalt (Co) <0.005 ppm
Copper (Cu) <0.005 ppm
Iron (Fe) <0.05 ppm
Lead (Pb) <0.002 ppm
Lithium (Li) <0.005 ppm
Magnesium (Mg) <0.05 ppm
Manganese (Mn) <0.005 ppm
Mercury (Hg) <0.01 ppm
Molybdenum (Mo) <0.005 ppm
Nickel (Ni) <0.005 ppm
Potassium (K) <0.05 ppm
Silver (Ag) <0.05 ppm
Strontium (Sr) <0.005 ppm
Tin (Sn) <0.005 ppm
Titanium (Ti) <0.005 ppm
Total chloride (Cl) <0.00001%
Total phosphorus (P) <0.05 ppm
Total sulphur (S) <0.1 ppm
Vanadium (V) <0.005 ppm
Zinc (Zn) <0.01 ppm
Other IMP. <1 ppm

Ammonia is equivalent to a strength of 18.1M (18.1N).

Ammonia solution 35% d=0.88 for AAS

packaging	product code
2.5 L Coated Glass Bottle	A/3285/PB17

NH₃.H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.87 to 0.89
ADR/RID: 8/III
UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61



Guaranteed analysis

Cadmium (Cd) <0.02 ppm Magnesium (Mg) <0.02 ppm
Calcium (Ca) <0.5 ppm Manganese (Mn) <0.01 ppm
Cobalt (Co) <0.02 ppm Nickel (Ni) <0.01 ppm
Copper (Cu) <0.05 ppm Potassium (K) <0.2 ppm
Iron (Fe) <0.2 ppm Sodium (Na) <0.5 ppm
Lead (Pb) <0.05 ppm Zinc (Zn) <0.1 ppm

Ammonia solution 35% d=0.88 for electronic use (MOS)

packaging	product code
2.5 L Coated Glass Bottle	A/3222/PB17
5 L Plastic bottle	A/3222/21

NH₃.H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.88 to 0.89
ADR/RID: 8/III
UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61



Assay: 32 to 36%

Guaranteed analysis

Colour <10 APHA Magnesium (Mg) <0.1 ppm
Substances
reducing KMnO₄ <0.001% Manganese (Mn) <0.01 ppm
Aluminium (Al) <0.1 ppm Molybdenum (Mo) <0.01 ppm
Barium (Ba) <0.01 ppm Nickel (Ni) <0.02 ppm
Cadmium (Cd) <0.01 ppm Potassium (K) <1 ppm
Calcium (Ca) <1 ppm Sodium (Na) <5 ppm
Carbonate (Na₂CO₃) <0.002% Strontium (Sr) <0.01 ppm
Chromium (Cr) <0.02 ppm Titanium (Ti) <0.01 ppm
Cobalt (Co) <0.01 ppm Total chloride (Cl) <0.00005%
Copper (Cu) <0.05 ppm Total phosphorus (P) <0.5 ppm
Iron (Fe) <0.2 ppm Total sulphur (S) <1 ppm
Lead (Pb) <0.05 ppm Vanadium (V) <0.01 ppm
Lithium (Li) <0.01 ppm Zinc (Zn) <0.2 ppm
Pyridine and homologues (C₆H₅N)₂ ppm

Ammonia solution 0.25M for HPLC

Certified



packaging	product code
500 mL Coated Glass Bottle	J/0100/PB08

HS-Nr: 28141000

Guaranteed analysis

Molarity 0.24 to 0.26 M

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Drift in the baseline <40 mAU. Gradient (max eluted peak) <0.005 A.U.

Ammonia solution 35%, d=0.88 for analysis

Certified AR



packaging	product code
1 L Coated Glass Bottle	A/3280/PB15
2.5 L Coated Glass Bottle	A/3280/PB17
5 L Plastic bottle	A/3280/21
25 L Metal drum	A/3280/25

NH₃.H₂O
CAS: 1336-21-6
MW: 35.04
Density at 20°C: 0.88 to 0.89
ADR/RID: 8/III
UN: 2672
HS-Nr: 28142000
EINECS: 215-647-6
Risk: R34, R50
Safety: S26, S36/37/39, S45, S61



Guaranteed analysis

Colour <10 APHA Potassium (K) <1 ppm
Substances
reducing KMnO₄ <0.001% Sodium (Na) <5 ppm
Calcium (Ca) <1 ppm Total chloride (Cl) <0.00005 %
Carbonate (Na₂CO₃) <0.002% Total phosphorus (P) <0.5 ppm
Copper (Cu) <0.05 ppm Total silicon (Si) <1 ppm
Iron (Fe) <0.2 ppm Total sulphur (S) <1 ppm
Lead (Pb) <0.05 ppm Zinc (Zn) <0.2 ppm
Magnesium (Mg) <0.1 ppm Pyridine and homologues (C₆H₅N) <2 ppm

Typical analysis

Aluminium (Al) <0.1 ppm Manganese (Mn) <0.01 ppm
Barium (Ba) <0.01 ppm Molybdenum (Mo) <0.01 ppm
Cadmium (Cd) <0.01 ppm Nickel (Ni) <0.02 ppm
Chromium (Cr) <0.02 ppm Strontium (Sr) <0.01 ppm
Cobalt (Co) <0.01 ppm Titanium (Ti) <0.01 ppm
Lithium (Li) <0.01 ppm Vanadium (V) <0.01 ppm

Lot analysis on the label.

Ammonia is equivalent to a strength of 18.1M (18.1N).

see page 279 for suitable Tap & accessories.

Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia

Read more on page 266



Ammonia solution 35% d=0.88
extra pure

SLR



packaging	product code
1 L Coated Glass Bottle	A/3240/PB15
2.5 L Coated Glass Bottle	A/3240/PB17

NH₃·H₂O
 CAS: 1336-21-6
 MW: 35.04
 Density at 20°C: 0.88 to 0.89
 ADR/RID: 8/III
 UN: 2672
 HS-Nr: 28142000
 EINECS: 215-647-6
 Risk: R34, R50
 Safety: S26, S36/37/39, S45, S61



Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<20 ppm
Carbonate (Na ₂ CO ₃)	<0.01%	Total chloride (Cl)	<0.001%
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<2 ppm		

Ammonia is equivalent to a strength of 18.1M (18.1N).

Ammonia-Nitrogen standard 1000 ppm
For Ion chromatography in H₂O, NIST certified

packaging	product code
100 mL Plastic bottle	SPASNH3N92Y

CAS: 12125-02-9
 Density at 20°C: 1

Manufactured to a tolerance of ±0.3%.

Ammonium standard
for Ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4542/05

HS-Nr: 38220000

Guaranteed analysis

Value between 0.95 to 1.05

Manufactured to a tolerance of ± 1%.

Ammonium acetate
for HPLC

Certified



packaging	product code
250 g Plastic Jar	A/3446/50

C₂H₇NO₂
 CAS: 631-61-8
 MW: 77.08
 Density at 20°C: 1.07
 Melting point: 110 to 112°C
 Flash point: 136°C
 HS-Nr: 29152900
 EINECS: 211-162-9
 Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	6.5 to 7.5	Lead (Pb)	<1 ppm
Iron (Fe)	<1 ppm	Total chloride (Cl)	<0.0005%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.02 A.U.

Lot analysis on the label.
 Filtered to 0.2 µm.

Ammonium acetate
HPLC for electrochemical detection

Certified



packaging	product code
250 g Plastic jar	A/3450/50

C₂H₇NO₂
 CAS: 631-61-8
 MW: 77.08
 Density at 20°C: 1.07
 Melting point: 110 to 112°C
 Flash point: 136°C
 HS-Nr: 29152900
 EINECS: 211-162-9
 Safety: S24/25

Assay: >97%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<1 ppm
pH (aqueous solution 5%)	6.5 to 7.5	Total chloride (Cl)	<0.0005%
Iron (Fe)	<1 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.02 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Ammonium acetate
For soil analysis

packaging	product code
500 g Plastic Jar	A/3445/53
1 kg Plastic Jar	A/3445/60
5 kg Plastic Keg	A/3445/65

C₂H₇NO₂
 CAS: 631-61-8
 MW: 77.08
 Density at 20°C: 1.07
 Melting point: 110 to 112°C
 Flash point: 136°C
 HS-Nr: 29152900
 EINECS: 211-162-9
 Safety: S24/25

Assay: >97%

Guaranteed analysis

pH (aqueous solution 5%)	6.5 to 7.5	Magnesium (Mg)	<5 ppm
Residue after ignition	<0.01%	Nitrate (NO ₃)	<0.001%
Aluminium (Al)	<5 ppm	Phosphate (PO ₄)	<1 ppm
Calcium (Ca)	<10 ppm	Potassium (K)	<2 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.0005%
Iron (Fe)	<1 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<1 ppm		

Ammonium acetate
for analysis

Certified AR



packaging	product code
250 g Plastic Jar	A/3440/50
500 g Plastic Jar	A/3440/53
1 kg Plastic Jar	A/3440/60
5 kg Plastic Keg	A/3440/65

C₂H₇NO₂
 CAS: 631-61-8
 MW: 77.08
 Density at 20°C: 1.07
 Melting point: 110 to 112°C
 Flash point: 136°C
 HS-Nr: 29152900
 EINECS: 211-162-9
 Safety: S24/25

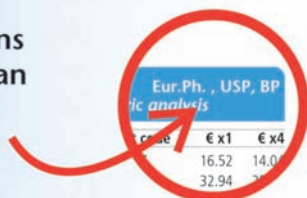
Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	6.5 to 7.5	Potassium (K)	<10 ppm
Calcium (Ca)	<2 ppm	Sodium (Na)	<5 ppm
Copper (Cu)	<1 ppm	Total chloride (Cl)	<0.0005 %
Iron (Fe)	<1 ppm	Total phosphorus (P)	<2 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<5 ppm
Magnesium (Mg)	<1 ppm	Total sulphur (S)	<10 ppm
Nitrate (NO ₃)	<0.001 %	Zinc (Zn)	<1 ppm

The ready to use solutions
 comply with the European
 Pharmacopeia

Discover them
 at page 266



Typical analysis

Aluminium (Al)	<1 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Ammonium acetate extra pure, crystals

SLR

packaging	product code
500 g Plastic Jar	A/3400/53
1 kg Plastic Jar	A/3400/60
5 kg Plastic Keg	A/3400/65

C₂H₇NO₂
CAS: 631-61-8
MW: 77.08
Density at 20°C: 1.07
Melting point: 110 to 112°C
Flash point: 136°C
HS-Nr: 29152900
EINECS: 211-162-9
Safety: S24/25

Assay: >97%

Guaranteed analysis

pH (aqueous solution 5%)	6.5 to 7.5	Sodium (Na)	<20 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<5 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<50 ppm		

Ammonium acetate solution 0.25M HPLC for gradient analysis

Certified

packaging	product code
500 mL Coated Glass Bottle	J/0200/PB08

HS-Nr: 29152900

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Drift in the baseline <40 mAU. Gradient (max eluted peak) <0.005 A.U.

Manufactured to a tolerance of ±0.02M

Conditions:

Column: C18 Reverse Phase

Flow Rate: 3ml/min

Wavelength: 254nm

Solvent A: Water + 10%Buffer

Solvent B: Acetonitrile + 10% Buffer

Gradient: 10 min. At 5% solvent B followed by a linear gradient to 95% solvent B over 15min.

Ammonium bromide for analysis

Certified AR

packaging	product code
500 g Plastic jar	A/3560/53

NH₄Br
CAS: 12124-97-9
MW: 97.95
Density at 20°C: 2.42
Boiling point: 235°C
Boiling pressure: 760 mmHg
Melting point: 452°C
HS-Nr: 28275900
EINECS: 235-183-8
Risk: R36
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.1%	Magnesium (Mg)	<5 ppm
pH (aqueous solution 5%)	4.8 to 6	Potassium (K)	<50 ppm
Bromate (BrO ₃)	<0.001 %	Sodium (Na)	<20 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.2 %
Copper (Cu)	<1 ppm	Total phosphorus (P)	<10 ppm
Iodide	<0.005 %	Total silicon (Si)	<10 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Ammonium bromide extra pure

SLR

packaging	product code
500 g Plastic jar	A/3520/53

NH₄Br
CAS: 12124-97-9
MW: 97.95
Density at 20°C: 2.42
Boiling point: 235°C
Boiling pressure: 760 mmHg
Melting point: 452°C
HS-Nr: 28275900
EINECS: 235-183-8
Risk: R36
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<20 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.5%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<50 ppm

Ammonium carbonate for HPLC

Certified

packaging	product code
250 g Plastic jar	A/3686/50

NH₄HCO₃+
NH₂.COO.NH₄
CAS: 506-87-6
HS-Nr: 28361000
EINECS: 233-786-0
Safety: S24/25

Assay: >31%

Guaranteed analysis

Iron (Fe)	<1 ppm	Total chloride (Cl)	<0.0001%
Lead (Pb)	<1 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.02 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Ammonium carbonate for analysis, powder

Certified AR

packaging	product code
500 g Plastic jar	A/3680/53
1 kg Plastic jar	A/3680/60

NH₄HCO₃
+NH₂.COO.NH₄
CAS: 506-87-6
HS-Nr: 28361000
EINECS: 233-786-0
Safety: S24/25

Assay: >31%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Sodium (Na)	<5 ppm
Copper (Cu)	<0.5 ppm	Total chloride (Cl)	<0.00005 %
Iron (Fe)	<10 ppm	Total phosphorus (P)	<5 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<10 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<10 ppm
Potassium (K)	<5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Ammonium carbonate
extra pure, powder

SLR



packaging	product code
1 kg Plastic jar	A/3640/60
5 kg Plastic drum	A/3640/65

$\text{NH}_4\text{HCO}_3 +$
 $\text{NH}_2\text{COO.NH}_4$

HS-Nr: 28361000
EINECS: 233-786-0
Safety: S24/25

CAS: 506-87-6

Assay: >30%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S)	<50 ppm
Potassium (K)	<20 ppm	Zinc (Zn)	<50 ppm

Ammonium cerium(IV) nitrate
for analysis

Certified AR



packaging	product code
100 g Plastic jar	A/3730/48
250 g Plastic jar	A/3730/50

$(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6$
CAS: 16774-21-3
MW: 548.23
Density at 20°C: 2.2
Melting point: 107 to 108°C
ADR/RID: 5.1/II

UN: 3087
HS-Nr: 28461000
EINECS: 240-827-6
Risk: R8, R22, R36/37/38, R41
Safety: S17, S26, S36/37/39



Assay: >99%

Guaranteed analysis

Loss on drying	<3%	Potassium (K)	<50 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Cobalt (Co)	<1 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<10 ppm	Titanium (Ti)	<1 ppm
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.001%
Lead (Pb)	<10 ppm	Total phosphorus (P)	<50 ppm
Lithium (Li)	<1 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<50 ppm
Manganese (Mn)	<1 ppm	Vanadium (V)	<1 ppm
Molybdenum (Mo)	<1 ppm	Zinc (Zn)	<20 ppm
Nickel (Ni)	<0.005%	Acids insoluble	<0.005%

Lot analysis on the label.

Ammonium cerium(IV) nitrate
extra pure

SLR



packaging	product code
100 g Plastic jar	A/3720/48
250 g Plastic jar	A/3720/50

$(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6$
CAS: 16774-21-3
MW: 548.23
Density at 20°C: 2.2
Melting point: 107 to 108°C
ADR/RID: 5.1/II

UN: 3087
HS-Nr: 28461000
EINECS: 240-827-6
Risk: R8, R22, R36/37/38, R41
Safety: S17, S26, S36/37/39

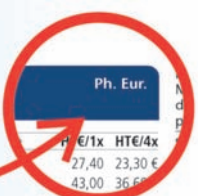


Assay: >98%

Guaranteed analysis

Loss on drying	<5%	Sodium (Na)	<500 ppm
Copper (Cu)	<100 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<100 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<100 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<200 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<200 ppm

Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191

Ammonium cerium(IV) sulfate
for analysis, low in rare earths

Certified AR



packaging	product code
100 g Plastic jar	A/3771/48

$(\text{NH}_4)_4\text{Ce}(\text{SO}_4)_4 \cdot 2\text{H}_2\text{O}$
CAS: 10378-47-9
MW: 632.56
Melting point: 130°C

HS-Nr: 28461000
EINECS: 231-567-4
Safety: S24/25

Assay: >99%

Guaranteed analysis

Cadmium (Cd)	<1 ppm	Potassium (K)	<50 ppm
Chromium (Cr)	<1 ppm	Silver (Ag)	<1 ppm
Cobalt (Co)	<1 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<10 ppm	Titanium (Ti)	<1 ppm
Iron (Fe)	<50 ppm	Total chloride (Cl)	<0.001%
Lead (Pb)	<20 ppm	Total phosphorus (P)	<50 ppm
Lithium (Li)	<1 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<50 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm	Zinc (Zn)	<20 ppm
Molybdenum (Mo)	<1 ppm	Other rare earths	<2%
Nickel (Ni)	<0.005%		

Lot analysis on the label.

Ammonium cerium(IV) sulfate
extra pure

SLR



packaging	product code
100 g Plastic jar	A/3760/48

$(\text{NH}_4)_4\text{Ce}(\text{SO}_4)_4 \cdot 2\text{H}_2\text{O}$
CAS: 10378-47-9
MW: 632.56
Melting point: 130°C

HS-Nr: 28461000
EINECS: 231-567-4
Safety: S24/25

Assay: 90 to 105%

Guaranteed analysis

Copper (Cu)	<500 ppm	Sodium (Na)	<500 ppm
Iron (Fe)	<500 ppm	Total chloride (Cl)	<0.05%
Lead (Pb)	<500 ppm	Total phosphorus (P)	<500 ppm
Magnesium (Mg)	<500 ppm	Total silicon (Si)	<500 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<500 ppm

Ammonium chloride
for analysis

Certified AR, Ph.Eur., BP



packaging	product code
500 g Plastic jar	A/3920/53
1 kg Plastic jar	A/3920/60
2 kg Plastic jar	A/3920/61
5 kg Plastic drum	A/3920/65
25 kg Fibre Keg	A/3920/70

NH_4Cl
CAS: 12125-02-9
MW: 53.49
Density at 20°C: 1.52
Melting point: 340°C

HS-Nr: 28271000
EINECS: 235-186-4
Risk: R22, R36
Safety: S22



Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	4.5 to 5.5	Potassium (K)	<50 ppm
Calcium (Ca)	<5 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<1 ppm	Total phosphorus (P)	<5 ppm
Iodide	<0.001 %	Total silicon (Si)	<2 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<10 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<1 ppm	Pyridine and homologues ($\text{C}_6\text{H}_5\text{N}$)	<10 ppm
Nitrate (NO_3)	<0.0005 %		

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Ammonium chloride

extra pure

SLR

packaging	product code
1 kg Plastic jar	A/3880/60
2 kg Plastic jar	A/3880/61
5 kg Plastic drum	A/3880/65

NH_4Cl
CAS: 12125-02-9
MW: 53.49
Density at 20°C: 1.52
Melting point: 340°C

HS-Nr: 28271000
EINECS: 235-186-4
Risk: R22, R36
Safety: S22

Xn

Assay: >99%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <200 ppm
Copper (Cu) <5 ppm	Total phosphorus (P) <20 ppm
Iron (Fe) <10 ppm	Total silicon (Si) <20 ppm
Lead (Pb) <10 ppm	Total sulphur (S) <100 ppm
Magnesium (Mg) <10 ppm	Zinc (Zn) <50 ppm
Potassium (K) <200 ppm	

tri-Ammonium citrate

extra pure

SLR

packaging	product code
500 g Plastic Jar	A/4080/53
1 kg Plastic Jar	A/4080/60

$(\text{NH}_4)_3\text{C}_6\text{H}_5\text{O}_7$
CAS: 3458-72-8
MW: 243.22

HS-Nr: 29181500
EINECS: 222-394-5

Assay: >98%

Guaranteed analysis

pH (aqueous solution 5%) 6 to 7	Sodium (Na) <500 ppm
Calcium (Ca) <50 ppm	Total chloride (Cl) <0.005%
Copper (Cu) <10 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <20 ppm	Total silicon (Si) <100 ppm
Lead (Pb) <10 ppm	Total sulphur (S) <100 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <20 ppm
Potassium (K) <100 ppm	

Ammonium chloride

Technical, powder

packaging	product code
2 kg Plastic jar	A/3800/61

NH_4Cl
CAS: 12125-02-9
MW: 53.49
Density at 20°C: 1.52
Melting point: 340°C

HS-Nr: 28271000
EINECS: 235-186-4
Risk: R22, R36
Safety: S22

Xn

Ammonium copper(II) chloride dihydrate

extra pure

SLR

packaging	product code
500 g Plastic jar	A/4240/53

$(\text{NH}_4)_2\text{CuCl}_4 \cdot 2\text{H}_2\text{O}$
CAS: 15610-76-1
MW: 277.47
HS-Nr: 28429080

EINECS: 239-690-5
Risk: R21/22
Safety: S20, S37, S44

Xn

Assay: >98%

Guaranteed analysis

Calcium (Ca) <50 ppm	Potassium (K) <500 ppm
Iron (Fe) <100 ppm	Sodium (Na) <500 ppm
Lead (Pb) <500 ppm	Zinc (Zn) <500 ppm
Magnesium (Mg) <500 ppm	

tri-Ammonium citrate

for analysis

Certified AR

packaging	product code
250 g Plastic Jar	A/4082/50
500 g Plastic Jar	A/4082/53
25 kg Fibre Keg	A/4082/70

$(\text{NH}_4)_3\text{C}_6\text{H}_5\text{O}_7$
CAS: 3458-72-8
MW: 243.22

HS-Nr: 29181500
EINECS: 222-394-5

Assay: 99 to 101%

Guaranteed analysis

Carbonisable substance (standard Ph.Eur USP) Conform	Manganese (Mn) <1 ppm
pH (aqueous solution 5%) 6 to 7	Molybdenum (Mo) <1 ppm
Reducing substance Conform	Nickel (Ni) <1 ppm
Aluminium (Al) <1 ppm	Oxalate (C_2O_4) <0.01%
Arsenic (As) <2 ppm	Potassium (K) <20 ppm
Barium (Ba) <1 ppm	Silver (Ag) <1 ppm
Cadmium (Cd) <1 ppm	Sodium (Na) <50 ppm
Calcium (Ca) <20 ppm	Strontium (Sr) <1 ppm
Chromium (Cr) <1 ppm	Titanium (Ti) <1 ppm
Cobalt (Co) <1 ppm	Total chloride (Cl) <0.001%
Copper (Cu) <1 ppm	Total phosphorus (P) <20 ppm
Iron (Fe) <5 ppm	Total silicon (Si) <20 ppm
Lead (Pb) <5 ppm	Total sulphur (S) <20 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm
Magnesium (Mg) <5 ppm	Zinc (Zn) <2 ppm

Ammonium dichromate

for analysis

Certified AR

packaging	product code
250 g Plastic jar	A/4440/50

$(\text{NH}_4)_2\text{Cr}_2\text{O}_7$
CAS: 7789-09-5
MW: 252.06
Melting point: 170 °C
ADR/RID: 5.1/II
UN: 1439

HS-Nr: 28415000
EINECS: 232-143-1
Risk: R45, R46, R60, R61, R2, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53
Safety: S53, S45, S60, S61

Assay: >99.5%

Guaranteed analysis

Aluminium (Al) <2 ppm	Potassium (K) <100 ppm
Barium (Ba) <1 ppm	Silver (Ag) <2 ppm
Cadmium (Cd) <1 ppm	Sodium (Na) <50 ppm
Calcium (Ca) <10 ppm	Strontium (Sr) <2 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.001%
Iron (Fe) <5 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <10 ppm
Lithium (Li) <1 ppm	Total sulphur (S) <100 ppm
Magnesium (Mg) <10 ppm	Vanadium (V) <1 ppm
Molybdenum (Mo) <1 ppm	Zinc (Zn) <10 ppm
Nickel (Ni) <1 ppm	

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Ammonium dichromate
extra pure

SLR



packaging	product code
250 g Plastic jar	A/4400/50
500 g Plastic jar	A/4400/53
1 kg Plastic jar	A/4400/60

(NH₄)₂Cr₂O₇
CAS: 7789-09-5
MW: 252.06
Melting point: 170 °C
ADR/RID: 5.1/II
UN: 1439

HS-Nr: 28415000
EINECS: 232-143-1
Risk: R45, R46, R60, R61, R2, R8,
R21, R25, R26, R34, R42/43,
R48/23, R50/53
Safety: S53, S45, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <200 ppm
Copper (Cu) <20 ppm	Total chloride (Cl) <0.1%
Iron (Fe) <20 ppm	Total phosphorus (P) <1000 ppm
Lead (Pb) <20 ppm	Total silicon (Si) <200 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <2000 ppm
Potassium (K) <200 ppm	Zinc (Zn) <50 ppm

Ammonium dihydrogen orthophosphate Certified AR
for analysis

packaging	product code
500 g Plastic jar	A/4560/53
1 kg Plastic jar	A/4560/60

(NH₄)H₂PO₄
CAS: 7722-76-1
MW: 115.03
Density at 20°C: 1.8

Melting point: 190°C
HS-Nr: 31054000
EINECS: 231-764-5
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%) 4 to 4.5	Potassium (K) <20 ppm
Calcium (Ca) <10 ppm	Sodium (Na) <50 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.0005 %
Iron (Fe) <5 ppm	Total silicon (Si) <10 ppm
Lead (Pb) <5 ppm	Total sulphur (S) <20 ppm
Magnesium (Mg) <10 ppm	Zinc (Zn) <5 ppm
Nitrate (NO ₃) <0.001 %	

Typical analysis

Aluminium (Al) <2 ppm	Manganese (Mn) <2 ppm
Arsenic (As) <2 ppm	Molybdenum (Mo) <2 ppm
Barium (Ba) <2 ppm	Nickel (Ni) <2 ppm
Cadmium (Cd) <2 ppm	Silver (Ag) <2 ppm
Chromium (Cr) <5 ppm	Strontium (Sr) <2 ppm
Cobalt (Co) <2 ppm	Titanium (Ti) <2 ppm
Lithium (Li) <2 ppm	Vanadium (V) <2 ppm

Lot analysis on the label.

Ammonium dihydrogen orthophosphate
extra pure

SLR



packaging	product code
500 g Plastic jar	A/4520/53

(NH₄)H₂PO₄
CAS: 7722-76-1
MW: 115.03
Density at 20°C: 1.8

Melting point: 190°C
HS-Nr: 31054000
EINECS: 231-764-5
Safety: S24/25

pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45

Ammonium fluoride
for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/4960/53

NH₄F
CAS: 12125-01-8
MW: 37.04
ADR/RID: 6.1/III
UN: 2505

HS-Nr: 28261910
EINECS: 235-185-9
Risk: R23/24/25
Safety: S1/2, S26, S45



Assay: >96%

Guaranteed analysis

pH (solution 0.5%) 6 to 7	Molybdenum (Mo) <1 ppm
Aluminium (Al) <2 ppm	Nickel (Ni) <1 ppm
Barium (Ba) <1 ppm	Potassium (K) <20 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Calcium (Ca) <5 ppm	Sodium (Na) <10 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Copper (Cu) <2 ppm	Total chloride (Cl) <0.0005%
Iron (Fe) <5 ppm	Total phosphorus (P) <10 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <1000 ppm
Lithium (Li) <1 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <2 ppm	Vanadium (V) <1 ppm
Manganese (Mn) <1 ppm	Zinc (Zn) <2 ppm

Lot analysis on the label.

Ammonium fluoride
extra pure

SLR



packaging	product code
500 g Plastic jar	A/4920/53

NH₄F
CAS: 12125-01-8
MW: 37.04
ADR/RID: 6.1/III
UN: 2505

HS-Nr: 28261910
EINECS: 235-185-9
Risk: R23/24/25
Safety: S1/2, S26, S45



Assay: >95%

Guaranteed analysis

pH (solution 0.5%) 6 to 7	Sodium (Na) <100 ppm
Calcium (Ca) <20 ppm	Total chloride (Cl) <0.002%
Copper (Cu) <10 ppm	Total phosphorus (P) <50 ppm
Iron (Fe) <20 ppm	Total silicon (Si) <2000 ppm
Lead (Pb) <20 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg) <10 ppm	Zinc (Zn) <10 ppm
Potassium (K) <100 ppm	

Ammonium formate
for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/5080/53

HCOONH₄
CAS: 540-69-2
MW: 63.06
Boiling pressure: 760 mmHg
Melting point: 115 to 120°C

HS-Nr: 29151200
EINECS: 208-753-9
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%) 6 to 7	Sodium (Na) <5 ppm
Calcium (Ca) <5 ppm	Total chloride (Cl) <0.001 %
Copper (Cu) <1 ppm	Total phosphorus (P) <10 ppm
Iron (Fe) <2 ppm	Total silicon (Si) <10 ppm
Lead (Pb) <2 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <2 ppm	Zinc (Zn) <2 ppm
Potassium (K) <10 ppm	

Typical analysis

Aluminium (Al) <1 ppm	Manganese (Mn) <1 ppm
Arsenic (As) <2 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm

Lot analysis on the label.

Ammonium formate

extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	A/5040/53
HCOONH ₄ CAS: 540-69-2 MW: 63.06 Boiling pressure: 760 mmHg Melting point: 115 to 120°C	HS-Nr: 29151200 EINECS: 208-753-9 Risk: R36/37/38 Safety: S26, S37/39	
Assay: >98%		
Guaranteed analysis		
pH (aqueous solution 5%)	6 to 7	Sodium (Na) <50 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl) <0.005%
Copper (Cu)	<10 ppm	Total phosphorus (P) <50 ppm
Iron (Fe)	<10 ppm	Total silicon (Si) <50 ppm
Lead (Pb)	<10 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn) <10 ppm
Potassium (K)	<50 ppm	

Ammonium hydrogen carbonate

for analysis

Certified AR

CertiFied	packaging	product code
	250 g Plastic jar	A/5160/50
	1 kg Plastic jar	A/5160/60
	25 kg Fibre Keg	A/5160/70
NH ₄ HCO ₃ CAS: 1066-33-7 MW: 79.06	HS-Nr: 28361000 EINECS: 213-911-5	
Assay: >99%		
Guaranteed analysis		
Calcium (Ca)	<5 ppm	Sodium (Na) <10 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl) <0.0005 %
Iron (Fe)	<1 ppm	Total phosphorus (P) <10 ppm
Lead (Pb)	<2 ppm	Total silicon (Si) <10 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S) <10 ppm
Potassium (K)	<10 ppm	Zinc (Zn) <5 ppm
Typical analysis		
Aluminium (Al)	<1 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag) <1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti) <1 ppm
Lithium (Li)	<1 ppm	Vanadium (V) <1 ppm
Manganese (Mn)	<1 ppm	

Lot analysis on the label.

Ammonium hydrogen carbonate

extra pure

SLR

SpeciFied	packaging	product code
	1 kg Plastic jar	A/5120/60
	5 kg Plastic drum	A/5120/65
NH ₄ HCO ₃ CAS: 1066-33-7 MW: 79.06	HS-Nr: 28361000 EINECS: 213-911-5	
Assay: >98%		
Guaranteed analysis		
Calcium (Ca)	<20 ppm	Sodium (Na) <50 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl) <0.002%
Iron (Fe)	<10 ppm	Total phosphorus (P) <50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S) <50 ppm
Potassium (K)	<50 ppm	Zinc (Zn) <20 ppm

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solution to discover on page 256


di-Ammonium hydrogen citrate

extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic Jar	A/5200/53
C ₆ H ₁₄ N ₂ O ₇ CAS: 3012-65-5 MW: 226.19	Density at 20°C: 1.5 HS-Nr: 29181500 EINECS: 221-146-3	
Assay: >98%		
Guaranteed analysis		
Lead (Pb)	<50 ppm	Total chloride (Cl) <0.005%
Sulfate (SO ₄)	<0.005%	

Ammonium hydrogen difluoride

extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	A/5280/53
	2.5 kg Plastic jar	A/5280/62
	25 kg Fibre Keg	A/5280/70
NH ₄ HF ₂ CAS: 1341-49-7 MW: 57.05 Boiling point: 230°C Boiling pressure: 760 mmHg Melting point: 125°C	ADR/RID: 8(6.1)/II UN: 2923 HS-Nr: 29181500 EINECS: 215-676-4 Risk: R25, R34 Safety: S22, S26, S37, S45	
Assay: >97%		
Guaranteed analysis		
Residue after ignition	<0.02%	Sulfate (SO ₄) <0.05%
Iron (Fe)	<100 ppm	Total chloride (Cl) <0.002%
Lead (Pb)	<100 ppm	

Ammonium hydrogen difluoride

Technical

packaging	product code
3 kg Plastic jar	A/5240/63
NH ₄ HF ₂ CAS: 1341-49-7 MW: 57.05 Boiling point: 230°C Boiling pressure: 760 mmHg Melting point: 125°C	ADR/RID: 8(6.1)/II UN: 2923 HS-Nr: 29181500 EINECS: 215-676-4 Risk: R25, R34 Safety: S22, S26, S37, S45

di-Ammonium hydrogen orthophosphate

for analysis

Certified AR

CertiFied	packaging	product code
	500 g Plastic Jar	A/5360/53
	1 kg Plastic Jar	A/5360/60
(NH ₄) ₂ HPO ₄ CAS: 7783-28-0 MW: 132.06 Density at 20°C: 1.61	HS-Nr: 31053000 EINECS: 231-987-8 Safety: S24/25	
Assay: >98%		
Guaranteed analysis		
pH (aqueous solution 5%)	7.8 to 8.2	Potassium (K) <10 ppm
Calcium (Ca)	<5 ppm	Sodium (Na) <10 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl) <0.0005 %
Iron (Fe)	<5 ppm	Total silicon (Si) <50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn) <5 ppm
Nitrate (NO ₃)	<0.001 %	
Typical analysis		
Aluminium (Al)	<1 ppm	Manganese (Mn) <1 ppm
Arsenic (As)	<1 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag) <1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti) <1 ppm
Lithium (Li)	<1 ppm	Vanadium (V) <1 ppm

Lot analysis on the label.

Ammonium iron (II) sulfate solution 0.1M (0.1N) NEW SPEC.

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/1101/15
2.5 L Plastic bottle	J/1101/PB17

Density at 20°C: 1.04
HS-Nr: 38220000
Safety: S24/25

Manufactured to a tolerance of $\pm 0.5\%$.
See the full range of Standard Volumetric solution page 266.

Ammonium iron(II) sulfate solution 0.025M

Standard solution ready to use for volumetric analysis

packaging	product code
2.5 L Glass bottle	J/1100/17

Density at 20°C: 1.04
HS-Nr: 28333000
Safety: S24/25

Guaranteed analysis

Value between 0.995 to 1.005

Manufactured to a tolerance of $\pm 0.5\%$.
See the full range of Standard Volumetric solution page 266.

Ammonium metavanadate

extra pure

SLR

packaging	product code
100 g Plastic jar	A/5680/48
250 g Plastic jar	A/5680/50
25 kg Plastic screw top Keg	A/5680/70

NH_4VO_3 UN: 2859
CAS: 7803-55-6 HS-Nr: 28419030
MW: 116.98 EINECS: 232-261-3
Melting point: 200 °C Risk: R20, R25, R36/37/38
ADR/RID: 6.1/II Safety: S22, S26, S37/39, S45

Assay: >99%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <100 ppm
Copper (Cu) <10 ppm	Total chloride (Cl) <0.002%
Iron (Fe) <20 ppm	Total phosphorus (P) <50 ppm
Lead (Pb) <20 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <10 ppm	Total sulphur (S) <50 ppm
Potassium (K) <100 ppm	Zinc (Zn) <10 ppm

Ammonium molybdate tetrahydrate

for analysis

Certified AR



packaging	product code
100 g Plastic jar	A/5760/48
250 g Plastic jar	A/5760/50
500 g Plastic jar	A/5760/53
1 kg Plastic jar	A/5760/60
25 kg Plastic drum	A/5760/70

$(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O}$ HS-Nr: 28417000
CAS: 12054-85-2 EINECS: 234-722-4
MW: 123.86 Risk: R22, R36/37/38
Density at 20°C: 2.49 Safety: S26, S37/39
Melting point: 190°C

Assay: 99 to 101%

Guaranteed analysis

Aluminium (Al) <1 ppm	Nickel (Ni) <1 ppm
Barium (Ba) <1 ppm	Potassium (K) <20 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Calcium (Ca) <5 ppm	Sodium (Na) <1000 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Copper (Cu) <10 ppm	Total chloride (Cl) <0.0005%
Iron (Fe) <5 ppm	Total sulphur (S) <50 ppm
Lead (Pb) <5 ppm	Vanadium (V) <1 ppm
Lithium (Li) <1 ppm	Zinc (Zn) <5 ppm
Magnesium (Mg) <5 ppm	Arsenate, phosphate and silicate <0.001%
Manganese (Mn) <2 ppm	

Lot analysis on the label.

Ammonium molybdate tetrahydrate

extra pure

SLR



packaging	product code
100 g Plastic jar	A/5720/48
250 g Plastic jar	A/5720/50
500 g Plastic jar	A/5720/53

$(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O}$ HS-Nr: 28417000
CAS: 12054-85-2 EINECS: 234-722-4
MW: 123.86 Risk: R22, R36/37/38
Density at 20°C: 2.49 Safety: S26, S37/39
Melting point: 190°C

Assay: >98%

Guaranteed analysis

Calcium (Ca) <20 ppm	Sodium (Na) <5000 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.002%
Iron (Fe) <20 ppm	Total silicon (Si) <200 ppm
Lead (Pb) <20 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <20 ppm
Potassium (K) <100 ppm	

Ammonium nickel(II) sulfate hexahydrate

extra pure

SLR



packaging	product code
500 g Plastic jar	A/5800/53

$(\text{NH}_4)_2\text{Ni}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ EINECS: 239-793-5
CAS: 15699-18-0 Risk: R22, R40, R42/43
MW: 394.97 Safety: S22, S36/37
HS-Nr: 28429080

Ammonium nitrate

for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/5920/53
1 kg Plastic jar	A/5920/60
2.5 kg Plastic jar	A/5920/62

NH_4NO_3 UN: 1942
CAS: 6484-52-2 HS-Nr: 31023090
MW: 80.04 EINECS: 229-347-8
Density at 20°C: 1.72 Risk: R8, R9, R36/37/38
Melting point: 169°C Safety: S17, S26, S37/39
ADR/RID: 5.1/III

Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%) 4.5 to 6	Potassium (K) <10 ppm
Calcium (Ca) <5 ppm	Sodium (Na) <5 ppm
Copper (Cu) <1 ppm	Total chloride (Cl) <0.0005 %
Iron (Fe) <1 ppm	Total phosphorus (P) <5 ppm
Lead (Pb) <2 ppm	Total silicon (Si) <5 ppm
Magnesium (Mg) <1 ppm	Total sulphur (S) <10 ppm
Nitrite (NO_2) <0.0005 %	Zinc (Zn) <1 ppm

Typical analysis

Aluminium (Al) <1 ppm	Manganese (Mn) <1 ppm
Arsenic (As) <2 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm

Lot analysis on the label.

Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



Ammonium nitrate
extra pure

SLR



packaging	product code
500 g Plastic jar	A/5880/53
1 kg Plastic jar	A/5880/60
5 kg Plastic drum	A/5880/65

NH_4NO_3 CAS: 6484-52-2 MW: 80.04 Density at 20°C: 1.72 Melting point: 169°C ADR/RID: 5.1/III	UN: 1942 HS-Nr: 31023090 EINECS: 229-347-8 Risk: R8, R9, R36/37/38 Safety: S17, S26, S37/39	
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Assay: >98%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <50 ppm
Copper (Cu) <20 ppm	Total chloride (Cl) <0.002%
Iron (Fe) <10 ppm	Total phosphorus (P) <10 ppm
Lead (Pb) <10 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <20 ppm	Total sulphur (S) <100 ppm
Potassium (K) <100 ppm	Zinc (Zn) <20 ppm

Ammonium oxalate monohydrate
for analysis

Certified AR



packaging	product code
100 g Plastic jar	A/6040/48
500 g Plastic jar	A/6040/53
1 kg Plastic jar	A/6040/60

$(\text{NH}_4)_2\text{C}_2\text{O}_4 \cdot \text{H}_2\text{O}$ CAS: 6009-70-7 MW: 142.11 Melting point: 70 °C ADR/RID: 6.1/III	UN: 2811 HS-Nr: 29171100 Risk: R21/22 Safety: S24/25	
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Assay: 99 to 101%

Guaranteed analysis

pH (solution 2.5%) 6.3 to 6.7	Sodium (Na) <10 ppm
Calcium (Ca) <5 ppm	Total chloride (Cl) <0.0005 %
Copper (Cu) <5 ppm	Total phosphorus (P) <20 ppm
Iron (Fe) <5 ppm	Total silicon (Si) <10 ppm
Lead (Pb) <5 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <5 ppm	Zinc (Zn) <5 ppm
Potassium (K) <10 ppm	

Typical analysis

Aluminium (Al) <2 ppm	Manganese (Mn) <2 ppm
Arsenic (As) <2 ppm	Molybdenum (Mo) <2 ppm
Barium (Ba) <2 ppm	Nickel (Ni) <2 ppm
Cadmium (Cd) <2 ppm	Silver (Ag) <2 ppm
Chromium (Cr) <2 ppm	Strontium (Sr) <2 ppm
Cobalt (Co) <2 ppm	Titanium (Ti) <2 ppm
Lithium (Li) <2 ppm	Vanadium (V) <2 ppm

Lot analysis on the label.

Ammonium oxalate monohydrate
extra pure

SLR



packaging	product code
500 g Plastic jar	A/6000/53

$(\text{NH}_4)_2\text{C}_2\text{O}_4 \cdot \text{H}_2\text{O}$ CAS: 6009-70-7 MW: 142.11 Melting point: 70 °C ADR/RID: 6.1/III	UN: 2811 HS-Nr: 29171100 Risk: R21/22 Safety: S24/25	
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Assay: >99%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <100 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <20 ppm	Total phosphorus (P) <200 ppm
Lead (Pb) <50 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <500 ppm
Potassium (K) <100 ppm	Zinc (Zn) <50 ppm

Ammonium persulfate
for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/6160/53
1 kg Plastic jar	A/6160/60

$(\text{NH}_4)_2\text{S}_2\text{O}_8$ CAS: 7727-54-0 MW: 228.19 Density at 20°C: 1.98 Melting point: 120 °C ADR/RID: 5.1/III	UN: 1444 HS-Nr: 38220000 EINECS: 231-786-5 Risk: R8, R22, R36/37/38, R42/43 Safety: S22, S24, S26, S37	
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Assay: >99%

Guaranteed analysis

Calcium (Ca) <5 ppm	Sodium (Na) <100 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.0005 %
Iron (Fe) <5 ppm	Total phosphorus (P) <50 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <5 ppm
Magnesium (Mg) <5 ppm	Zinc (Zn) <5 ppm
Potassium (K) <20 ppm	

Typical analysis

Aluminium (Al) <1 ppm	Manganese (Mn) <1 ppm
Arsenic (As) <5 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm

Lot analysis on the label.

Ammonium persulfate
extra pure

SLR



packaging	product code
1 kg Plastic jar	A/6120/60
3 kg Plastic jar	A/6120/63

$(\text{NH}_4)_2\text{S}_2\text{O}_8$ CAS: 7727-54-0 MW: 228.19 Density at 20°C: 1.98 Melting point: 120 °C ADR/RID: 5.1/III	UN: 1444 HS-Nr: 28334000 EINECS: 231-786-5 Risk: R8, R22, R36/37/38, R42/43 Safety: S22, S24, S26, S37	
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Assay: >98%

Guaranteed analysis

Calcium (Ca) <20 ppm	Sodium (Na) <500 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.002%
Iron (Fe) <50 ppm	Total phosphorus (P) <500 ppm
Lead (Pb) <50 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <50 ppm
Potassium (K) <200 ppm	

Ammonium polysulfide 8% solution **NEW SPEC.**

Certified AR



packaging	product code
500 mL Coated Glass Bottle	A/6560/PB08
2.5 L Coated Glass Bottle	A/6560/PB17

$(\text{NH}_4)_2\text{S}_x$ CAS: 12259-92-6 ADR/RID: 8(6.1)/II UN: 2818	HS-Nr: 28309085 EINECS: 235-512-5 Risk: R31, R34, R50 Safety: S26, S45, S61	
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Assay: >6%

Guaranteed analysis

Residue after ignition <0.01%	Carbonate (Na_2CO_3) <0.005%
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Lot analysis on the label.

Ammonium purpurate

pure, Metal indicator

packaging	product code
5 g Glass Jar	A/6200/44
25 g Glass Jar	A/6200/46

$C_8H_8N_6O_6$
 CAS: 3051-09-0
 MW: 284.19
 Boiling pressure: 760 mmHg
 Melting point: >300°C
 HS-Nr: 29252090
 EINECS: 221-266-6
 Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Ammonium pyrrolidine dithiocarbamate

for AAS

packaging	product code
25 g Plastic jar	A/6220/46

$(C_4H_8N)CSSNH_4$
 CAS: 5108-96-3
 MW: 164.29
 Melting point: 150 to 155°C
 HS-Nr: 29302000
 EINECS: 225-834-4
 Risk: R22, R36/37/38
 Safety: S26, S37/39



Guaranteed analysis

Residue after ignition <0.05%
 Cobalt (Co) <0.2 ppm
 Copper (Cu) <0.2 ppm
 Iron (Fe) <0.5 ppm
 Lead (Pb) <0.5 ppm
 Nickel (Ni) <0.2 ppm
 Zinc (Zn) <0.5 ppm

For the analysis by atomic absorption (AAS).

Contains ammonium carbonate to delay decomposition.

Ammonium sodium hydrogen orthophosphate tetrahydrate

extra pure



packaging	product code
500 g Plastic jar	A/6280/53
5 kg Plastic screw top Keg	A/6280/65

$Na(NH_4)HPO_4 \cdot 4H_2O$
 CAS: 13011-54-6
 MW: 209.07
 HS-Nr: 28429080
 EINECS: 235-860-8

Assay: >95%

Guaranteed analysis

Calcium (Ca) <50 ppm
 Copper (Cu) <50 ppm
 Iron (Fe) <50 ppm
 Lead (Pb) <50 ppm
 Magnesium (Mg) <100 ppm
 Potassium (K) <100 ppm
 Zinc (Zn) <50 ppm

Ammonium sulfamate

pure

packaging	product code
250 g Plastic jar	A/6400/50

$NH_4OSO_2NH_2$
 CAS: 7773-06-0
 MW: 114.12
 Boiling pressure: 760 mmHg
 Melting point: 132 to 135°C
 HS-Nr: 28429080
 EINECS: 231-871-7
 Risk: R22
 Safety: S22, S24/25



Assay: >99.0%

Ammonium sulfate

for analysis

Certified AR



packaging	product code
500 g Plastic jar	A/6480/53
1 kg Plastic jar	A/6480/60
2.5 kg Plastic jar	A/6480/62
5 kg Plastic drum	A/6480/65
25 kg Fibre Keg	A/6480/70

$(NH_4)_2SO_4$
 CAS: 7783-20-2
 MW: 132.14
 Density at 20°C: 1.76
 Melting point: 280°C
 HS-Nr: 31022100
 EINECS: 231-984-1
 Risk: R36/37/38
 Safety: S26, S37/39



Assay: >99.5%

Guaranteed analysis

Loss on drying <0.1%
 pH (aqueous solution 5%) 5 to 6
 Calcium (Ca) <5 ppm
 Copper (Cu) <1 ppm
 Iron (Fe) <1 ppm
 Lead (Pb) <2 ppm
 Magnesium (Mg) <2 ppm
 Nitrate (NO₃) <0.001 %
 Potassium (K) <20 ppm
 Sodium (Na) <20 ppm
 Total chloride (Cl) <0.0003 %
 Total phosphorus (P) <5 ppm
 Total silicon (Si) <20 ppm
 Zinc (Zn) <10 ppm

Typical analysis

Aluminium (Al) <2 ppm
 Arsenic (As) <2 ppm
 Barium (Ba) <2 ppm
 Cadmium (Cd) <2 ppm
 Chromium (Cr) <2 ppm
 Cobalt (Co) <2 ppm
 Lithium (Li) <2 ppm
 Manganese (Mn) <2 ppm
 Molybdenum (Mo) <2 ppm
 Nickel (Ni) <2 ppm
 Silver (Ag) <2 ppm
 Strontium (Sr) <2 ppm
 Titanium (Ti) <2 ppm
 Vanadium (V) <2 ppm

Lot analysis on the label.

Ammonium sulfate

extra pure

SLR



packaging	product code
1 kg Plastic jar	A/6440/60
2.5 kg Plastic jar	A/6440/62
5 kg Plastic drum	A/6440/65

$(NH_4)_2SO_4$
 CAS: 7783-20-2
 MW: 132.14
 Density at 20°C: 1.76
 Melting point: 280°C
 HS-Nr: 28332990
 EINECS: 231-984-1
 Risk: R36/37/38
 Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%) 5 to 6
 Calcium (Ca) <50 ppm
 Copper (Cu) <5 ppm
 Iron (Fe) <10 ppm
 Lead (Pb) <20 ppm
 Magnesium (Mg) <20 ppm
 Nitrate (NO₃) <0.01%
 Potassium (K) <200 ppm
 Sodium (Na) <200 ppm
 Total chloride (Cl) <0.002%
 Total phosphorus (P) <50 ppm
 Total silicon (Si) <100 ppm
 Zinc (Zn) <100 ppm

Ammonium (+) tartrate

See (+)-Tartaric acid diammonium salt, page 280



Ammonium thiocyanate

for analysis

Certified AR



packaging	product code
250 g Plastic jar	A/6680/50
500 g Plastic jar	A/6680/53
1 kg Plastic jar	A/6680/60

NH_4SCN
 CAS: 1762-95-4
 MW: 76.12
 Density at 20°C: 1.3
 Melting point: 149°C
 Flash point: 190°C
 HS-Nr: 28429080
 EINECS: 217-175-6
 Risk: R20/21/22, R32
 Safety: S36/37, S50A



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%) 4.8 to 5.8
 Substance consuming iodine <0.02%
 Calcium (Ca) <20 ppm
 Copper (Cu) <2 ppm
 Iron (Fe) <1 ppm
 Lead (Pb) <5 ppm
 Magnesium (Mg) <5 ppm
 Potassium (K) <10 ppm
 Sodium (Na) <10 ppm
 Sulfate (SO₄) <0.03 %
 Total chloride (Cl) <0.005 %
 Total phosphorus (P) <50 ppm
 Total silicon (Si) <10 ppm
 Zinc (Zn) <5 ppm

Typical analysis

Aluminium (Al) <1 ppm
 Arsenic (As) <2 ppm
 Barium (Ba) <1 ppm
 Cadmium (Cd) <1 ppm
 Chromium (Cr) <1 ppm
 Cobalt (Co) <1 ppm
 Lithium (Li) <1 ppm
 Manganese (Mn) <1 ppm
 Molybdenum (Mo) <1 ppm
 Nickel (Ni) <1 ppm
 Silver (Ag) <1 ppm
 Strontium (Sr) <1 ppm
 Sulfide (S) <0.001 %
 Titanium (Ti) <1 ppm
 Vanadium (V) <1 ppm

Lot analysis on the label.

Ammonium thiocyanate
extra pure

SLR



packaging	product code
500 g Plastic jar	A/6640/53
1 kg Plastic jar	A/6640/60
2.5 kg Plastic jar	A/6640/62
5 kg Plastic drum	A/6640/65

NH₄SCN
CAS: 1762-95-4
MW: 76.12
Density at 20°C: 1.3
Melting point: 149°C

Flash point: 190°C
HS-Nr: 38220000
EINECS: 217-175-6
Risk: R20/21/22, R32
Safety: S36/37, S50A



Assay: >98%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <200 ppm
Copper (Cu) <10 ppm	Total chloride (Cl) <0.02%
Iron (Fe) <5 ppm	Total phosphorus (P) <200 ppm
Lead (Pb) <20 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <20 ppm
Potassium (K) <50 ppm	

Ammonium thiocyanate solution 0.1M (0.1N) **NEW SPEC.**

Eur.Ph., USP, BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/1500/PB15
2.5 L Plastic bottle	J/1500/PB17

HS-Nr: 38220000
Risk: R21/22, R32
Safety: S2, S13

Manufactured to a tolerance of $\pm 0.2\%$.

See the full range of Standard Volumetric solution page 266.

Ammonium thiocyanate solution 0.1M (0.1N) **NEW SPEC.**

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/1500C/05
6 ampoule	J/1500C/90

HS-Nr: 28323000
Risk: R21/22, R32
Safety: S2, S13



Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Ammonium thiosulfate
extra pure

SLR



packaging	product code
500 g Plastic jar	A/6720/53
25 kg Fibre Keg	A/6720/70

(NH₄)₂S₂O₃
CAS: 7783-18-8
MW: 148.2

HS-Nr: 38220000
EINECS: 231-982-0

n-Amyl acetate

extra pure, mix of 3 and 2-Methylbutyl acetate

SLR



packaging	product code
500 mL Glass bottle	A/6800/08

CH₃COO(CH₂)₄CH₃
CAS: 628-63-7
MW: 130.19
Density at 20°C: 0.87
Boiling point: 149°C
Boiling pressure: 760 mmHg
Melting point: -70.8°C

Flash point: 25°C
ADR/RID: 3/III
UN: 1104
HS-Nr: 29153930
EINECS: 211-047-3
Risk: R10, R66
Safety: S23, S25

Assay (GC): >99%

iso-Amyl acetate

for analysis, Mix of 2- & 3- Methylbutyl acetate

Certified AR



packaging	product code
500 mL Glass bottle	A/6920/08
2.5 L Glass bottle	A/6920/17

CH₃COOCH₂CH₂CH(CH₃)₂
CAS: 123-92-2
MW: 130.19
Density at 20°C: 0.87
Boiling point: 142°C
Boiling pressure: 756 mmHg
Melting point: -78°C

Flash point: 25°C
ADR/RID: 3/III
UN: 1104
HS-Nr: 29153930
EINECS: 204-662-3
Risk: R10, R66
Safety: S23, S25

Assay (GC): >99%

Guaranteed analysis

Acidity <0.002 meq/g	Magnesium (Mg) <0.5 ppm
Colour <10 APHA	Manganese (Mn) <0.02 ppm
Residue after evaporation <20 ppm	Molybdenum (Mo) <0.02 ppm
Water <0.1%	Nickel (Ni) <0.02 ppm
Aluminium (Al) <0.1 ppm	Potassium (K) <1 ppm
Barium (Ba) <0.2 ppm	Sodium (Na) <0.5 ppm
Cadmium (Cd) <0.05 ppm	Strontium (Sr) <0.1 ppm
Calcium (Ca) <1 ppm	Titanium (Ti) <0.01 ppm
Chromium (Cr) <0.05 ppm	Total phosphorus (P) <0.5 ppm
Cobalt (Co) <0.02 ppm	Total silicon (Si) <0.02 ppm
Copper (Cu) <0.05 ppm	Total sulphur (S) <1 ppm
Iron (Fe) <0.2 ppm	Vanadium (V) <0.01 ppm
Lead (Pb) <0.05 ppm	Zinc (Zn) <1 ppm
Lithium (Li) <0.02 ppm	

Lot analysis on the label.

iso-Amyl acetate

extra pure, Mix of 2- & 3- Methylbutyl acetate

SLR



packaging	product code
500 mL Glass bottle	A/6880/08
2.5 L Glass bottle	A/6880/17

CH₃COOCH₂CH₂CH(CH₃)₃
CAS: 123-92-2
MW: 130.19
Density at 20°C: 0.87
Boiling point: 142°C
Boiling pressure: 756 mmHg
Melting point: -78°C

Flash point: 25°C
ADR/RID: 3/III
UN: 1104
HS-Nr: 29153930
EINECS: 204-662-3
Risk: R10, R66
Safety: S23, S25

Assay (GC): >98%

Guaranteed analysis

Acidity <0.01 meq/g	Lead (Pb) <1 ppm
Colour <20 APHA	Magnesium (Mg) <2 ppm
Residue after evaporation <200 ppm	Potassium (K) <0.5 ppm
Water <0.5%	Sodium (Na) <2 ppm
Calcium (Ca) <5 ppm	Total sulphur (S) <2 ppm
Copper (Cu) <1 ppm	Zinc (Zn) <0.5 ppm
Iron (Fe) <2 ppm	

n-Amyl alcohol *See Pentan-1-ol, page 185*sec-Amyl alcohol *See Pentan-2-ol, page 185*

iso-Amyl alcohol

extra pure

SLR



packaging	product code
500 mL Glass bottle	A/6960/08
2.5 L Coated Glass Bottle	A/6960/PB17

(CH₃)₂CHCH₂CH₂OH
CAS: 123-51-3
MW: 88.15
Density at 20°C: 0.8
Boiling point: 130°C
Boiling pressure: 760 mmHg
Melting point: -117°C

Flash point: 43°C
ADR/RID: 3/III
UN: 1105
HS-Nr: 29051900
EINECS: 204-633-5
Risk: R10, R20/22
Safety: S16

Assay (GC): >98%



Guaranteed analysis

Acidity / Alkalinity	<0.01 meq/g	Lead (Pb)	<1 ppm
Colour	<20 APHA	Magnesium (Mg)	<0.2 ppm
Residue after evaporation	<100 ppm	Potassium (K)	<0.5 ppm
Water	<0.5%	Sodium (Na)	<10 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<5 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<0.5 ppm

iso-Amyl alcohol
extra pure, for determination of fat in milk

SLR



packaging	product code
500 mL Glass bottle	A/7000/08
2.5 L Coated Glass Bottle	A/7000/PB17

(CH ₃) ₂ CHCH ₂ CH ₂ OH	Flash point: 43°C	
CAS: 123-51-3	ADR/RID: 3/III	
MW: 88.15	UN: 1105	
Density at 20°C: 0.8	HS-Nr: 29051900	
Boiling point: 130°C	INECS: 204-633-5	
Boiling pressure: 760 mmHg	Risk: R10, R20/22	
Melting point: -117°C	Safety: S16	

Assay (GC): >98%
Guaranteed analysis

Acidity / Alkalinity	<0.01 meq/g	Lead (Pb)	<1 ppm
Colour	<20 APHA	Magnesium (Mg)	<0.2 ppm
Residue after evaporation	<100 ppm	Potassium (K)	<0.5 ppm
Water	<0.5%	Sodium (Na)	<10 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<5 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<0.5 ppm

**Aniline
for analysis**

Certified AR



packaging	product code
500 mL Coated Glass Bottle	A/7280/PB08
2.5 L Coated Glass Bottle	A/7280/PB17

C ₆ H ₇ N	ADR/RID: 6.1/II	
CAS: 62-53-3	UN: 1547	
MW: 93.13	HS-Nr: 29214100	
Density at 20°C: 1.02	INECS: 200-539-3	
Boiling point: 181 to 185°C	Risk: R23/24/25, R40, R41, R43,	
Boiling pressure: 760 mmHg	R48/23/24/25, R50, R68	
Melting point: -6.2°C	Safety: S26, S27, S36/37/39,	
Flash point: 76°C	S45, S46, S61, S63	

Assay (GC): >99.8%
Guaranteed analysis

Residue after evaporation	<100 ppm	Manganese (Mn)	<0.1 ppm
Water	<0.1%	Molybdenum (Mo)	<0.1 ppm
Aluminium (Al)	<0.5 ppm	Nickel (Ni)	<0.1 ppm
Barium (Ba)	<0.1 ppm	Potassium (K)	<0.5 ppm
Cadmium (Cd)	<0.1 ppm	Sodium (Na)	<5 ppm
Calcium (Ca)	<1 ppm	Strontium (Sr)	<0.1 ppm
Chromium (Cr)	<0.2 ppm	Titanium (Ti)	<0.1 ppm
Cobalt (Co)	<0.1 ppm	Total phosphorus (P)	<1 ppm
Copper (Cu)	<0.5 ppm	Total silicon (Si)	<0.2 ppm
Iron (Fe)	<0.5 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<0.1 ppm	Vanadium (V)	<0.1 ppm
Lithium (Li)	<0.1 ppm	Zinc (Zn)	<1 ppm
Magnesium (Mg)	<0.5 ppm	Nitrobenzene (C ₆ H ₅ NO ₂)	<0.001%

**Aniline
extra pure**

SLR



packaging	product code
500 mL Coated Glass Bottle	A/7240/PB08
2.5 L Coated Glass Bottle	A/7240/PB17

C ₆ H ₇ N	ADR/RID: 6.1/II	
CAS: 62-53-3	UN: 1547	
MW: 93.13	HS-Nr: 29214100	
Density at 20°C: 1.02	INECS: 200-539-3	
Boiling point: 181 to 185°C	Risk: R23/24/25, R40, R41, R43,	
Boiling pressure: 760 mmHg	R48/23/24/25, R50, R68	
Melting point: -6.2°C	Safety: S26, S27, S36/37/39,	
Flash point: 76°C	S45, S46, S61, S63	

Assay (GC): >99%
Guaranteed analysis

Residue after evaporation	<500 ppm	Magnesium (Mg)	<2 ppm
Water	<0.5%	Potassium (K)	<2 ppm
Calcium (Ca)	<5 ppm	Sodium (Na)	<20 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<5 ppm

Aniline blue C.I. 42755
pure, water soluble

packaging	product code
25 g Glass packaging	A/7300/46

C ₃₂ H ₂₅ N ₃ Na ₂ O ₉ S ₃	UN: 249-113-9	
CAS: 28631-66-5	EINECS: 249-113-9	
MW: 737.71	Risk: R36/37/38	
HS-Nr: 32041900	Safety: S26, S37/39	

Guaranteed analysis

IR Analysis Conform

Aniline hydrochloride
extra pure

SLR



packaging	product code
100 g Glass packaging	A/7360/48
500 g Glass packaging	A/7360/53

C ₆ H ₇ N.HCl	UN: 1548	
CAS: 142-04-1	HS-Nr: 29214100	
MW: 129.59	EINECS: 205-519-8	
Boiling point: 245°C	Risk: R23/24/25, R40, R41, R43,	
Boiling pressure: 760 mmHg	R48/23/24/25, R50, R68	
Melting point: 196 to 199°C	Safety: S26, S27, S36/37/39,	
Flash point: 193°C	S45, S61, S63	
ADR/RID: 6.1/III		

Assay: >99%
Guaranteed analysis

Residue after ignition <0.05%

**8-Anilinnaphthalene-1-sulfonic acid ammonium salt
pure**

packaging	product code
250 g Plastic jar	A/7486/50

C ₆ H ₅ NHC ₁₀ H ₆ SO ₃ NH ₄	UN: 29214980	
CAS: 28836-03-5	EINECS: 249-265-6	
MW: 316.38	Risk: R36/38	

Guaranteed analysis

IR Analysis Conform

**Anion Eluent Concentrate
for Ion pair chromatography**


packaging	product code
100 mL Plastic bottle	J/4534/05

HS-Nr: 38220000

0.0028M sodium bicarbonate / 0.0022M sodium carbonate solution.
100mL makes 5 L of above solution.

**Anion standard mixed concentrate
for Ion pair chromatography (for column check)**

packaging	product code
100 mL Plastic bottle	J/4552/05

HS-Nr: 38220000

Manufactured to a tolerance of ± 1%.

100mL, to make 1000mL consisting of: 3ppm F, 6ppm Cl, 25ppm Br, 30ppm NO₃⁻, 60ppm PO₄³⁻, 30ppm SO₄²⁻

p-Anisaldehyde extra pure

SLR



packaging	product code
100 mL Coated Glass Bottle	A/7490/PB05

C₈H₈O₂
CAS: 123-11-5
MW: 136.15
Density at 20°C: 1.12
Boiling point: 248 to 249°C
Boiling pressure: 760 mmHg

Melting point: -1°C
Flash point: 116°C
HS-Nr: 29124900
EINECS: 204-602-6
Risk: R22



Assay (GC): >98%

Guaranteed analysis

Acidity <0.03 meq/g

Anisole pure

packaging	product code
500 mL Coated Glass Bottle	A/7600/PB08

C₇H₈O
CAS: 100-66-3
MW: 108.14
Density at 20°C: 0.99
Boiling point: 154°C
Boiling pressure: 760 mmHg
Melting point: -37°C

Flash point: 43°C
ADR/RID: 3/III
UN: 2222
HS-Nr: 29093090
EINECS: 202-876-1
Risk: R10, R20, R38
Safety: S16, S26, S37/39



Guaranteed analysis

IR Analysis Conform

Anthracene, blue fluorescence extra pure

SLR



packaging	product code
100 g Plastic Jar	A/7638/48

C₁₄H₁₀
CAS: 120-12-7
MW: 178.23
Boiling point: 340°C
Boiling pressure: 760 mmHg
Melting point: 215 to 218°C

Flash point: 121°C
ADR/RID: 9/III
UN: 3077
HS-Nr: 29029010
EINECS: 204-371-1
Safety: S24/25

Guaranteed analysis

Loss on drying 100°C <1% Melting Point tested 214 to 216°C

Anthrone extra pure

SLR



packaging	product code
25 g Plastic jar	A/7760/46

C₁₄H₁₀O
CAS: 90-44-8
MW: 194.23
Boiling point: 721°C
Boiling pressure: 760 mmHg

Melting point: 152 to 157°C
HS-Nr: 29143000
EINECS: 201-994-0
Safety: S24/25

Guaranteed analysis

Melting Point tested 152 to 158°C Sensitivity to sucrose Conform
Residue after ignition <0.2%

Anti-bumping granules extra pure, fused alumina

SLR



packaging	product code
250 g Plastic Jar	A/7770/50
500 g Plastic Jar	A/7770/53
1 kg Plastic Jar	A/7770/60

Al₂O₃
CAS: 1344-28-1
MW: 101.96
Density at 20°C: 3.97

Boiling point: 2980°C
Melting point: 2050°C
HS-Nr: 28182000
Safety: S24/25

Antimony standard metal solution 1000 ppm for AAS, solution HCl 1M

packaging	product code
100 mL Plastic bottle	J/8002/05
500 mL Plastic bottle	J/8002/08

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony standard metal solution 1000 ppm for ICP, solution HCl 1M

packaging	product code
500 mL Plastic bottle	J/8215/08

HS-Nr: 81101000

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony standard metal solution 10 000 ppm for ICP, solution HCl 1M

packaging	product code
100 mL Plastic bottle	J/8210/05

HS-Nr: 81101000

Risk: R20/22, R51/53

Safety: S61



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony standard metal solution 1000 ppm for ICP solution in H₂O/0.6% Tartaric Acid/HNO₃ trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLSB72Y
250 mL Plastic bottle	SPPLSB72T
500 mL Plastic bottle	SPPLSB72X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony standard metal solution 1000 ppm for ICP-MS solution in H₂O/0.6% Tartaric Acid/HNO₃ trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLSB72Y

Density at 20°C: 1

Risk: R36/37/38

Safety: S26, S37/39



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony standard metal solution 10 000 ppm for ICP solution in H₂O/0.6% Tartaric Acid/HNO₃ trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLSB73Y
500 mL Plastic bottle	SPPLSB73X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony standard metal solution 10 000 ppm for ICP solution in HCL 20%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLSB53X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Antimony metal min.99+ % pure

packaging	product code
500 g Plastic jar	A/7840/53

Sb
CAS: 7440-36-0
MW: 121.75
Density at 20°C: 6.68
Boiling point: 1635°C
Boiling pressure: 760 mmHg
Melting point: 630°C

ADR/RID: 6.1/III
UN: 2871
HS-Nr: 81101000
EINECS: 231-146-5
Risk: R20/22, R51/53
Safety: S61

Assay: >99%

Antimony trichloride for analysis

Certified AR



packaging	product code
250 g Plastic jar	A/8202/50

SbCl₃
CAS: 10025-91-9
MW: 228.11
Boiling point: 223°C
Boiling pressure: 760 mmHg
Melting point: 73°C

ADR/RID: 8/II
UN: 1733
HS-Nr: 28273985
EINECS: 233-047-2
Risk: R34, R51/53
Safety: S26, S45, S61

Assay: >99%

Guaranteed analysis

Insoluble (chloroform)	<0.01%	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<0.002%	Nickel (Ni)	<1 ppm
Barium (Ba)	<1 ppm	Potassium (K)	<50 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<2 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<200 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<50 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<50 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Antimony trichloride extra pure

SLR



packaging	product code
250 g Plastic jar	A/8200/50

SbCl₃
CAS: 10025-91-9
MW: 228.11
Boiling point: 223°C
Boiling pressure: 760 mmHg
Melting point: 73°C

ADR/RID: 8/II
UN: 1733
HS-Nr: 28273985
EINECS: 233-047-2
Risk: R34, R51/53
Safety: S26, S45, S61

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<50 ppm	Sodium (Na)	<500 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<200 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<200 ppm

Antimony trioxide extra pure

SLR



packaging	product code
500 g Plastic jar	A/8240/53

Sb₂O₃
CAS: 1309-64-4
MW: 291.42
Boiling point: 1456°C
Boiling pressure: 760 mmHg

Melting point: 656°C
HS-Nr: 28258000
EINECS: 215-175-0
Risk: R40
Safety: S22, S36/37

Assay: >99%

L(+)-Arabinose extra pure

SLR



packaging	product code
25 g Plastic jar	A/8280/46

C₅H₁₀O₅
CAS: 5328-37-0
MW: 150.13

Melting point: 155°C
HS-Nr: 29400000
EINECS: 226-214-6

Guaranteed analysis

IR Analysis Conform

L-Arginine extra pure

SLR



packaging	product code
25 g Plastic jar	A/8300/46

C₆H₁₄N₄O₂
CAS: 74-79-3
MW: 174.2
Melting point: 223-224°C

HS-Nr: 29252090
EINECS: 200-811-1
Safety: S24/25

Assay: >99%

Guaranteed analysis

Loss on drying	<0.3%	Ammonium (NH ₄)	<0.02%
Residue after ignition	<0.1%	Iron (Fe)	<50 ppm
Specific rotation (α 20/D)	+26.5° to +27.5°	Lead (Pb)	<20 ppm

Arsenic standard metal solution 1000 ppm for AAS, solution HCl 1M

packaging	product code
100 mL Plastic bottle	J/8003/05
500 mL Plastic bottle	J/8003/08

ADR/RID: 6.1/III
UN: 1556
HS-Nr: 28129000

Risk: R20/22, R50/53
Safety: S20/21, S28, S45, S60, S61

Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Arsenic standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLAS22Y
250 mL Plastic bottle	SPPLAS22T
500 mL Plastic bottle	SPPLAS22X

Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Arsenic standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLAS12X

Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Arsenic standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLAS23Y
500 mL Plastic bottle	SPPLAS23X

Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Arsenic standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLAS22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



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Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Arsenic trioxide extra pure

SLR



packaging	product code
500 g Plastic jar	A/8440/53

As₂O₃
CAS: 1327-53-3
MW: 197.84
Melting point: 312.3°C
ADR/RID: 6.1/II
UN: 1561
HS-Nr: 28112990
EINECS: 215-481-4
Risk: R45, R28, R34, R50/53
Safety: S53, S45, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<100 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<200 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<200 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<200 ppm

L-Ascorbic acid for analysis

Certified AR



packaging	product code
100 g Plastic jar	A/8882/48
500 g Plastic jar	A/8882/53

C₆H₈O₆
CAS: 50-81-7
MW: 176.12
Melting point: 190-192°C
HS-Nr: 29362700
EINECS: 200-066-2
Safety: S24/25

Assay: >99.7%

Guaranteed analysis

Specific rotation (α 20/D)	+20.5° to +21.5°	Potassium (K)	<5 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<5 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.005 %
Iron (Fe)	<2 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<2 ppm	Total sulphur (S)	<20 ppm
		Zinc (Zn)	<2 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

L-Asparagine pure

packaging	product code
100 g Plastic jar	A/8920/48

C₄H₈N₂O₃·H₂O
CAS: 5794-13-8
MW: 150.14
Melting point: 233 to 235°C
HS-Nr: 29241900
EINECS: 200-735-9
Safety: S24/25

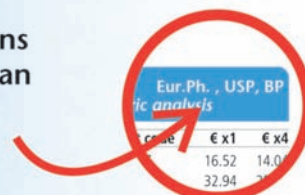
Assay: >98.5%

Guaranteed analysis

Loss on drying 100°C	10 to 12.5%	Iron (Fe)	<10 ppm
Specific rotation (α 20/D)	+33.7° to +36°	Lead (Pb)	<10 ppm

The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266



L-Aspartic acid pure

packaging		product code	
500 g	Plastic jar	A/8961/53	
$C_4H_7NO_4$	HS-Nr: 29224990		
CAS: 56-84-8	EINECS: 200-291-6		
MW: 133.11	Safety: S24/25		
Melting point: >230 °C			
Assay: >99%			
Guaranteed analysis			
Loss on drying	<0.5%	Iron (Fe)	<10 ppm
Residue after ignition	<0.1%	Lead (Pb)	<10 ppm
Specific rotation (α 20/D) ...	+24° to +26°		

Azomethine H pure, For colorimetric determination of boron

packaging		product code	
10 g	Plastic jar	A/9080/45	
$C_{17}H_{12}NO_8S_2Na$	HS-Nr: 29252090		
CAS: 5941-07-1	EINECS: 227-698-1		
MW: 445.39			
Guaranteed analysis			
IR Analysis	Conform		

Barbituric acid extra pure

SLR

packaging		product code	
100 g	Plastic jar	B/0120/48	
$C_4H_4N_2O_3$	HS-Nr: 29335200		
CAS: 67-52-7	EINECS: 200-658-0		
MW: 128.09	Safety: S24/25		
Melting point: 248 to 255°C			
Assay: >99%			

Barium standard metal solution 1000 ppm for AAS, solution HNO_3 1M

packaging		product code	
100 mL	Plastic bottle	J/8004/05	
500 mL	Plastic bottle	J/8004/08	
ADR/RID: 8/II	Risk: R34		
UN: 2031	Safety: S23, S26, S36, S45		
HS-Nr: 28342910			
Manufactured to a tolerance of $\pm 0.5\%$.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium standard metal solution 1000 ppm for ICP, solution HNO_3 1M

packaging		product code	
500 mL	Plastic bottle	J/8221/08	
ADR/RID: 8/II	Risk: R34		
UN: 2031	Safety: S23, S26, S36, S45		
HS-Nr: 38220000			
Manufactured to a tolerance of $\pm 0.5\%$.			
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium standard metal solution 10 000 ppm for ICP, solution HNO_3 1M

packaging		product code	
100 mL	Plastic bottle	J/8220/05	
ADR/RID: 8/II	Risk: R22, R34		
UN: 2031	Safety: S23, S26, S36, S45		
HS-Nr: 28342910			
Manufactured to a tolerance of $\pm 0.5\%$.			
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium standard metal solution 1000 ppm for ICP solution in HNO_3 2%, NIST certified

packaging		product code	
100 mL	Plastic bottle	SPPLBA22Y	
250 mL	Plastic bottle	SPPLBA22T	
500 mL	Plastic bottle	SPPLBA22X	
Density at 20°C: 1			
Risk: R34			
Safety: S36/37/39, S26, S45			
Manufactured to a tolerance of $\pm 0.5\%$.			
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

packaging		product code	
500 mL	Plastic bottle	SPPLBA12X	
Density at 20°C: 1			
Risk: R34			
Safety: S36/37/39, S26, S45			
Manufactured to a tolerance of $\pm 0.5\%$.			
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium standard metal solution 10 000 ppm for ICP solution in HNO_3 5%, NIST certified

packaging		product code	
100 mL	Plastic bottle	SPPLBA23Y	
500 mL	Plastic bottle	SPPLBA23X	
Risk: R34			
Safety: S36/37/39, S26, S45			
Manufactured to a tolerance of $\pm 0.5\%$.			
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium standard metal solution 1000 ppm for ICP-MS solution in HNO_3 2%, NIST certified

packaging		product code	
100 mL	Plastic bottle	SPCLBA22Y	
Density at 20°C: 1			
Risk: R34			
Safety: S36/37/39, S26, S45			
Manufactured to a tolerance of $\pm 0.5\%$.			
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.			
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.			

Barium pure, metal in liquid paraffin

packaging	product code
25 g box	B/0150/46
Ba CAS: 7440-39-3 MW: 137.34 Boiling point: 1640°C Melting point: 725°C ADR/RID: 4.3/II	
UN: 1400 HS-Nr: 28051910 EINECS: 231-149-1 Risk: R11, R14/15, R36/37/38 Safety: S8, S16, S26, S37/39, S43	



Barium carbonate for analysis

Certified AR

packaging	product code
100 g Plastic jar	B/0400/48
500 g Plastic jar	B/0400/53
BaCO ₃ CAS: 513-77-9 MW: 197.35 Density at 20°C: 4.43 Boiling point: 1450°C Melting point: 811°C	
ADR/RID: 6.1/III UN: 1564 HS-Nr: 28366000 EINECS: 208-167-3 Risk: R22 Safety: S24/25	



Assay: >99%

Guaranteed analysis

Aluminium (Al) <1 ppm	Nickel (Ni) <1 ppm
Arsenic (As) <2 ppm	Potassium (K) <50 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Calcium (Ca) <200 ppm	Sodium (Na) <100 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <0.1%
Cobalt (Co) <1 ppm	Tin (Sn) <2 ppm
Copper (Cu) <10 ppm	Titanium (Ti) <1 ppm
Iron (Fe) <10 ppm	Total chloride (Cl) <0.002%
Lead (Pb) <10 ppm	Total phosphorus (P) <10 ppm
Lithium (Li) <1 ppm	Total sulphur (S) <10 ppm
Magnesium (Mg) <20 ppm	Vanadium (V) <1 ppm
Manganese (Mn) <1 ppm	Zinc (Zn) <10 ppm
Molybdenum (Mo) <1 ppm	

Lot analysis on the label.

Barium carbonate extra pure

SLR

packaging	product code
500 g Plastic jar	B/0350/53
BaCO ₃ CAS: 513-77-9 MW: 197.35 Density at 20°C: 4.43 Boiling point: 1450°C Melting point: 811°C	
ADR/RID: 6.1/III UN: 1564 HS-Nr: 28366000 EINECS: 208-167-3 Risk: R22 Safety: S24/25	



Assay: >99%

Guaranteed analysis

Calcium (Ca) <500 ppm	Sodium (Na) <500 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.01%
Iron (Fe) <50 ppm	Total phosphorus (P) <50 ppm
Lead (Pb) <50 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <50 ppm
Potassium (K) <200 ppm	

Barium chloride dihydrate for analysis

Certified AR

packaging	product code
500 g Plastic jar	B/0550/53
1 kg Plastic jar	B/0550/60
25 kg Plastic screw top Keg	B/0550/70

BaCl ₂ ·2H ₂ O CAS: 10361-37-2 MW: 244.28 Melting point: 963°C ADR/RID: 6.1/III	
UN: 1564 HS-Nr: 28333000 EINECS: 233-788-1 Risk: R20, R25 Safety: S45	



Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%) 5 to 8	Sodium (Na) <50 ppm
Calcium (Ca) <20 ppm	Total nitrogen (N) <20 ppm
Copper (Cu) <2 ppm	Total phosphorus (P) <10 ppm
Iron (Fe) <1 ppm	Total silicon (Si) <10 ppm
Lead (Pb) <2 ppm	Total sulphur (S) <20 ppm
Magnesium (Mg) <10 ppm	Zinc (Zn) <5 ppm
Potassium (K) <20 ppm	

Typical analysis

Aluminium (Al) <2 ppm	Molybdenum (Mo) <1 ppm
Arsenic (As) <2 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Chromium (Cr) <2 ppm	Strontium (Sr) <0.01 %
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm
Manganese (Mn) <1 ppm	

Lot analysis on the label.

Barium chloride dihydrate extra pure

SLR

packaging	product code
500 g Plastic jar	B/0500/53
1 kg Plastic jar	B/0500/60
5 kg Plastic jar	B/0500/65
25 kg Plastic screw top Keg	B/0500/70

BaCl ₂ ·2H ₂ O CAS: 10361-37-2 MW: 244.28 Density at 20°C: 3.85 Melting point: 963°C ADR/RID: 6.1/III	
UN: 1564 HS-Nr: 28273980 EINECS: 233-788-1 Risk: R20, R25 Safety: S45	



Assay: 99 to 101%

Guaranteed analysis

Calcium (Ca) <200 ppm	Sodium (Na) <200 ppm
Copper (Cu) <20 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <10 ppm	Total silicon (Si) <50 ppm
Lead (Pb) <20 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg) <10 ppm	Zinc (Zn) <50 ppm
Potassium (K) <100 ppm	

Barium chloride solution 1M (2N) pure, ready to use

packaging	product code
1 L Coated Glass Bottle	J/1700/PB15

Density at 20°C: 1.1754 to 1.1781 ADR/RID: 6.1/III UN: 3287	
HS-Nr: 28273980 Risk: R20/22 Safety: S28	



Manufactured to a tolerance of ± 0.5%.

Barium diphenylamine-4-sulfonate pure, Redox indicator

packaging	product code
5 g Plastic jar	B/0620/44

C ₂₄ H ₂₀ BaN ₂ O ₆ S ₂ CAS: 6211-24-1 MW: 633.89 Melting point: 300°C ADR/RID: 6.1/II	
UN: 1564 HS-Nr: 29214400 EINECS: 228-278-0 Risk: R20/22 Safety: S28	



Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Barium hydroxide octahydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	B/0700/53
1 kg Plastic jar	B/0700/60

$\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$
 CAS: 12230-71-6
 MW: 315.48
 Density at 20°C: 2.18
 Melting point: 78°C
 ADR/RID: 8(6.1)/III

UN: 2923
 HS-Nr: 28164000
 EINECS: 241-234-5
 Risk: R20/22, R34
 Safety: S26, S36/37/39, S45



Assay: 98 to 102%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Carbonate (Na_2CO_3)	<2 %	Total chloride (Cl)	<0.001 %
Copper (Cu)	<5 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<500 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<50 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<0.5 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Barium hydroxide octahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	B/0650/53
1 kg Plastic jar	B/0650/60

$\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$
 CAS: 12230-71-6
 MW: 315.48
 Density at 20°C: 2.18
 Melting point: 78°C
 ADR/RID: 8(6.1)/III

UN: 2923
 HS-Nr: 28164000
 EINECS: 241-234-5
 Risk: R20/22, R34
 Safety: S26, S36/37/39, S45



Assay: 97 to 103%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<500 ppm
Carbonate (Na_2CO_3)	<2%	Sodium (Na)	<1000 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Barium nitrate for analysis

Certified AR



packaging	product code
250 g Plastic jar	B/0850/50
500 g Plastic jar	B/0850/53
1 kg Plastic jar	B/0850/60
25 kg Fibre Keg	B/0850/70

$\text{Ba}(\text{NO}_3)_2$
 CAS: 10022-31-8
 MW: 261.35
 Density at 20°C: 3.23
 Melting point: 592°C
 ADR/RID: 5.1(6.1)/II

UN: 1446
 HS-Nr: 28342920
 EINECS: 233-020-5
 Risk: R8, R20/22
 Safety: S17, S28A



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Potassium (K)	<50 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.5 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Barium nitrate extra pure

SLR



packaging	product code
500 g Plastic jar	B/0800/53
25 kg Plastic screw top Keg	B/0800/70

$\text{Ba}(\text{NO}_3)_2$
 CAS: 10022-31-8
 MW: 261.35
 Density at 20°C: 3.23
 Melting point: 592°C
 ADR/RID: 5.1(6.1)/II

UN: 1446
 HS-Nr: 28342920
 EINECS: 233-020-5
 Risk: R8, R20/22
 Safety: S17, S28A



Assay: >95%

Barium peroxide extra pure

SLR



packaging	product code
500 g Plastic jar	B/1080/53

BaO_2
 CAS: 1304-29-6
 MW: 169.36
 Melting point: 450°C
 ADR/RID: 5.1(6.1)/II

UN: 1449
 HS-Nr: 28164000
 EINECS: 215-128-4
 Risk: R8, R20/22
 Safety: S13, S27



Assay: >85%

Guaranteed analysis

Calcium (Ca)	<10 000 ppm	Total chloride (Cl)	<0.04%
Iron (Fe)	<200 ppm	Acids insoluble	<3%

Barium sulfate precipitated extra pure

SLR



packaging	product code
500 g Plastic jar	B/1120/53

BaSO_4
 CAS: 7727-43-7
 MW: 233.4
 Density at 20°C: 4.5

Melting point: 1580 °C
 HS-Nr: 28332700
 EINECS: 231-784-4
 Safety: S24/25

Benedict's reagent quantitative pure

packaging	product code
1 L Glass bottle	J/2150/15

HS-Nr: 38220000

50 mL of solution is equivalent to 0.1 g glucose.
 Blue to white colour change.

Benedict's reagent qualitative pure

packaging	product code
1 L Glass bottle	J/2100/15
2.5 L Glass bottle	J/2100/17

HS-Nr: 38220000

Bentonite extra pure

SLR



packaging	product code
1 kg Plastic jar	B/1300/60

CAS: 1302-78-9
HS-Nr: 25081000
EINECS: 215-108-5
Risk: R8, R20/22

Benzaldehyde extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	B/1400/PB08

C₇H₆O
CAS: 100-52-7
MW: 106.13
Density at 20°C: 1.05
Boiling point: 179°C
Boiling pressure: 760 mmHg
Melting point: -26°C

Flash point: 64°C
ADR/RID: 9/III
UN: 1990
HS-Nr: 29122100
EINECS: 202-860-4
Risk: R22
Safety: S24



Assay (GC): >99%

Guaranteed analysis

Acidity	<0.1 meq/g	Lead (Pb)	<5 ppm
Colour	<50 APHA	Magnesium (Mg)	<5 ppm
Sulfated ash	<0.05%	Potassium (K)	<100 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<100 ppm
Chloride ionized	<0.05%	Total phosphorus (P)	<5 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<5 ppm

Benzamide extra pure

SLR



packaging	product code
100 g Plastic jar	B/1460/48

C₇H₇NO
CAS: 55-21-0
MW: 121.14
Boiling point: 228°C
Boiling pressure: 760 mmHg

Melting point: 125 to 129°C
Flash point: 180°C
HS-Nr: 29242995
EINECS: 200-227-7
Risk: R22



Assay: >98%

1.2-Benzenediol *See Catechol, page 60*



1.3-Benzenediol *See Resorcinol, page 222*



Benzenesulfonyl chloride extra pure

SLR



packaging	product code
250 mL Coated Glass Bottle	B/1800/PB07

C₆H₅ClO₂S
CAS: 98-09-9
MW: 176.63
Density at 20°C: 1.33 to 1.43
Boiling point: 251 to 252°C
Boiling pressure: 760 mmHg
Melting point: 14.5°C

Flash point: 128°C
ADR/RID: 8/III
UN: 2225
HS-Nr: 29049010
EINECS: 202-636-6
Risk: R22, R29, R34
Safety: S26, S36/37/39, S45



Benzoic acid for analysis

Certified AR



packaging	product code
100 g Plastic jar	B/1950/48
500 g Plastic jar	B/1950/53
1 kg Plastic jar	B/1950/60

C₇H₆O₂
CAS: 65-85-0
MW: 122.12
Boiling point: 249°C
Boiling pressure: 760 mmHg
Melting point: 121 to 123°C

Flash point: 121°C
HS-Nr: 29163100
EINECS: 200-618-2
Risk: R22, R36/37/38, R42/43
Safety: S22, S24, S26, S37/39, S45



Assay: >99.9%

Guaranteed analysis

Substances	Lithium (Li)	<1 ppm
reducing KMnO ₄	Magnesium (Mg)	<2 ppm
Aluminium (Al)	Manganese (Mn)	<1 ppm
Arsenic (As)	Nickel (Ni)	<1 ppm
Barium (Ba)	Potassium (K)	<5 ppm
Cadmium (Cd)	Sodium (Na)	<5 ppm
Calcium (Ca)	Titanium (Ti)	<1 ppm
Chlorine (Cl) compounds	Total chloride (Cl)	<0.0005%
Chromium (Cr)	Total phosphorus (P)	<20 ppm
Cobalt (Co)	Total silicon (Si)	<10 ppm
Copper (Cu)	Total sulphur (S)	<20 ppm
Iron (Fe)	Vanadium (V)	<1 ppm
Lead (Pb)	Zinc (Zn)	<2 ppm

Lot analysis on the label.

Benzoic acid extra pure

SLR



packaging	product code
500 g Plastic jar	B/1900/53
1 kg Plastic jar	B/1900/60
25 kg Fibre Keg	B/1900/70

C₇H₆O₂
CAS: 65-85-0
MW: 122.12
Boiling point: 249°C
Boiling pressure: 760 mmHg
Melting point: 121 to 123°C

Flash point: 121°C
HS-Nr: 29163100
EINECS: 200-618-2
Risk: R22, R36/37/38, R42/43
Safety: S22, S24, S26, S37/39, S45



Assay: >99.5%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<20 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.002%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<20 ppm	Zinc (Zn)	<10 ppm

Benzoïn extra pure

SLR



packaging	product code
250 g Plastic jar	B/2050/50

C₁₄H₁₂O₂
CAS: 119-53-9
MW: 212.25
Boiling point: 194°C
Boiling pressure: 12 mmHg

Melting point: 133 to 137°C
HS-Nr: 29144900
EINECS: 204-331-3
Safety: S24/25

Guaranteed analysis

Melting Point tested	131 to 134°C	Residue after ignition	<0.2%
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Save money!
Order 4 bottles in a box



p-Benzoquinone extra pure

SLR

SpeciFied	packaging	product code
	100 g Glass packaging	B/2150/48
C ₆ H ₄ O ₂ CAS: 106-51-4 MW: 108.1 Density at 20°C: 1.31 Melting point: 112 to 116°C ADR/RID: 6.1/II	UN: 2587 HS-Nr: 29146900 EINECS: 203-405-2 Risk: R23/25, R36/37/38, R50 Safety: S26, S28A, S45, S61	
Assay: >98%		
Guaranteed analysis		
Residue after ignition	<0.5%	Water <1%

Benzoyl chloride for analysis

Certified AR

AR	packaging	product code
	500 mL Coated Glass Bottle	B/2350/PB08
C ₇ H ₅ ClO CAS: 98-88-4 MW: 140.57 Density at 20°C: 1.21 Boiling point: 198°C Boiling pressure: 760 mmHg Melting point: -1°C	Flash point: 93°C ADR/RID: 8(6.1)/II UN: 1736 HS-Nr: 29163290 EINECS: 202-710-8 Risk: R34 Safety: S26, S45	

Assay: >99.5%

Guaranteed analysis

Colour	<20 APHA	Manganese (Mn)	<0.1 ppm
Residue after ignition	<0.02%	Molybdenum (Mo)	<0.1 ppm
Aluminium (Al)	<0.5 ppm	Nickel (Ni)	<0.1 ppm
Barium (Ba)	<0.2 ppm	Potassium (K)	<5 ppm
Cadmium (Cd)	<0.2 ppm	Sodium (Na)	<10 ppm
Calcium (Ca)	<5 ppm	Strontium (Sr)	<0.1 ppm
Chromium (Cr)	<0.1 ppm	Titanium (Ti)	<0.1 ppm
Cobalt (Co)	<0.2 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<0.1 ppm	Total silicon (Si)	<0.2 ppm
Iron (Fe)	<0.5 ppm	Total sulphur (S)	<10 ppm
Lead (Pb)	<0.1 ppm	Vanadium (V)	<0.1 ppm
Lithium (Li)	<0.1 ppm	Zinc (Zn)	<1 ppm
Magnesium (Mg)	<2 ppm		

Benzoyl chloride extra pure

SLR

SpeciFied	packaging	product code
	250 mL Coated Glass Bottle	B/2300/PB07
	500 mL Coated Glass Bottle	B/2300/PB08
C ₆ H ₅ COCl CAS: 98-88-4 MW: 140.57 Density at 20°C: 1.21 Boiling point: 198°C Boiling pressure: 760 mmHg Melting point: -1°C	Flash point: 93°C ADR/RID: 8(6.1)/II UN: 1736 HS-Nr: 29163290 EINECS: 202-710-8 Risk: R34 Safety: S26, S45	

Assay: >98%

Guaranteed analysis

Colour	<30 APHA	Magnesium (Mg)	<10 ppm
Residue after ignition	<0.05%	Potassium (K)	<250 ppm
Calcium (Ca)	<250 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<1 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<5 ppm

pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Benzyl alcohol extra pure

SLR, Eur.Ph., BP, USP

SpeciFied	packaging	product code
	500 mL Glass bottle	B/2550/08
	2.5 L Coated Glass Bottle	B/2550/PB17
C ₆ H ₅ CH ₂ OH CAS: 100-51-6 MW: 108.14 Density at 20°C: 1.04 Boiling point: 205°C Boiling pressure: 760 mmHg	Melting point: -15°C Flash point: 93°C HS-Nr: 29062100 EINECS: 202-859-9 Risk: R20/22 Safety: S26	

Assay (GC): >98%

Guaranteed analysis

Residue after evaporation	<500 ppm	Benzaldehyde	<0.1%
Chlorine (Cl) compounds	<0.05%		

Benzyl chloroformate pure

packaging	product code
100 mL Coated Glass Bottle	B/2710/PB05
C ₇ H ₅ ClO ₂ CAS: 501-53-1 MW: 170.6 Density at 20°C: 1.15 to 1.25 ADR/RID: 8/I	UN: 1739 HS-Nr: 29159000 EINECS: 207-925-0 Risk: R34, R37 Safety: S26, S45

Beryllium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLBE22Y
	250 mL Plastic bottle	SPPLBE22T
	500 mL Plastic bottle	SPPLBE22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Beryllium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLBE23Y
	500 mL Plastic bottle	SPPLBE23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Beryllium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPCLBE22Y

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Bicarbonate indicator solution

pure, Concentrated stock reagent

packaging	product code
250 mL Glass bottle	J/2300/07
500 mL Glass bottle	J/2300/08

HS-Nr: 38220000

Biphenyl

pure

packaging	product code
500 g Plastic jar	B/2975/53

C₁₂H₁₀
CAS: 92-52-4
MW: 154.21
Boiling point: 255°C
Boiling pressure: 760 mmHg
Melting point: 68.5 to 71°C
Flash point: 113°C

ADR/RID: 9/III
UN: 3077
HS-Nr: 29029030
EINECS: 202-163-5
Risk: R36/37/38, R50/53
Safety: S23, S60, S61



Guaranteed analysis

IR Analysis Conform

2,2'-Bipyridine

See 2,2'-Dipyridyl, page 94



Bis(2-hydroxyethyl)-imino-tris-(hydroxymethyl)-methane

extra pure

SLR



packaging	product code
100 g Plastic jar	B/3010/48

C₈H₁₉NO₅
CAS: 6976-37-0
MW: 209.24
Melting point: 103 to 104°C

HS-Nr: 29252900
EINECS: 230-237-7
Risk: R21/22, R36/37/38
Safety: S22, S26, S36/37/39



Guaranteed analysis

IR Analysis Conform

1,4-Bis(2-methylstyryl)benzene

pure, BIS(MSB)

packaging	product code
1 kg Plastic jar	D/4055/60

C₂₄H₂₂
CAS: 13280-61-0
MW: 310.44
Melting point: 179 to 181°C

HS-Nr: 29029090
EINECS: 236-285-5
Safety: S24/25

Bismuth standard metal solution 1000 ppm

for ICP solution in HNO₃ 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLBI42Y
500 mL Plastic bottle	SPPLBI42X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Bismuth standard metal solution 10 ppm

for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLBI21AY

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Bismuth nitrate pentahydrate

for analysis

Certified AR



packaging	product code
100 g Plastic jar	B/3200/48

Bi(NO₃)₃·5H₂O
CAS: 10035-06-0
MW: 485.07
Boiling point: 80°C
Boiling pressure: 760 mmHg
Melting point: 30°C

ADR/RID: 5.1/II
UN: 1477
HS-Nr: 28342980
EINECS: 233-791-8
Risk: R8, R36/37/38
Safety: S17, S26, S37/39



Assay: 98 to 102%

Guaranteed analysis

Aluminium (Al)	<0.001%	Molybdenum (Mo)	<0.001%
Ammonia (NH ₃)	<0.005%	Nickel (Ni)	<0.001%
Barium (Ba)	<0.001%	Potassium (K)	<20 ppm
Cadmium (Cd)	<0.001%	Silver (Ag)	<0.001%
Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Chromium (Cr)	<0.001%	Strontium (Sr)	<0.001%
Cobalt (Co)	<0.001%	Titanium (Ti)	<0.001%
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Lithium (Li)	<0.001%	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<10 ppm	Vanadium (V)	<0.001%
Manganese (Mn)	<0.001%	Zinc (Zn)	<10 ppm

Lot analysis on the label.

3,3'-Bisthymolsulfonephthalein, sodium salt

See Thymolsulfonephthaleindi-(methyl-iminodiacetic acid) sodium salt, page 287



Bispyrazolone (3,3'-dimethyl-1,1'-diphenyl(4,4'-bi-2-pyrazoline)-5,5'-dione)

pure

packaging	product code
5 g Plastic Jar	B/3620/44

C₂₀H₁₈N₄O₂
CAS: 7477-67-0
MW: 346.39
Melting point: 355°C

HS-Nr: 38220000
EINECS: 231-282-5
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Borax

See di-Sodium tetraborate decahydrate, page 254



Standard Certified

for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Boric acid for electronic use (MOS)

packaging	product code
500 g Plastic jar	B/3820/53
H_3BO_3 CAS: 10043-35-3 MW: 61.83 Melting point: 169 °C HS-Nr: 28100000 EINECS: 233-139-2 Risk: R60 Safety: S53, S45	
Assay: >99.5%	
Guaranteed analysis	
Water-insoluble	<0.005% Phosphate (PO_4)
Calcium (Ca)	<50 ppm Sodium (Na)
Copper (Cu)	<2 ppm Sulfate (SO_4)
Iron (Fe)	<2 ppm Total chloride (Cl)
Lead (Pb)	<2 ppm

Boric acid extra pure, powder

SLR, Eur. Ph.

packaging	product code
500 g Plastic jar	B/3760/53
1 kg Plastic jar	B/3760/60
5 kg Plastic drum	B/3760/65
25 kg Fibre Keg	B/3760/70
H_3BO_3 CAS: 10043-35-3 MW: 61.83 Melting point: 169 °C HS-Nr: 28100000 EINECS: 233-139-2 Risk: R60 Safety: S53, S45	
Assay: >99.5%	
Guaranteed analysis	
Calcium (Ca)	<100 ppm Sodium (Na)
Copper (Cu)	<20 ppm Total chloride (Cl)
Iron (Fe)	<20 ppm Total phosphorus (P)
Lead (Pb)	<20 ppm Total silicon (Si)
Magnesium (Mg)	<20 ppm Total sulphur (S)
Potassium (K)	<100 ppm Zinc (Zn)

Boric acid for analysis

Certified AR

packaging	product code
500 g Plastic jar	B/3800/53
1 kg Plastic jar	B/3800/60
2.5 kg Plastic jar	B/3800/62
25 kg Fibre Keg	B/3800/70
H_3BO_3 CAS: 10043-35-3 MW: 61.83 Melting point: 169 °C HS-Nr: 28100000 EINECS: 233-139-2 Risk: R60 Safety: S53, S45	
Assay: >99.8%	

Guaranteed analysis	
Water-insoluble	<0.005% Potassium (K)
Calcium (Ca)	<10 ppm Sodium (Na)
Copper (Cu)	<2 ppm Total chloride (Cl)
Iron (Fe)	<2 ppm Total phosphorus (P)
Lead (Pb)	<2 ppm Total silicon (Si)
Magnesium (Mg)	<2 ppm Total sulphur (S)
Non-esterifiables	<0.05 % Zinc (Zn)

Typical analysis	
Aluminium (Al)	<2 ppm Manganese (Mn)
Arsenic (As)	<1 ppm Molybdenum (Mo)
Barium (Ba)	<1 ppm Nickel (Ni)
Cadmium (Cd)	<1 ppm Silver (Ag)
Chromium (Cr)	<1 ppm Strontium (Sr)
Cobalt (Co)	<1 ppm Titanium (Ti)
Lithium (Li)	<1 ppm Vanadium (V)

Lot analysis on the label.

Boron standard metal solution 1000 ppm for AAS, solution aqueous

packaging	product code
100 mL Plastic bottle	J/8006/05
500 mL Plastic bottle	J/8006/08

Density at 20°C: 1
HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Boron standard metal solution 1000 ppm for ICP, solution aqueous

packaging	product code
500 mL Plastic bottle	J/8231/08

Density at 20°C: 1
HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Boron standard metal solution 10 000 ppm for ICP, solution NH_3 1%

packaging	product code
100 mL Plastic bottle	J/8230/05

HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Boric acid extra pure, granular

SLR, Eur.Ph

packaging	product code
500 g Plastic jar	B/3750/53
1 kg Plastic jar	B/3750/60
5 kg Plastic drum	B/3750/65
H_3BO_3 CAS: 10043-35-3 MW: 61.83 Melting point: 169 °C HS-Nr: 28100000 EINECS: 233-139-2 Risk: R60 Safety: S53, S45	
Assay: >99.5%	

Guaranteed analysis	
Calcium (Ca)	<100 ppm Sodium (Na)
Copper (Cu)	<20 ppm Total chloride (Cl)
Iron (Fe)	<20 ppm Total phosphorus (P)
Lead (Pb)	<20 ppm Total silicon (Si)
Magnesium (Mg)	<20 ppm Total sulphur (S)
Potassium (K)	<100 ppm Zinc (Zn)

Boron standard metal solution 1000 ppm for ICP solution in H_2O , NIST certified

packaging	product code
100 mL Plastic bottle	SPPLB92Y
250 mL Plastic bottle	SPPLB92T
500 mL Plastic bottle	SPPLB92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Boron standard metal solution 10 000 ppm for ICP solution in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLB93Y
500 mL Plastic bottle	SPPLB93X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Boric oxide extra pure

SLR



packaging	product code
500 g Plastic jar	B/3850/53

B₂O₃
CAS: 1303-86-2
MW: 69.62
Density at 20°C: 2.46
Boiling point: 1860°C
Boiling pressure: 760 mmHg
Melting point: 450°C

ADR/RID: 8/III
UN: 3260
HS-Nr: 28100000
EINECS: 215-125-8
Risk: R36/37/38
Safety: S26, S37/39



Assay: >98%

Bromate standard 1000 ppm

For Ion chromatography in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPASBRO392Y

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.

Bromide standard solution 1000 ppm (1 mg/ml) for Ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4544/05

HS-Nr: 38220000

Guaranteed analysis

Value between 0.995 to 1.005

Manufactured to a tolerance of $\pm 1\%$.

Bromine for trace metal analysis

Primar



packaging	product code
100 mL Coated Glass Bottle	B/4055/PB05

Br₂
CAS: 7726-95-6
MW: 159.82
Density at 20°C: 3.11
Boiling point: 58.7°C
Boiling pressure: 760 mmHg
Melting point: -7.2°C

ADR/RID: 8(6.1)/I
UN: 1744
HS-Nr: 28013090
EINECS: 231-778-1
Risk: R26, R35, R50
Safety: S7/9, S26, S45, S61



Assay: >99.5%

Guaranteed analysis

Aluminium (Al) <0.02 ppm	Iron (Fe) <0.05 ppm
Arsenic (As) <1 ppm	Lead (Pb) <0.01 ppm
Barium (Ba) <0.005 ppm	Lithium (Li) <0.005 ppm
Cadmium (Cd) <0.005 ppm	Magnesium (Mg) <0.05 ppm
Calcium (Ca) <0.5 ppm	Manganese (Mn) <0.005 ppm
Chromium (Cr) <0.005 ppm	Molybdenum (Mo) <0.005 ppm
Cobalt (Co) <0.005 ppm	Nickel (Ni) <0.005 ppm
Copper (Cu) <0.005 ppm	Potassium (K) <0.1 ppm
Iodine (I) <0.5 ppm	

Silver (Ag) <0.005 ppm	Total phosphorus (P) <0.05 ppm
Sodium (Na) <0.5 ppm	Total silicon (Si) <0.05 ppm
Strontium (Sr) <0.005 ppm	Total sulphur (S) <0.5 ppm
Titanium (Ti) <0.005 ppm	Vanadium (V) <0.005 ppm
Total chloride (Cl) <0.05%	Zinc (Zn) <0.02 ppm

Bromine extra pure

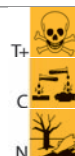
SLR



packaging	product code
100 mL Coated Glass Bottle	B/4000/PB05
500 mL Coated Glass Bottle	B/4000/PB08

Br₂
CAS: 7726-95-6
MW: 159.82
Density at 20°C: 3.11
Boiling point: 58.7°C
Boiling pressure: 760 mmHg
Melting point: -7.2°C

ADR/RID: 8(6.1)/I
UN: 1744
HS-Nr: 28013090
EINECS: 231-778-1
Risk: R26, R35, R50
Safety: S7/9, S26, S45, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca) <5 ppm	Sodium (Na) <10 ppm
Copper (Cu) <2 ppm	Total chloride (Cl) <0.5%
Iron (Fe) <2 ppm	Total phosphorus (P) <5 ppm
Lead (Pb) <2 ppm	Total silicon (Si) <5 ppm
Magnesium (Mg) <5 ppm	Total sulphur (S) <200 ppm
Potassium (K) <5 ppm	Zinc (Zn) <2 ppm

Bromobenzene pure

packaging	product code
250 mL Glass bottle	B/4300/07

C₆H₅Br
CAS: 108-86-1
MW: 157.02
Density at 20°C: 1.49 to 1.5
Boiling point: 156°C
Boiling pressure: 760 mmHg
Melting point: -31°C

Flash point: 51°C
ADR/RID: 3/III
UN: 2514
HS-Nr: 38220000
EINECS: 203-623-8
Risk: R10, R38, R51/53
Safety: S61



Assay (GC): >99%

1-Bromobutane pure

packaging	product code
100 mL Coated Glass Bottle	B/4310/PB05

C₄H₉Br
CAS: 109-65-9
MW: 137.03
Density at 20°C: 1.27
Boiling point: 100 to 104°C
Boiling pressure: 760 mmHg
Melting point: -112°C

Flash point: 23°C
ADR/RID: 3/II
UN: 1126
HS-Nr: 29033919
EINECS: 203-691-9
Risk: R10, R36/37/38
Safety: S16, S26, S37/39



Assay (GC): >98%

Bromocresol green pure, indicator grade

packaging	product code
1 g Glass packaging	B/4320/43
5 g Glass packaging	B/4320/44
25 g Glass packaging	B/4320/46

C₂₁H₁₄Br₄O₅
CAS: 76-60-8
MW: 698.01
Boiling pressure: 760 mmHg

Melting point: 225 °C
HS-Nr: 29349090
EINECS: 200-972-8
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Bromocresol green

pure, solution 0.04%, indicator grade

packaging	product code
-----------	--------------

500 mL Glass bottle

B/4320L/08

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S16, S24/25



Bromocresol purple

pure, solid, indicator grade

packaging	product code
-----------	--------------

5 g Glass packaging

B/4330/44

25 g Glass packaging

B/4330/46

C₂₁H₁₆Br₂O₅S
CAS: 115-40-2
MW: 540.21

HS-Nr: 29349090
EINECS: 204-087-8
Risk: R36/37/38

Melting point: 245 °C

Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Bromocresol purple

pure, solution 0.04%, indicator grade

packaging	product code
-----------	--------------

500 mL Glass bottle

B/4330L/08

ADR/RID: 3/III
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S16, S24/25



Bromoethane

pure

packaging	product code
-----------	--------------

250 mL Coated Glass Bottle

B/4350/PB07

500 mL Coated Glass Bottle

B/4350/PB08

C₂H₅Br
CAS: 74-96-4
MW: 108.97

Flash point: -23°C
ADR/RID: 6.1/II
UN: 1891

Density at 20°C: 1.46
Boiling point: 37 to 40°C
Boiling pressure: 760 mmHg
Melting point: -119°C

HS-Nr: 29033039
EINECS: 200-825-8
Risk: R11, R20/22, R40
Safety: S36/37



Assay (GC): >98%

Bromoform

pure

packaging	product code
-----------	--------------

100 mL Coated Glass Bottle

B/4400/PB05

CHBr₃
CAS: 75-25-2
MW: 252.75

ADR/RID: 6.1/III
UN: 2515
HS-Nr: 29033039

Density at 20°C: 2.58 to 2.68
Boiling point: 150 to 151°C
Boiling pressure: 760 mmHg
Melting point: 8°C

EINECS: 200-854-6
Risk: R22, R23, R36/38, R51/53
Safety: S28A, S45, S61



Guaranteed analysis

Ethanol 3 to 5%

2-Bromo-2-methylpropane

pure

packaging	product code
-----------	--------------

100 mL Coated Glass Bottle

B/4540/PB05

C₄H₉Br
CAS: 507-19-7
MW: 137.03

Flash point: 18°C
ADR/RID: 3/II
UN: 2342

Density at 20°C: 1.18
Boiling point: 72 to 74°C
Boiling pressure: 760 mmHg
Melting point: -20°C

HS-Nr: 29033039
EINECS: 208-065-9
Risk: R11, R36/37/38
Safety: S16, S26, S37/39



Assay (GC): >97%

1-Bromonaphthalene

extra pure

SLR



packaging	product code
-----------	--------------

100 mL Coated Glass Bottle

B/4550/PB05

C₁₀H₇Br
CAS: 90-11-9
MW: 207.08

Melting point: -1°C
Flash point: >110°C
HS-Nr: 29036900

Density at 20°C: 1.48 to 1.5
Boiling point: 279 to 281°C
Boiling pressure: 760 mmHg

EINECS: 201-965-2
Risk: R22



Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

Refractive index 1.657 to 1.66

Bromophenol blue

pure, indicator grade

packaging	product code
-----------	--------------

5 g Glass packaging

B/4630/44

25 g Glass packaging

B/4630/46

C₁₉H₁₀Br₂O₅S
CAS: 115-39-9
MW: 669.96

Melting point: 273°C
HS-Nr: 29349090
EINECS: 204-086-2

Boiling pressure: 760 mmHg

Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Bromophenol blue

pure, solution 0.2% in Methylated spirits

packaging	product code
-----------	--------------

500 mL Glass bottle

B/4631L/08

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R11, R22
Safety: S7, S16



Bromophenol blue

pure, solution 0.04%, indicator grade

packaging	product code
-----------	--------------

100 mL Glass bottle

B/4630L/05

500 mL Glass bottle

B/4630L/08

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000



Bromophenol red

pure, indicator grade

packaging	product code
-----------	--------------

1 g Glass Jar

B/4660/43

C₁₉H₁₂Br₂O₅S
CAS: 2800-80-8
MW: 512.19

HS-Nr: 29349090
EINECS: 220-538-1
Safety: S24/25

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Bromothymol blue

pure, indicator grade

packaging	product code
5 g Glass Jar	B/4690/44
$C_{27}H_{28}Br_2O_5S$ CAS: 76-59-5 MW: 624.38 Melting point: 204 °C	HS-Nr: 38220000 EINECS: 200-971-2 Safety: S24/25
Guaranteed analysis	
IR Analysis Conform	

Bromothymol blue

pure, solution 0.04%, indicator grade

packaging	product code
500 mL Glass bottle	B/4690L/08
ADR/RID: 3/II UN: 1170 HS-Nr: 38220000	EINECS: 200-971-2 Risk: R10 Safety: S16, S24/25



Bromure standard 1000 ppm

For Ion chromatography in H_2O , NIST certified



packaging	product code
100 mL Plastic bottle	SPASBR92Y
500 mL Plastic bottle	SPASBR92X

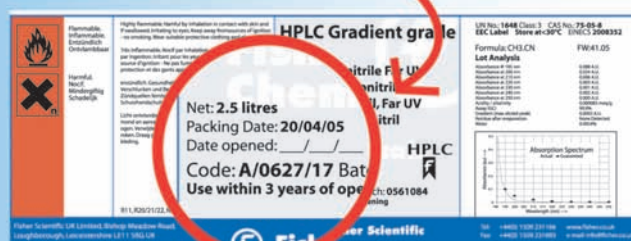
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NIST Buffer Standard solution ready to use for pH measurement NEW SPEC.

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
pH 2.00 to 7.00 buffer solution are stabilized with 10 ppm of Mercury (II) chloride

designation	packsize	package type	product code	page
Buffer solution pH 2.00 (glycine)	1 L	Plastic bottle	J/2800/15	47
	2.5 L	Plastic bottle	J/2800/17	47
	500 mL	Plastic bottle	J/2800/08	47
Buffer solution pH 3.00 (phthalate)	1 L	Plastic bottle	J/2810/15	47
	2.5 L	Plastic bottle	J/2810/17	47
	500 mL	Plastic bottle	J/2810/08	47
Buffer solution pH 4.00 (phthalate)	1 L	Plastic bottle	J/2820/15	47
	2.5 L	Plastic bottle	J/2820/17	47
	5 L	Plastic bottle	J/2820/21	47
	10 L	Cubitainer	J/2820/24	47
	500 mL	Plastic bottle	J/2820/08	47
Buffer solution pH 4.00 BS formulated	1 L	Plastic bottle	J/2821/15	
Buffer solution pH 5.00 (phthalate)	1 L	Plastic bottle	J/2830/15	47
	2.5 L	Plastic bottle	J/2830/17	47
	500 mL	Plastic bottle	J/2830/08	47
Buffer solution pH 6.00 (phosphate)	1 L	Plastic bottle	J/2840/15	47
	2.5 L	Plastic bottle	J/2840/17	47
	500 mL	Plastic bottle	J/2840/08	47
Buffer solution pH 6.87 BS formulated	1 L	Plastic bottle	J/2845/15	47
Buffer solution pH 7.00 (phosphate)	1 L	Plastic bottle	J/2850/15	47
	2.5 L	Plastic bottle	J/2850/17	47
	5 L	Plastic bottle	J/2850/21	47
	10 L	Cubitainer	J/2850/24	47
	500 mL	Plastic bottle	J/2850/08	47
Buffer solution pH 8.00 (borate)	1 L	Plastic bottle	J/2860/15	48
	2.5 L	Plastic bottle	J/2860/17	48
	10 L	Bag in Box	J/2860/24	48
	500 mL	Plastic bottle	J/2860/08	48
Buffer solution pH 9.00 (borate)	2.5 L	Plastic bottle	J/2865/17	48
Buffer solution pH 9.2 (borate)	1 L	Plastic bottle	J/2870/15	48
	2.5 L	Plastic bottle	J/2870/17	48
	5 L	Plastic bottle	J/2870/21	48
	10 L	Cubitainer	J/2870/24	48
	500 mL	Plastic bottle	J/2870/08	48
Buffer solution pH 9.23 (borate)	1 L	Plastic bottle	J/2875/15	48
Buffer solution pH 10.00 (borate)	1 L	Plastic bottle	J/2880/15	48
	2.5 L	Plastic bottle	J/2880/17	48
	5 L	Plastic bottle	J/2880/21	48
	500 mL	Plastic bottle	J/2880/08	48

NIST Buffer colour coded standard solution ready to use for pH measurement NEW SPEC.

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
pH 4.00 & 7.00 buffer solution are stabilized with 10 ppm of Mercury (II) chloride

designation	packsize	package type	product code	page
Buffer colour coded solution pH 4.00 (phthalate) Red	1 L	Plastic bottle	J/2825/15	47
	2.5 L	Plastic bottle	J/2825/17	47
	5 L	Plastic bottle	J/2825/21	47
	10 L	Bag in Box	J/2825/24	47
	500 mL	Plastic bottle	J/2825/08	47
Buffer colour coded solution pH 7.00 (phosphate) Yellow	1 L	Plastic bottle	J/2855/15	48
	2.5 L	Plastic bottle	J/2855/17	48
	5 L	Plastic bottle	J/2855/21	48
	10 L	Bag in Box	J/2855/24	48
	500 mL	Plastic bottle	J/2855/08	48
Buffer colour coded solution pH 10.00 (borate) Blue	1 L	Plastic bottle	J/2885/15	48
	2.5 L	Plastic bottle	J/2885/17	48
	5 L	Plastic bottle	J/2885/21	48
	10 L	Bag in Box	J/2885/24	48
	500 mL	Plastic bottle	J/2885/08	48

NIST Buffer concentrated solution for pH measurement **NEW SPEC.**

Each ampoule makes up 500ml of solution

pH 2.00 to 7.00 buffer solution are stabilized with 10 ppm of Mercury (II) chloride

designation	packsize	package type	product code	page
Buffer concentrated solution pH 2.00 (glycine)	1	ampoule	J/2800C/05	47
	6	ampoule	J/2800C/90	47
Buffer concentrated solution pH 4.00 (phthalate)	1	ampoule	J/2820C/05	47
	6	ampoule	J/2820C/90	47
Buffer concentrated solution pH 7.00 (phosphate)	1	ampoule	J/2850C/05	48
	6	ampoule	J/2850C/90	48
Buffer concentrated solution pH 8.00 (borate)	1	ampoule	J/2860C/05	48
	6	ampoule	J/2860C/90	48
Buffer concentrated solution pH 9.2 (borate)	1	ampoule	J/2870C/05	48
	6	ampoule	J/2870C/90	48
Buffer concentrated solution pH 10.00 (borate)	1	ampoule	J/2880C/05	49
	6	ampoule	J/2880C/90	49

NIST Buffer colour coded concentrated solution for pH measurement **NEW SPEC.**

Each ampoule makes up 500ml of solution

Stabilized with 10 ppm of Mercury (II) chloride (except J/2885C)

designation	packsize	package type	product code	page
Buffer colour coded concentrated solution pH 4.00 (phthalate) Red	1	ampoule	J/2825C/05	47
	6	ampoule	J/2825C/90	47
Buffer colour coded concentrated solution pH 7.00 (phosphate) Yellow	1	ampoule	J/2855C/05	48
	6	ampoule	J/2855C/90	48
Buffer colour coded concentrated solution pH 10.00 (borate) Blue	1	ampoule	J/2885C/05	49
	6	ampoule	J/2885C/90	49

Buffer Tablets for pH measurement **NEW SPEC.**

Each ampoule makes up 100mL of solution

designation	packsize	package type	product code	page
Buffer tablets, pH 4 (phthalate)	50 PC	Plastic Jar	B/4760/77	47
Buffer tablets, pH 7 (phosphate)	50 PC	Plastic Jar	B/4765/77	48
Buffer tablets, pH 9.2 (borate)	50 PC	Plastic Jar	B/4770/77	48

Buffer Capsules for pH measurement

Each Capsule makes up 100mL of solution

designation	packsize	package type	product code	page
Buffer capsules pH 4.00	50 PC	Box of 50 capsules	PHJ-830-010X	
Buffer capsules pH 7.00		Box of 50 capsules	PHJ-830-020L	
Buffer capsules pH 9.00		Box of 50 capsules	PHJ-830-030Y	
Buffer capsules pH 10.00		Box of 50 capsules	PHJ-830-050C	

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Buffer solution pH 2.00 (glycine) **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2800/08
1 L Plastic bottle	J/2800/15
2.5 L Plastic bottle	J/2800/17

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer concentrated solution pH 2.00 (glycine) **NEW SPEC.** NIST Standard for pH measurement



packaging	product code
1 ampoule	J/2800C/05
6 ampoule	J/2800C/90

HS-Nr: 38220000

Each ampoule makes up 500ml of solution.
Stabilised with 10 ppm of Mercury (II) chloride

Buffer solution pH 3.00 (phthalate) **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2810/08
1 L Plastic bottle	J/2810/15
2.5 L Plastic bottle	J/2810/17

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer solution pH 4.00 (phthalate) **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2820/08
1 L Plastic bottle	J/2820/15
2.5 L Plastic bottle	J/2820/17
5 L Plastic bottle	J/2820/21
10 L Cubitainer	J/2820/24

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer colour coded solution pH 4.00 (phthalate) Red **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2825/08
1 L Plastic bottle	J/2825/15
2.5 L Plastic bottle	J/2825/17
5 L Plastic bottle	J/2825/21
10 L Bag in Box	J/2825/24

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer concentrated solution pH 4.00 (phthalate) **NEW SPEC.** NIST Standard for pH measurement



packaging	product code
1 ampoule	J/2820C/05
6 ampoule	J/2820C/90

HS-Nr: 38220000

Each ampoule makes up 500mL of solution.
Stabilised with 10 ppm of Mercury (II) Chloride.

Buffer colour coded concentrated solution pH 4.00 (phthalate) Red **NEW SPEC.** NIST Standard for pH measurement



packaging	product code
1 ampoule	J/2825C/05
6 ampoule	J/2825C/90

HS-Nr: 38220000

Each ampoule makes up 500ml of solution.
Stabilised with 10 ppm of Mercury (II) chloride.

Buffer tablets, pH 4 (phthalate) **NEW SPEC.** for pH measurement

packaging	product code
50 PC Plastic Jar	B/4760/77

HS-Nr: 29173990

Each tablet makes up 100mL of solution.

Buffer solution pH 5.00 (phthalate) **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2830/08
1 L Plastic bottle	J/2830/15
2.5 L Plastic bottle	J/2830/17

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer solution pH 6.00 (phosphate) **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2840/08
1 L Plastic bottle	J/2840/15
2.5 L Plastic bottle	J/2840/17

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer solution pH 6.87 BS formulated **NEW SPEC.** Standard solution ready to use for pH measurement

packaging	product code
1 L Plastic bottle	J/2845/15

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer solution pH 7.00 (phosphate) **NEW SPEC.** NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2850/08
1 L Plastic bottle	J/2850/15
2.5 L Plastic bottle	J/2850/17
5 L Plastic bottle	J/2850/21
10 L Cubitainer	J/2850/24

HS-Nr: 29173980

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
Stabilised with 10 ppm of Mercury (II) chloride

Buffer colour coded solution pH 7.00 (phosphate) Yellow NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2855/08
1 L Plastic bottle	J/2855/15
2.5 L Plastic bottle	J/2855/17
5 L Plastic bottle	J/2855/21
10 L Bag in Box	J/2855/24

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C
 Stabilised with 10 ppm of Mercury (II) chloride

Buffer concentrated solution pH 7.00 (phosphate) NEW SPEC.
NIST Standard for pH measurement


packaging	product code
1 ampoule	J/2850C/05
6 ampoule	J/2850C/90

HS-Nr: 38220000

Each ampoule makes up 500 mL of solution.
 Stabilised with 10 ppm of Mercury (II) Chloride.

Buffer colour coded concentrated solution pH 7.00 (phosphate) Yellow NEW SPEC.
NIST Standard for pH measurement


packaging	product code
1 ampoule	J/2855C/05
6 ampoule	J/2855C/90

HS-Nr: 38220000

Each ampoule makes up 500mL of solution.
 Stabilised with 10 ppm of Mercury (II) chloride.

Buffer tablets, pH 7 (phosphate) NEW SPEC.
for pH measurement

packaging	product code
50 PC Plastic Jar	B/4765/77

HS-Nr: 29173990

Each tablet makes up 100mL of solution.

Buffer solution pH 8.00 (borate) NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2860/08
1 L Plastic bottle	J/2860/15
2.5 L Plastic bottle	J/2860/17
10 L Bag in Box	J/2860/24

HS-Nr: 29173990

Manufactured to a tolerance of ± 0.02 pH Units at 20°C

Buffer concentrated solution pH 8.00 (borate) NEW SPEC.
NIST Standard for pH measurement


packaging	product code
1 ampoule	J/2860C/05
6 ampoule	J/2860C/90

HS-Nr: 38220000

Each ampoule makes up 500mL of solution.

Buffer solution pH 9.00 (borate) NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
2.5 L Plastic bottle	J/2865/17

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C

Buffer solution pH 9.2 (borate) NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2870/08
1 L Plastic bottle	J/2870/15
2.5 L Plastic bottle	J/2870/17
5 L Plastic bottle	J/2870/21
10 L Cubitainer	J/2870/24

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C

Buffer concentrated solution pH 9.2 (borate) NEW SPEC.
NIST Standard for pH measurement


packaging	product code
1 ampoule	J/2870C/05
6 ampoule	J/2870C/90

HS-Nr: 38220000

Each ampoule makes up 500mL of solution.

Buffer tablets, pH 9.2 (borate) NEW SPEC.
for pH measurement

packaging	product code
50 PC Plastic Jar	B/4770/77

HS-Nr: 29173990

Each tablet makes up 100mL of solution.

Buffer solution pH 9.23 (borate) NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
1 L Plastic bottle	J/2875/15

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.02 pH Units at 20°C

Buffer solution pH 10.00 (borate) NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2880/08
1 L Plastic bottle	J/2880/15
2.5 L Plastic bottle	J/2880/17
5 L Plastic bottle	J/2880/21

HS-Nr: 29173980

Manufactured to a tolerance of ± 0.02 pH Units at 20°C

Buffer colour coded solution pH 10.00 (borate) Blue NEW SPEC.
NIST Standard solution ready to use for pH measurement

packaging	product code
500 mL Plastic bottle	J/2885/08
1 L Plastic bottle	J/2885/15
2.5 L Plastic bottle	J/2885/17
5 L Plastic bottle	J/2885/21
10 L Bag in Box	J/2885/24

HS-Nr: 29173990

Manufactured to a tolerance of ± 0.02 pH Units at 20°C

Buffer concentrated solution pH 10.00 (borate) NEW SPEC.

NIST Standard for pH measurement

Solutrate	packaging	product code
	1 ampoule	J/2880C/05
	6 ampoule	J/2880C/90

HS-Nr: 38220000

Each ampoule makes up 500 mL of solution.

Buffer colour coded concentrated solution pH 10.00 (borate) Blue NEW SPEC.

NIST Standard for pH measurement

Solutrate	packaging	product code
	1 ampoule	J/2885C/05
	6 ampoule	J/2885C/90

HS-Nr: 38220000

Each ampoule makes up 500 mL of solution.

Buffer solution ammonia-ammonium chloride pure, For water hardness testing

packaging	product code
2.5 L Plastic bottle	J/2500/17

ADR/RID: 8/III
UN: 2672
HS-Nr: 38220000

Risk: R34, R37
Safety: S7, S26

Guaranteed analysis
At pH 20°C 10.5 to 11.5

1-Butane sulfonic acid sodium salt for HPLC

Certified

HPLC	packaging	product code
	25 g Plastic Jar	B/4791/46

CH₃(CH₂)₃SO₃Na
CAS: 2386-54-1
MW: 160.16
Melting point: >300°C

HS-Nr: 29041000
EINECS: 219-201-1
Risk: R36/37/38
Safety: S26, S37/39

Assay: >98%

Lot analysis on the label.
Filtered to 0.2 µm.

(±)-2-Butanol See sec-Butanol, page 50



Butan-1-ol For chromatography, for the determination of 17-Ketosteroids

packaging	product code
500 mL Coated Glass Bottle	B/4860/PB08

C₄H₁₀O
CAS: 71-36-3
MW: 74.12
Density at 20°C: 0.805 to 0.815
Boiling point: 117.6°C
Boiling pressure: 760 mmHg
Melting point: -89°C
Flash point: 35°C

ADR/RID: 3/III
UN: 1120
HS-Nr: 29051300
EINECS: 200-751-6
Risk: R10, R22, R37/38, R41, R67
Safety: S7/9, S13, S26, S37/39, S46

Assay (GC): >99%

Guaranteed analysis
2-Butanone <0.005%

Butan-1-ol for analysis

Certified AR

CertiFied AR	packaging	product code
	500 mL Glass bottle	B/4850/08
	1 L Glass bottle	B/4850/15
	2.5 L Glass bottle	B/4850/17
	2.5 L Coated Glass Bottle	B/4850/PB17
	25 L Metal drum	B/4850/25

C₄H₁₀O
CAS: 71-36-3
MW: 74.12
Density at 20°C: 0.81
Boiling point: 117.6°C
Boiling pressure: 760 mmHg
Melting point: -89°C
Flash point: 35°C

ADR/RID: 3/III
UN: 1120
HS-Nr: 29051300
EINECS: 200-751-6
Risk: R10, R22, R37/38, R41, R67
Safety: S7/9, S13, S26, S37/39, S46



Assay (GC): >99.5%

Guaranteed analysis

Acidity <0.0005 meq/g	Potassium (K) <0.1 ppm
Colour <10 APHA	Sodium (Na) <1 ppm
Residue after evaporation <10 ppm	Total phosphorus (P) <0.2 ppm
Water <0.1%	Total silicon (Si) <0.05 ppm
Calcium (Ca) <0.5 ppm	Total sulphur (S) <0.5 ppm
Copper (Cu) <0.02 ppm	Zinc (Zn) <0.2 ppm
Iron (Fe) <0.1 ppm	2-Butanone <0.1 %
Lead (Pb) <0.05 ppm	Butan -2-ol <0.05 %
Magnesium (Mg) <0.1 ppm	

Typical analysis

Aluminium (Al) <0.2 ppm	Manganese (Mn) <0.02 ppm
Barium (Ba) <0.1 ppm	Molybdenum (Mo) <0.02 ppm
Cadmium (Cd) <0.05 ppm	Nickel (Ni) <0.02 ppm
Chromium (Cr) <0.02 ppm	Strontium (Sr) <0.05 ppm
Cobalt (Co) <0.02 ppm	Titanium (Ti) <0.02 ppm
Lithium (Li) <0.02 ppm	Vanadium (V) <0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Butan-1-ol extra pure

SLR

Specified AR	packaging	product code
	1 L Glass bottle	B/4800/15
	2.5 L Glass bottle	B/4800/17
	2.5 L Coated Glass Bottle	B/4800/PB17
	5 L Metal can	B/4800/21
	25 L Metal drum	B/4800/25

C₄H₁₀O
CAS: 71-36-3
MW: 74.12
Density at 20°C: 0.81
Boiling point: 117.6°C
Boiling pressure: 760 mmHg
Melting point: -89°C
Flash point: 35°C

ADR/RID: 3/III
UN: 1120
HS-Nr: 29051300
EINECS: 200-751-6
Risk: R10, R22, R37/38, R41, R67
Safety: S7/9, S13, S26, S37/39, S46



Assay (GC): >99%

Guaranteed analysis

Acidity <0.005 meq/g	Magnesium (Mg) <2 ppm
Colour <20 APHA	Potassium (K) <2 ppm
Residue after evaporation <50 ppm	Sodium (Na) <5 ppm
Water <0.5%	Total phosphorus (P) <2 ppm
Calcium (Ca) <5 ppm	Total silicon (Si) <2 ppm
Copper (Cu) <2 ppm	Total sulphur (S) <2 ppm
Iron (Fe) <5 ppm	Zinc (Zn) <2 ppm
Lead (Pb) <5 ppm	

see page 279 for suitable Tap & accessories.

Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



sec-Butanol (Butan-2-ol) for analysis

Certified AR



packaging	product code
1 L Glass bottle	B/5210/15
2.5 L Coated Glass Bottle	B/5210/PB17

C₄H₁₀O
CAS: 78-92-2
MW: 74.12
Density at 20°C: 0.8
Boiling point: 99°C
Boiling pressure: 760 mmHg
Melting point: -115°C
Flash point: 24°C

ADR/RID: 3/III

UN: 1120

HS-Nr: 29051300

EINECS: 201-156-4

Risk: R10, R36/37, R67

Safety: S7/9, S13, S24/25,

S26, S46

Xi



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Sodium (Na)	<0.5 ppm
Colour	<10 APHA	Total phosphorus (P)	<0.1 ppm
Residue after evaporation	<20 ppm	Total silicon (Si)	<0.02 ppm
Water	<0.2%	Total sulphur (S)	<1 ppm
Calcium (Ca)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Copper (Cu)	<0.02 ppm	2-Methylpropan--2-ol	<0.05 %
Iron (Fe)	<0.1 ppm	Butan--2-one	<0.05 %
Lead (Pb)	<0.05 ppm	Di-n-butyl ether	<0.05 %
Magnesium (Mg)	<0.05 ppm	Propan--2-ol	<0.1 %
Potassium (K)	<0.1 ppm		

Typical analysis

Aluminium (Al)	<0.05 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

sec-Butanol (Butan-2-ol) extra pure

SLR



packaging	product code
1 L Glass bottle	B/5200/15
2.5 L Coated Glass Bottle	B/5200/PB17
25 L Metal drum	B/5200/25

C₄H₁₀O
CAS: 78-92-2
MW: 74.12
Density at 20°C: 0.8
Boiling point: 99°C
Boiling pressure: 760 mmHg
Melting point: -115°C
Flash point: 24°C

ADR/RID: 3/III

UN: 1120

HS-Nr: 29051300

EINECS: 201-156-4

Risk: R10, R36/37, R67

Safety: S7/9, S13, S24/25,

S26, S46

Xi



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<5 ppm
Water	<0.5%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<1 ppm		

see page 279 for suitable Tap & accessories.

iso-Butanol for analysis

Certified AR



packaging	product code
500 mL Glass bottle	B/5150/08
2.5 L Coated Glass Bottle	B/5150/PB17
25 L Metal drum	B/5150/25

C₄H₁₀O
CAS: 78-83-1
MW: 74.12
Density at 20°C: 0.8
Boiling point: 108°C
Boiling pressure: 760 mmHg
Melting point: -108°C
Flash point: 28°C

ADR/RID: 3/III

UN: 1212

HS-Nr: 29051490

EINECS: 201-148-0

Risk: R10, R37/38, R41, R67

Safety: S7/9, S13, S26,

S37/39, S46

Xi



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Sodium (Na)	<1 ppm
Colour	<10 APHA	Total phosphorus (P)	<0.1 ppm
Residue after evaporation	<20 ppm	Total silicon (Si)	<0.02 ppm
Water	<0.2%	Total sulphur (S)	<1 ppm
Calcium (Ca)	<0.5 ppm	Zinc (Zn)	<0.2 ppm
Copper (Cu)	<0.1 ppm	2-Methylpropan--2-ol	<0.5 %
Iron (Fe)	<0.2 ppm	Butan -1-ol	<0.5 %
Lead (Pb)	<0.2 ppm	Butan -2-ol	<0.5 %
Magnesium (Mg)	<0.1 ppm	Butan--2-one	<0.1 %
Potassium (K)	<0.1 ppm	Butylaldehyde	<0.2 %

Typical analysis

Aluminium (Al)	<0.05 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

iso-Butanol extra pure

SLR



packaging	product code
2.5 L Coated Glass Bottle	B/5100/PB17
25 L Metal drum	B/5100/25

C₄H₁₀O
CAS: 78-83-1
MW: 74.12
Density at 20°C: 0.8
Boiling point: 108°C
Boiling pressure: 760 mmHg
Melting point: -108°C

Flash point: 28°C

ADR/RID: 3/III

HS-Nr: 29051490

Risk: R10, R37/38, R41, R67

Safety: S7/9, S13, S26,

S37/39, S46

Xi



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.05 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<5 ppm
Water	<0.5%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<1 ppm		

see page 279 for suitable Tap & accessories.

tert-Butanol for analysis

Certified AR



packaging	product code
500 mL Plastic bottle	B/5251/08
2.5 L Plastic bottle	B/5251/17

C₄H₁₀O
CAS: 75-65-0
MW: 74.12
Density at 20°C: 0.78
Boiling point: 83°C
Boiling pressure: 760 mmHg
Melting point: 25 to 25.5°C

Flash point: 11°C

ADR/RID: 3/II

UN: 1120

HS-Nr: 29051300

EINECS: 200-889-7

Risk: R11, R20, R36

Safety: S9, S16, S26, S36/37/39

F



Xn



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Potassium (K)	<0.1 ppm
Colour	<10 APHA	Sodium (Na)	<2 ppm
Residue after evaporation	<10 ppm	Total phosphorus (P)	<0.1 ppm
Water	<0.1%	Total silicon (Si)	<0.2 ppm
Calcium (Ca)	<0.5 ppm	Total sulphur (S)	<1 ppm
Copper (Cu)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Iron (Fe)	<0.2 ppm	Butan -2-ol	<0.2 %
Lead (Pb)	<0.1 ppm	Butan--2-one	<0.01 %
Magnesium (Mg)	<0.1 ppm	Butylaldehyde	<0.01 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

tert-Butanol

extra pure

SLR

packaging	product code
500 mL Plastic bottle	B/5250/08
2.5 L Plastic bottle	B/5250/17
25 L Metal drum	B/5250/25

$C_4H_{10}O$
CAS: 75-65-0
MW: 74.12
Density at 20°C: 0.78
Boiling point: 83°C
Boiling pressure: 760 mmHg
Melting point: 25 to 25.5°C
Flash point: 11°C
ADR/RID: 3/II
UN: 1120
HS-Nr: 29051300
EINECS: 200-889-7
Risk: R11, R20, R36
Safety: S9, S16, S26, S36/37/39



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<10 ppm
Water	<0.3%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<1 ppm		

see page 279 for suitable Tap & accessories.

2-n-Butoxyethanol

extra pure

SLR

packaging	product code
500 mL Coated Glass Bottle	B/4900/PB08
2.5 L Coated Glass Bottle	B/4900/PB17
25 L Metal drum	B/4900/25

$C_6H_{14}O_2$
CAS: 111-76-2
MW: 118.18
Density at 20°C: 0.899 to 0.903
Boiling point: 171°C
Boiling pressure: 760 mmHg
Melting point: -70°C
Flash point: >61°C
ADR/RID: 6.1/III
UN: 2810
HS-Nr: 29094300
EINECS: 203-905-0
Risk: R20/21/22, R36/38
Safety: S36/37, S46



Assay (GC): >98%

see page 279 for suitable Tap & accessories.

iso-Butyl acetate

extra pure

SLR

packaging	product code
2.5 L Glass bottle	B/5000/17
5 L Metal can	B/5000/21

$C_6H_{12}O_2$
CAS: 110-19-0
MW: 116.16
Density at 20°C: 0.87
Boiling point: 116 to 117.5°C
Boiling pressure: 760 mmHg
Melting point: -99°C
Flash point: 18°C
ADR/RID: 3/II
UN: 1213
HS-Nr: 29153980
EINECS: 203-745-1
Risk: R11, R66
Safety: S16, S23, S25, S29, S33



Assay (GC): >98%

n-Butyl acetate

for electronic use (MOS)

packaging	product code
2.5 L Glass bottle	B/4960/17
5 L Aluminium can	B/4960/21

$C_6H_{12}O_2$
CAS: 123-86-4
MW: 116.16
Density at 20°C: 0.88
Boiling point: 127°C
Boiling pressure: 760 mmHg
Melting point: -77.9°C
Flash point: 22°C
ADR/RID: 3/III
UN: 1123
HS-Nr: 29153980
EINECS: 204-658-1
Risk: R10, R66, R67
Safety: S25

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Manganese (Mn)	<0.01 ppm
Colour	<10 APHA	Molybdenum (Mo)	<0.01 ppm
Residue after evaporation	<10 ppm	Nickel (Ni)	<0.01 ppm
Substances darkened by (H ₂ SO ₄)	<20 APHA	Potassium (K)	<0.2 ppm
Water	<0.1%	Sodium (Na)	<0.2 ppm
Aluminium (Al)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Total phosphorus (P)	<0.2 ppm
Calcium (Ca)	<0.2 ppm	Total silicon (Si)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Total sulphur (S)	<0.5 ppm
Cobalt (Co)	<0.02 ppm	Vanadium (V)	<0.01 ppm
Copper (Cu)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Iron (Fe)	<0.1 ppm	Butan -1-ol	<0.5%
Lead (Pb)	<0.05 ppm	Butyl propanoate	<0.1%
Lithium (Li)	<0.01 ppm	Di-n-butyl ether	<0.2%
Magnesium (Mg)	<0.02 ppm	iso-Butyl acetate	<0.5%
		n-Butyl formate	<0.1%

n-Butyl acetate

for analysis

Certified AR

packaging	product code
1 L Glass bottle	B/4951/15
2.5 L Glass bottle	B/4951/17
10 L Metal drum	B/4951/24
200 L Metal drum	B/4951/27

$C_6H_{12}O_2$
CAS: 123-86-4
MW: 116.16
Density at 20°C: 0.88
Boiling point: 127°C
Boiling pressure: 760 mmHg
Melting point: -77.9°C
Flash point: 22°C
ADR/RID: 3/III
UN: 1123
HS-Nr: 29153300
EINECS: 204-658-1
Risk: R10, R66, R67
Safety: S25

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Potassium (K)	<0.2 ppm
Colour	<10 APHA	Sodium (Na)	<0.2 ppm
Residue after evaporation	<10 ppm	Total phosphorus (P)	<0.2 ppm
Substances darkened by (H ₂ SO ₄)	<20 APHA	Total silicon (Si)	<0.02 ppm
Water	<0.1%	Total sulphur (S)	<0.5 ppm
Calcium (Ca)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Copper (Cu)	<0.2 ppm	Butan -1-ol	<0.5 %
Iron (Fe)	<0.1 ppm	Butyl propanoate	<0.1 %
Lead (Pb)	<0.05 ppm	Di-n-butyl ether	<0.2 %
Magnesium (Mg)	<0.02 ppm	Iso-butyl acetate	<0.5 %
		N-Butyl formate	<0.1 %

Typical analysis

Aluminium (Al)	<0.02 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Acids, Bases and Water

for Trace Metal analysis

The right grade for the right detection level.
Choose between Optima®, Trace Metal® & Primar Plus® grade.

Read more page 9



n-Butyl acetate extra pure

SLR

Specified	packaging	product code
	500 mL Glass bottle	B/4950/08
	2.5 L Glass bottle	B/4950/17
	5 L Metal can	B/4950/21
	25 L Metal drum	B/4950/25
	200 L Metal drum	B/4950/27

C₆H₁₂O₂
CAS: 123-86-4
MW: 116.16
Density at 20°C: 0.88
Boiling point: 127°C
Boiling pressure: 760 mmHg
Melting point: -77.9°C

Flash point: 22°C
ADR/RID: 3/III
UN: 1123
HS-Nr: 29153300
EINECS: 204-658-1
Risk: R10, R66, R67
Safety: S25

Assay (GC): >98%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Lead (Pb)	<2 ppm
Colour	<20 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<50 ppm	Potassium (K)	<2 ppm
Substances darkened by (H ₂ SO ₄)	<50 APHA	Sodium (Na)	<5 ppm
Water	<0.5%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

sec-Butyl alcohol See sec-Butanol, page 50



tert-Butyl alcohol See tert-Butanol, page 50



n-Butylamine extra pure

SLR

Specified	packaging	product code
	250 mL Coated Glass Bottle	B/5260/PB07

C₄H₁₁N
CAS: 109-73-9
MW: 73.14
Density at 20°C: 0.74
Boiling point: 78°C
Boiling pressure: 760 mmHg
Melting point: -49°C
Flash point: -7°C

ADR/RID: 3(8)/II
UN: 1125
HS-Nr: 29211990
EINECS: 203-699-2
Risk: R11, R20/21/22, R35
Safety: S3, S16, S26, S29, S36/37/39, S45



Assay (GC): >98%

Butylated hydroxytoluene

See 2,6-Di-tert-butyl-p-cresol, page 81



tert-Butyl bromide

See 2-Bromo-2-methylpropane, page 43



n-Butyl bromide See 1-Bromobutane, page 42



n-Butyl chloride See 1-Chlorobutane, page 65



sec-Butyl chloride See 2-Chlorobutane, page 65



Butyl digol extra pure

SLR

Specified	packaging	product code
	500 mL Glass bottle	B/5300/08
	2.5 L Glass bottle	B/5300/17

C₈H₁₈O₃
CAS: 112-34-5
MW: 162.23
Density at 20°C: 0.949 to 0.959
Boiling point: 231°C
Boiling pressure: 760 mmHg

Melting point: -68°C
Flash point: 100°C
HS-Nr: 29094300
EINECS: 203-961-6
Risk: R36
Safety: S24, S26



Assay (GC): >98%

di-Butyl ether See D-n-butyl ether, page 81



Butyl iodide See 1-Iodobutane, page 130



tert-Butyl methyl ether for HPLC

Certified



packaging	product code
2.5 L Glass bottle	M/4496/17
25 L Stainless steel drum	M/4496/25SS

C₅H₁₂O
CAS: 1634-04-4
MW: 88.15
Density at 20°C: 0.74
Boiling point: 54 to 56°C
Boiling pressure: 760 mmHg
Melting point: -110°C

Flash point: -28°C
ADR/RID: 3/II
UN: 2398
HS-Nr: 29091990
EINECS: 216-653-1
Risk: R11, R38
Safety: S9, S16, S24



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Water	<0.02%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

220 nm	<0.25 A.U.	250 nm	<0.05 A.U.
230 nm	<0.15 A.U.	260 nm	<0.02 A.U.
240 nm	<0.1 A.U.	270 nm	<0.01 A.U.

Lot analysis on the label including an absorbance curve.
Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

tert-Butyl methyl ether extra pure

SLR

Specified	packaging	product code
	500 mL Glass bottle	M/4494/08
	2.5 L Glass bottle	M/4494/17
	2.5 L Coated Glass Bottle	M/4494/PB17
	5 L Metal can	M/4494/21
	25 L Metal drum	M/4494/25
	25 L Metal drum	M/4494/DH25
	200 L Metal drum	M/4494/27

C₅H₁₂O
CAS: 1634-04-4
MW: 88.15
Density at 20°C: 0.74
Boiling point: 54 to 56°C
Boiling pressure: 760 mmHg
Melting point: -110°C

Flash point: -28°C
ADR/RID: 3/II
UN: 2398
HS-Nr: 29091990
EINECS: 216-653-1
Risk: R11, R38
Safety: S9, S16, S24



Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation	<20 ppm	Water	<0.05%
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see page 279 for suitable Tap & accessories.

n-Butyric acid extra pure

SLR

Specified	packaging	product code
	500 mL Coated Glass Bottle	B/5500/PB08
C ₄ H ₈ O ₂ CAS: 107-92-6 MW: 88.11 Density at 20°C: 0.956 to 0.958 Boiling point: 162 to 165°C Boiling pressure: 760 mmHg Melting point: -7 to 5°C Assay: >99.0%	Flash point: 69°C ADR/RID: 8/III UN: 2820 HS-Nr: 29156010 EINECS: 203-532-3 Risk: R34 Safety: S26, S36, S45	

iso-Butyric acid pure

packaging	product code
500 mL Coated Glass Bottle	B/5550/PB08
C ₄ H ₈ O ₂ CAS: 79-31-2 MW: 88.11 Density at 20°C: 0.95 Boiling point: 153 to 154°C Boiling pressure: 760 mmHg Melting point: -47°C Assay: >99%	Flash point: 55°C ADR/RID: 3(8)/III UN: 2529 HS-Nr: 29156010 EINECS: 201-195-7 Risk: R21/22 

Cadmium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLCD22Y
	250 mL Plastic bottle	SPPLCD22T
	500 mL Plastic bottle	SPPLCD22X
Risk: R36/38 Safety: S26, S36/37		

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

SPX CertiPrep	packaging	product code
	500 mL Plastic bottle	SPPLCD12X
Risk: R34 Safety: S36/37/39, S26, S45		

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8005/05
500 mL Plastic bottle	J/8005/08
ADR/RID: 6.1(8)/II UN: 3289 HS-Nr: 38220000	Risk: R21/22, R34 Safety: S23, S26, S36, S45 

Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLCD23Y
	500 mL Plastic bottle	SPPLCD23X
Risk: R34 Safety: S36/37/39, S26, S45		

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8236/08
ADR/RID: 6.1(8)/II UN: 3289 HS-Nr: 38220000	Risk: R21/22, R34 Safety: S23, S26, S36, S45 

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPCLCD22Y
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45		

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8235/05
ADR/RID: 6.1(8)/II UN: 3289 HS-Nr: 38220000	Risk: R21/22, R34, R52/53 Safety: S23, S26, S36, S45 

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cadmium extra pure, metal granulated

SLR

Specified	packaging	product code
	100 g Plastic jar	C/0080/48
Cd CAS: 7440-43-9 MW: 112.4 Density at 20°C: 8.64 Boiling point: 765°C	Melting point: 321°C ADR/RID: 6.1(6.1)/I UN: 2930 HS-Nr: 38220000 EINECS: 231-152-8	

Guaranteed analysis

Arsenic (As)	<2 ppm	Lead (Pb)	<200 ppm
Copper (Cu)	<30 ppm	Zinc (Zn)	<100 ppm
Iron (Fe)	<30 ppm		

Cadmium chloride hydrate
extra pure

SLR



packaging	product code
100 g Plastic jar	C/0280/48

CdCl₂·aq.
CAS: 7790-78-5
MW: 183.32
Density at 20°C: 4.05
Boiling point: 967°C
Melting point: 568°C
ADR/RID: 6.1/I
UN: 2570
HS-Nr: 28273985
EINECS: 233-296-7
Risk: R45, R46, R60, R61, R25, R26, R48/23/25, R50/53
Safety: S53, S45, S60, S61



Assay: >79%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<100 ppm	Sodium (Na)	<500 ppm
Iron (Fe)	<100 ppm	Total sulphur (S)	<500 ppm
Lead (Pb)	<100 ppm	Zinc (Zn)	<500 ppm

Cadmium iodide
extra pure

SLR



packaging	product code
100 g Glass packaging	C/0360/48

CdI₂
CAS: 7790-80-9
MW: 366.21
Boiling point: 787°C
Boiling pressure: 760 mmHg
Melting point: 388°C
ADR/RID: 6.1/III
UN: 2570
HS-Nr: 28276000
EINECS: 232-223-6
Risk: R23/25, R33, R50/53, R68
Safety: S22, S45, S60, S61



Assay: >98%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Magnesium (Mg)	<100 ppm
Calcium (Ca)	<200 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<100 ppm	Sodium (Na)	<100 ppm
Iron (Fe)	<100 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<100 ppm	Zinc (Zn)	<100 ppm

Cadmium nitrate tetrahydrate
extra pure

SLR



packaging	product code
250 g Plastic jar	C/0420/50

Cd(NO₃)₂·4H₂O
CAS: 10022-68-1
MW: 308.48
Boiling point: 132°C
Boiling pressure: 760 mmHg
Melting point: 59°C
ADR/RID: 5.1/II
UN: 1477
HS-Nr: 28342910
Risk: R8, R20/21/22, R40, R50/53
Safety: S17, S36/37, S45, S60, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<100 ppm	Sodium (Na)	<100 ppm
Iron (Fe)	<100 ppm	Total chloride (Cl)	<0.01%
Lead (Pb)	<100 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm

Cadmium sulfate octahydrate
for analysis

Certified AR



packaging	product code
100 g Plastic jar	C/0520/48

3CdSO₄·8H₂O
CAS: 7790-84-3
MW: 769.52
Melting point: 41°C
ADR/RID: 6.1/III
UN: 2570
HS-Nr: 28332920
EINECS: 233-331-4
Risk: R45, R46, R60, R61, R25, R26, R48/23/25, R50/53
Safety: S53, S45, S60, S61



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	3 to 6	Manganese (Mn)	<0.5 ppm
Aluminium (Al)	<1 ppm	Potassium (K)	<2 ppm
Arsenic (As)	<2 ppm	Sodium (Na)	<10 ppm
Barium (Ba)	<0.5 ppm	Tin (Sn)	<1 ppm
Calcium (Ca)	<20 ppm	Titanium (Ti)	<0.5 ppm
Chromium (Cr)	<0.5 ppm	Total chloride (Cl)	<0.001%
Cobalt (Co)	<0.5 ppm	Total nitrogen (N)	<50 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<20 ppm	Vanadium (V)	<0.5 ppm
Lithium (Li)	<0.5 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<5 ppm		

Lot analysis on the label.

Cadmium sulfate octahydrate
extra pure

SLR



packaging	product code
100 g Plastic jar	C/0480/48
500 g Plastic jar	C/0480/53

3CdSO₄·8H₂O
CAS: 7790-84-3
MW: 769.52
Melting point: 41°C
ADR/RID: 6.1/III
UN: 2570
HS-Nr: 28332920
EINECS: 233-331-4
Risk: R45, R46, R60, R61, R25, R26, R48/23/25, R50/53
Safety: S53, S45, S60, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<100 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<100 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<200 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<50 ppm		

Caffeine
extra pure

SLR



packaging	product code
100 g Plastic jar	C/0800/48

C₈H₁₀N₄O₂
CAS: 58-08-2
MW: 194.19
Density at 20°C: 1.23
Melting point: 234 to 239°C
ADR/RID: 6.1/III
UN: 1544
HS-Nr: 29393000
EINECS: 200-362-1
Risk: R20/22
Safety: S26, S37/39



Guaranteed analysis

Melting Point tested	235 to 237°C	Residue after ignition	<0.1%
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NIST Certified
Standard from SPEX

A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS
Discover them on page 258

Calcium standard metal solution 1000 ppm
for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8010/05
500 mL Plastic bottle	J/8010/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8241/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8240/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCA22Y
250 mL Plastic bottle	SPPLCA22T

Risk: R36/38
Safety: S26



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCA12X

Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCA23Y
250 mL Plastic bottle	SPPLCA23T
500 mL Plastic bottle	SPPLCA23X

Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCA13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLCA22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Calcium extra pure, metal granulated

SLR

packaging	product code
100 g Plastic jar	C/0840/48

Ca
CAS: 7440-70-2
MW: 40.07
Boiling point: 1484°C
Boiling pressure: 760 mmHg
Melting point: 845°C

ADR/RID: 4.3/II
UN: 1401
HS-Nr: 28052100
EINECS: 231-179-5
Risk: R15
Safety: S8, S24/25, S43C



Calcium hardness indicator tablets pure

packaging	product code
100 Tablets	C/0880/79

HS-Nr: 28052100

Murexide indicator for calcium hardness titrations

Calcium acetate extra pure, dried

SLR

packaging	product code
250 g Plastic jar	C/0920/50
500 g Plastic jar	C/0920/53

(CH₃COO)₂Ca.xH₂O
CAS: 62-54-4
MW: 158.16

HS-Nr: 29152900
EINECS: 200-540-9

Assay: >95%

Guaranteed analysis

Loss on drying 200°C	5 to 7%	Sulfate (SO ₄)	<0.2%
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<10 ppm		

Calcium bromide dihydrate
extra pure

SLR



packaging	product code
-----------	--------------

250 g Plastic jar

C/0960/50

CaBr₂·2H₂O
CAS: 22208-73-7
MW: 235.93
HS-Nr: 28275900

EINECS: 232-164-6
Risk: R36
Safety: S26

Calcium carbide
Technical

packaging	product code
-----------	--------------

500 g Metal packaging

C/1000/53

Approx. CaC₂
CAS: 75-20-1
ADR/RID: 4.3/II
UN: 1402

HS-Nr: 28491000
EINECS: 200-848-3
Risk: R15
Safety: S8, S43

Calcium carbonate
for analysis

Certified AR



packaging	product code
-----------	--------------

250 g Plastic jar

C/1120/50

500 g Plastic jar

C/1120/53

1 kg Plastic jar

C/1120/60

25 kg Fibre Keg

C/1120/70

CaCO₃
CAS: 471-34-1
MW: 100.09
Melting point: 825 °C

HS-Nr: 28365000
EINECS: 207-439-9
Risk: R36/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.01 %
Iron (Fe)	<10 ppm	Total nitrogen (N)	<100 ppm
Lead (Pb)	<5 ppm	Total phosphorus (P)	<50 ppm
Magnesium (Mg)	<200 ppm	Total silicon (Si)	<20 ppm
Potassium (K)	<100 ppm	Total sulphur (S)	<100 ppm
Sodium (Na)	<200 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<0.001 %	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<0.005 %	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.05 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Calcium carbonate
extra pure

SLR, Eur.Ph., BP



packaging	product code
-----------	--------------

1 kg Plastic jar

C/1040/60

3 kg Plastic jar

C/1040/63

5 kg Plastic drum

C/1040/65

25 kg Plastic drum

C/1040/70

CaCO₃
CAS: 471-34-1
MW: 100.09
Melting point: 825 °C

HS-Nr: 28365000
EINECS: 207-439-9
Risk: R36/38
Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Copper (Cu)	<100 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<200 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<1000 ppm
Magnesium (Mg)	<2000 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<100 ppm
Sodium (Na)	<2000 ppm		

Calcium chloride

extra pure, fused, granular

SLR



packaging	product code
-----------	--------------

500 g Plastic jar

C/1400/53

2.5 kg Plastic jar

C/1400/62

CaCl₂
CAS: 10043-52-4
MW: 110.98

Boiling point: >1600°C
Boiling pressure: 760 mmHg

Melting point: 782°C
HS-Nr: 28272000
EINECS: 233-140-8
Risk: R36
Safety: S22, S24



Particle size 1.0-2.0 mm.

Calcium chloride

Technical, fused, porous lump

packaging	product code
-----------	--------------

1 kg Plastic jar

C/1320/60

3 kg Plastic jar

C/1320/63

25 kg Fibre Keg

C/1320/70

CaCl₂
CAS: 10043-52-4
MW: 110.98

Boiling point: >1600°C
Boiling pressure: 760 mmHg

Melting point: 782°C
HS-Nr: 28272000
EINECS: 233-140-8
Risk: R36
Safety: S22, S24



Calcium chloride dihydrate

for analysis

Certified AR



packaging	product code
-----------	--------------

250 g Plastic jar

C/1500/50

500 g Plastic jar

C/1500/53

1 kg Plastic jar

C/1500/60

5 kg Plastic drum

C/1500/65

25 kg Fibre Keg

C/1500/70

CaCl₂·2H₂O
CAS: 10035-04-8
MW: 147.02

Density at 20°C: 0.83
Melting point: 175°C

HS-Nr: 28272000
EINECS: 233-140-8
Risk: R36
Safety: S22, S24



Assay: 99 to 102%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Sodium (Na)	<100 ppm
Copper (Cu)	<2 ppm	Total nitrogen (N)	<50 ppm
Iron (Fe)	<2 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<50 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.02 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Fisher Chemical products takes
care of the environment!

Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Calcium chloride hexahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	C/1240/53
1 kg Plastic jar	C/1240/60
5 kg Plastic jar	C/1240/65

CaCl₂·6H₂O
CAS: 7774-34-7
MW: 219.08
HS-Nr: 28272000

EINECS: 233-140-8
Risk: R36
Safety: S22, S24



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	4.5 to 6.5	Sodium (Na)	<200 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<100 ppm		

Calcium formate extra pure

SLR



packaging	product code
500 g Plastic jar	C/1600/53

(HCOO)₂Ca
CAS: 544-17-2
MW: 130.12
Melting point: >300°C

HS-Nr: 29151200
EINECS: 208-863-7
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Chloride (Cl)	<0.005%	Iron (Fe)	<50 ppm
Copper (Cu)	<50 ppm	Lead (Pb)	<50 ppm

Calcium gluconate extra pure

SLR, Eur.Ph., USP



packaging	product code
500 g Plastic jar	C/1610/53

C₁₂H₂₂CaO₁₄·H₂O
CAS: 299-28-5
MW: 448.35

HS-Nr: 29181600
EINECS: 206-075-8
Safety: S24/25

Assay: 99 to 104%

Guaranteed analysis

Arsenic (As)	<2 ppm	Sulfate (SO ₄)	<0.15%
Lead (Pb)	<5 ppm	Total chloride (Cl)	<0.08%

Calcium hydroxide for analysis

Certified AR



packaging	product code
250 g Plastic jar	C/1642/50
500 g Plastic jar	C/1642/53
1 kg Plastic drum	C/1642/60

Ca(OH)₂
CAS: 1305-62-0
MW: 74.09
Density at 20°C: 2.24
Boiling point: 2850°C
Melting point: 580 °C

ADR/RID: 8/III
UN: 3262
HS-Nr: 28259010
EINECS: 215-137-3
Risk: R41
Safety: S26, S39



Assay: >97%

Guaranteed analysis

Copper (Cu)	<10 ppm	Total nitrogen (N)	<50 ppm
Iron (Fe)	<50 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<1000 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<100 ppm
Sodium (Na)	<500 ppm	Acids insoluble	<0.02%
Total chloride (Cl)	<0.1%		

Typical analysis

Aluminium (Al)	<0.001%	Manganese (Mn)	<5 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<0.002%	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.02%
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Calcium hydroxide extra pure

SLR



packaging	product code
1 kg Plastic jar	C/1640/60
5 kg Plastic drum	C/1640/65

Ca(OH)₂
CAS: 1305-62-0
MW: 74.09
Density at 20°C: 2.24
Boiling point: 2850°C
Melting point: 580 °C

ADR/RID: 8/III
UN: 3262
HS-Nr: 28259080
EINECS: 215-137-3
Risk: R41
Safety: S26, S39



Assay: >95%

Guaranteed analysis

Copper (Cu)	<100 ppm	Total chloride (Cl)	<0.1%
Iron (Fe)	<500 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<100 ppm	Total silicon (Si)	<5000 ppm
Magnesium (Mg)	<5000 ppm	Total sulphur (S)	<1000 ppm
Potassium (K)	<2000 ppm	Zinc (Zn)	<1000 ppm
Sodium (Na)	<500 ppm		

Calcium hypochlorite Technical

packaging	product code
1 kg Plastic jar	C/1720/60

Ca(OCl)₂
CAS: 7778-54-3
MW: 142.98
Melting point: 100°C
ADR/RID: 5.1/II

UN: 1748
HS-Nr: 38220000
EINECS: 231-908-7
Risk: R8, R22, R31, R34, R50
Safety: S26, S36/37/39, S45, S61



Calcium lactate pentahydrate extra pure

SLR, Eur.Ph., USP, BP



packaging	product code
500 g Plastic jar	C/1820/53

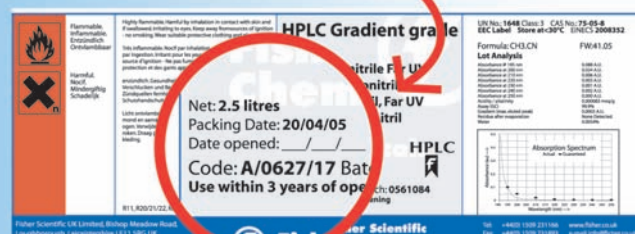
C₆H₁₀CaO₆·5H₂O
CAS: 814-80-2
HS-Nr: 29181100
EINECS: 212-406-7

Assay: 97 to 103%

Guaranteed analysis

Arsenic (As)	<2 ppm	Sulfate (SO ₄)	<0.25%
Iron (Fe)	<100 ppm	Total chloride (Cl)	<0.07%
Lead (Pb)	<10 ppm		

Use best before information on the label



Calcium nitrate tetrahydrate
for analysis

Certified AR



packaging	product code
500 g Plastic jar	C/1882/53
1 kg Plastic jar	C/1882/60

Ca(NO ₃) ₂ ·4H ₂ O	ADR/RID: 5.1/III	  Xi
CAS: 13477-34-4	UN: 1454	
MW: 236.15	HS-Nr: 28342980	
Density at 20°C: 1.86	EINECS: 233-332-1	
Boiling point: 132°C	Risk: R8, R36	
Boiling pressure: 760 mmHg	Safety: S17, S26, S39	
Melting point: 45°C		

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001 %
Iron (Fe)	<5 ppm	Total phosphorus (P)	<10 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<10 ppm
Magnesium (Mg)	<200 ppm	Total sulphur (S)	<50 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<1 ppm
Barium (Ba)	<0.002 %	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Strontium (Sr)	<0.01 %
Chromium (Cr)	<1 ppm	Tin (Sn)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Calcium nitrate tetrahydrate
extra pure

SLR



packaging	product code
500 g Plastic jar	C/1880/53
1 kg Plastic jar	C/1880/60
3 kg Plastic jar	C/1880/63

Ca(NO ₃) ₂ ·4H ₂ O	ADR/RID: 5.1/III	  Xi
CAS: 13477-34-4	UN: 1454	
MW: 236.15	HS-Nr: 28342980	
Density at 20°C: 1.86	EINECS: 233-332-1	
Boiling point: 132°C	Risk: R8, R36	
Boiling pressure: 760 mmHg	Safety: S17, S26, S39	
Melting point: 45°C		

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	4 to 7	Sodium (Na)	<500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005 %
Iron (Fe)	<20 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<500 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<200 ppm	Zinc (Zn)	<50 ppm

tri-Calcium di-orthophosphate
pure, precipitated

packaging	product code
500 g Plastic Jar	C/1960/53

Ca ₃ (PO ₄) ₂	HS-Nr: 38220000
CAS: 7758-87-4	EINECS: 231-840-8
MW: 310.17	Safety: S24/25
Melting point: 1670°C	

Calcium oxide
extra pure, lump

SLR



packaging	product code
1 kg Plastic jar	C/2100/60

CaO	ADR/RID: 8/III	 C
CAS: 1305-78-8	UN: 1910	
MW: 56.08	HS-Nr: 28259010	
Density at 20°C: 3.3	EINECS: 215-138-9	
Boiling point: 2850°C	Risk: R34	
Boiling pressure: 760 mmHg	Safety: S25, S26, S36/37/39, S45	
Melting point: 2570°C		

Calcium oxide
extra pure, powder

SLR



packaging	product code
1 kg Plastic jar	C/2120/60

CaO	ADR/RID: 8/III	 C
CAS: 1305-78-8	UN: 1910	
MW: 56.08	HS-Nr: 28259010	
Density at 20°C: 3.3	EINECS: 215-138-9	
Boiling point: 2850°C	Risk: R34	
Boiling pressure: 760 mmHg	Safety: S25, S26, S36/37/39, S45	
Melting point: 2570°C		

Calcium oxide

pure, powder low in chloride and sulfide

packaging	product code
250 g Plastic jar	C/2160/50

CaO	ADR/RID: 8/III	 C
CAS: 1305-78-8	UN: 1910	
MW: 56.08	HS-Nr: 28259010	
Density at 20°C: 3.3	EINECS: 215-138-9	
Boiling point: 2850°C	Risk: R34	
Boiling pressure: 760 mmHg	Safety: S25, S26, S36/37/39, S45	
Melting point: 2570°C		

Guaranteed analysis

Sulfide (S)	<0.005 %	Total chloride (Cl)	<0.005 %
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Calcium stearate
Technical

packaging	product code
500 g Plastic jar	C/2240/53

(C ₁₇ H ₃₅ .COO) ₂ Ca	
CAS: 1592-23-0	
HS-Nr: 29157030	
EINECS: 216-472-8	

Guaranteed analysis

IR Analysis	Conform
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Calcium sulfate anhydrous
extra pure, powder

SLR



packaging	product code
500 g Plastic jar	C/2440/53
1 kg Plastic jar	C/2440/60

CaSO ₄	HS-Nr: 28332990
CAS: 7778-18-9	EINECS: 231-900-3
MW: 136.15	Safety: S24/25
Melting point: 1450 °C	

Calcium sulfate anhydrous
pure, granular, Desiccating agent

packaging	product code
500 g Plastic jar	C/2400/53

CaSO ₄	HS-Nr: 28332990
CAS: 7778-18-9	EINECS: 231-900-3
MW: 136.15	Safety: S24/25
Melting point: 1450 °C	

The ready to use solutions
comply with the European
Pharmacopeia
Discover them
at page 266



Calcium sulfate dihydrate for analysis

Certified AR

packaging	product code
500 g Plastic Jar	C/2360/53

CaSO₄·2H₂O
CAS: 10101-41-4
MW: 172.17

HS-Nr: 28332990
EINECS: 231-900-3
Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

Acidity	<0.002 meq/g	Sodium (Na)	<500 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.005 %
Iron (Fe)	<10 ppm	Total nitrogen (N)	<10 ppm
Lead (Pb)	<10 ppm	Total phosphorus (P)	<50 ppm
Magnesium (Mg)	<100 ppm	Total silicon (Si)	<50 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<0.005 %	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<0.005 %	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<0.02 %
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Calcium sulfate dihydrate extra pure, precipitated

SLR

packaging	product code
500 g Plastic Jar	C/2320/53

CaSO₄·2H₂O
CAS: 10101-41-4
MW: 172.17

HS-Nr: 28332990
EINECS: 231-900-3
Safety: S24/25

Assay: >98%

Guaranteed analysis

Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<500 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<500 ppm		

Calcium sulfate hemihydrate Technical

packaging	product code
3 kg Plastic Jar	C/2280/63

CaO, S CaSO₄·1/2H₂O
CAS: 7778-18-9
MW: 145.15
Melting point: 1450 °C

HS-Nr: 28332990
EINECS: 231-900-3
Safety: S24/25

Calcium tetrahydrogen di-orthophosphate monohydrate

SLR

extra pure

packaging	product code
500 g Plastic jar	C/2520/53

CaH₄O₈P₂·Ca(H₂PO₄)₂·H₂O
CAS: 7758-23-8
MW: 252.07
HS-Nr: 38220000

EINECS: 231-837-1
Risk: R36/37/38
Safety: S26, S37/39

Assay: >97%

Guaranteed analysis

Arsenic (As)	<2 ppm	Sulfate (SO ₄)	<0.05%
Iron (Fe)	<150 ppm	Total chloride (Cl)	<0.005%

Calmagite See code H/2350, page 125



D-Camphor extra pure

SLR

packaging	product code
250 g Plastic jar	C/2555/50

C₁₀H₁₆O
CAS: 464-49-3
MW: 152.24
Boiling point: 204°C
Boiling pressure: 760 mmHg
Melting point: 176 to 180°C
Flash point: 64°C

ADR/RID: 4.1/III
UN: 2717
HS-Nr: 29147000
EINECS: 207-355-2
Risk: R11, R36/37/38
Safety: S16, S26, S37/39



Guaranteed analysis

IR Analysis Conform

DL-Camphor extra pure, origin synthetic

SLR

packaging	product code
250 g Glass packaging	C/2560/50

C₁₀H₁₆O
CAS: 21368-68-3
MW: 152.24
ADR/RID: 4.1/III

UN: 2717
HS-Nr: 29147000
EINECS: 244-350-4
Risk: R22



Guaranteed analysis

IR Analysis Conform

Canada balsam pure, dried in Xylene

packaging	product code
100 mL Glass bottle	J/2980/05

ADR/RID: 3/III
UN: 1993
HS-Nr: 38220000

Canada balsam For microscopy, filtered

packaging	product code
100 g Glass bottle	C/2640/48

HS-Nr: 13019000

Guaranteed analysis

IR Analysis Conform

Caproic acid See n-Hexanoic acid, page 115



Capryl alcohol See Octan-1-ol, page 179



Caprylic acid See n-Octanoic acid, page 179



Carbon standard solution 1000 ppm for ICP solution in H₂O, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLC92Y
500 mL Plastic bottle	SPPLC92X

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Carbon disulfide for analysis

Certified AR



packaging	product code
500 mL Coated Glass Bottle	C/2920/PB08
2.5 L Coated Glass Bottle	C/2920/PB17

CS ₂	ADR/RID: 3(6.1)/I	F T
CAS: 75-15-0	UN: 1131	
MW: 76.14	HS-Nr: 28131000	
Density at 20°C: 1.26	EINECS: 200-843-6	
Boiling point: 46°C	Risk: R11, R36/38, R48/23, R62, R63	
Melting point: -111°C	Safety: S16, S33, S36/37, S45	
Flash point: -30°C		

Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Magnesium (Mg)	<0.02 ppm
Colour	<10 APHA	Potassium (K)	<0.05 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<0.1 ppm
Water	<0.05%	Total phosphorus (P)	<0.1 ppm
Calcium (Ca)	<0.2 ppm	Total silicon (Si)	<0.01 ppm
Copper (Cu)	<0.02 ppm	Zinc (Zn)	<0.1 ppm
Iron (Fe)	<0.05 ppm	Benzene	<0.01 %
Lead (Pb)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.05 ppm	Molybdenum (Mo)	<0.01 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm
Manganese (Mn)	<0.01 ppm		

Carborundum

extra pure, powder, fine about 180 grit

SLR



packaging	product code
500 g Plastic jar	C/3092/53

CAS: 409-21-2
HS-Nr: 28492000
EINECS: 206-991-8
Risk: R36/38

Carborundum

extra pure, fine powder, extra fine about 300 grit

SLR



packaging	product code
500 g Plastic jar	C/3093/53

CAS: 409-21-2
HS-Nr: 28492000
EINECS: 206-991-8
Risk: R36/38

Carborundum

extra pure, powder, coarse, about 24 grit

SLR



packaging	product code
500 g Plastic jar	C/3090/53

CAS: 409-21-2
HS-Nr: 28492000
EINECS: 206-991-8
Risk: R36/38

Carborundum pure

packaging	product code
500 g Plastic jar	C/3091/53

CAS: 409-21-2
HS-Nr: 28492000
EINECS: 206-991-8
Risk: R36/38

Carboxymethyl cellulose

extra pure, low viscosity

SLR



packaging	product code
500 g Plastic jar	C/3100/53

CAS: 9004-32-4
Melting point: >300°C
HS-Nr: 39123100

Guaranteed analysis

At pH 20°C	6 to 8	Lead (Pb)	<10 ppm
Viscosity	29 to 70 cP		

Carmine pure

packaging	product code
5 g Glass packaging	C/3160/44

CAS: 1390-65-4
HS-Nr: 32030090
EINECS: 215-724-4
Safety: S24/25

Guaranteed analysis

IR Analysis	Conform
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Casein

extra pure, light white soluble

SLR



packaging	product code
500 g Plastic jar	C/3240/53

CAS: 9000-71-9
Melting point: 280 °C
HS-Nr: 35011090
EINECS: 232-555-1
Safety: S24/25

Guaranteed analysis

IR Analysis	Conform
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Castor oil pure

packaging	product code
2.5 L Glass bottle	C/3280/17

CAS: 8001-79-4
Density at 20°C: 0.96
Boiling point: 229°C
Boiling pressure: 760 mmHg
Melting point: -10°C
Flash point: 229°C
HS-Nr: 15153090
EINECS: 232-293-8
Safety: S24/25

Guaranteed analysis

IR Analysis	Conform
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Catechol

extra pure

SLR



packaging	product code
100 g Plastic Jar	C/3320/48
500 g Plastic Jar	C/3320/53

C₆H₆O₂
CAS: 120-80-9
MW: 110.11
Boiling point: 245°C
Boiling pressure: 760 mmHg
Melting point: 103 to 106°C
Flash point: 131°C
ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29072990
EINECS: 204-427-5
Risk: R21/22, R36/38
Safety: S22, S26, S37

Assay (GC): >99%



Catecholsulfonphthalein

pure, Metal indicator

packaging	product code
5 g Glass Jar	C/3360/44
C ₁₉ H ₁₄ O ₇ S CAS: 115-41-3 MW: 386.36 Boiling pressure: 760 mmHg	
HS-Nr: 32041200 EINECS: 204-088-3 Safety: S24/25	
Guaranteed analysis IR Analysis Conform	

Cation standard mixed concentrate

for Ion pair chromatography (for check column)

packaging	product code
100 mL Plastic bottle	J/4554/05
HS-Nr: 38220000 Manufactured to a tolerance of $\pm 1\%$. 100mL, to make 1000mL consisting of: 3ppm Li ⁺ , 5ppm Na ⁺ , 5ppm NH ₄ ⁺ , 10ppm K ⁺	

Cedarwood oil

For microscopy, thickened

packaging	product code
100 mL Glass bottle	C/3440/05
CAS: 8000-27-9 Density at 20°C: 0.95 Flash point: 110°C	
HS-Nr: 38059000 Safety: S24/25	
Guaranteed analysis IR Analysis Conform	

Cedarwood oil

For microscopy, natural

packaging	product code
500 mL Glass bottle	C/3400/08
CAS: 8000-27-9 Density at 20°C: 0.95 Flash point: 110°C	
HS-Nr: 38059000 Safety: S24/25	
Guaranteed analysis IR Analysis Conform	

Cellosolve® See 2-Ethoxyethanol, page 98



Cellosolve® acetate See 2-Ethoxyethyl acetate, page 98



Cerium standard metal solution 1000 ppm

for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCE22Y
500 mL Plastic bottle	SPPLCE22X
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45	

Manufactured to a tolerance of $\pm 0.5\%$.
 All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
 See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cerium standard metal solution 10 000 ppm

for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCE23Y
500 mL Plastic bottle	SPPLCE23X

Density at 20°C: 1
 Risk: R34
 Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
 All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
 See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cerium(III) nitrate

extra pure, low in other rare earths

SLR

packaging	product code
100 g Plastic jar	C/3780/48

Ce(NO₃)₃·6H₂O
 CAS: 10294-41-4
 MW: 434.23
 ADR/RID: 5.1/II
 UN: 1477

HS-Nr: 28461000
 EINECS: 233-297-2
 Risk: R8, R36
 Safety: S17, S26, S39



Assay: >99%

Guaranteed analysis
 Sulfate (SO₄) <0.05% Other rare earths <1%
 Total chloride (Cl) <0.02%

Cerium(IV) oxide

extra pure, low in other rare earths

SLR

packaging	product code
100 g Plastic jar	C/3680/48

CeO₂
 CAS: 1306-38-3
 MW: 172.12
 Density at 20°C: 7.13

Melting point: 2600°C
 HS-Nr: 28461000
 EINECS: 215-150-4
 Safety: S24/25

Cerium(IV) sulfate tetrahydrate

extra pure, low in other rare earths

SLR

packaging	product code
100 g Plastic jar	C/3720/48

Ce(SO₄)₂·4H₂O
 CAS: 10294-42-5
 MW: 404.29
 ADR/RID: 5.1(8)/II
 UN: 3085

HS-Nr: 28461000
 EINECS: 237-029-5
 Risk: R8, R35
 Safety: S17, S26, S36/37/39, S45



Assay: 98 to 102%

Guaranteed analysis
 Total chloride (Cl) <0.01% Other rare earths <1%

Cerium(IV) sulfate solution 0.1, (0.1N) NEW SPEC. Eur.Ph. , BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/3000/15
2.5 L Glass bottle	J/3000/17

Density at 20°C: 1.06
 ADR/RID: 8/II
 UN: 2796
 HS-Nr: 28461000

Manufactured to a tolerance of $\pm 0.2\%$.
 See the full range of Standard Volumetric solution page 266.

Cesium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLCS22Y
500 mL Plastic bottle	SPPLCS22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cesium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLCS23Y
500 mL Plastic bottle	SPPLCS23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cesium chloride for analysis

Certified AR



packaging	product code
25 g Plastic jar	C/0680/46
100 g Plastic jar	C/0680/48
250 g Plastic jar	C/0680/50
1 kg Plastic jar	C/0680/60

CsCl₂
CAS: 7647-17-8
MW: 168.36
Density at 20°C: 3.98
Boiling point: 1290°C
Boiling pressure: 760 mmHg

Melting point: 646°C
HS-Nr: 28273985
EINECS: 231-600-2
Risk: R68
Safety: S36/37



Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Sodium (Na)	<100 ppm
Calcium (Ca)	<10 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm
Potassium (K)	<20 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<0.002 %	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm		

Lot analysis on the label.

Cesium chloride extra pure

SLR



packaging	product code
25 g Plastic Jar	C/0640/46
100 g Plastic Jar	C/0640/48

CsCl₂
CAS: 7647-17-8
MW: 168.36
Density at 20°C: 3.98
Boiling point: 1290°C
Boiling pressure: 760 mmHg

Melting point: 646°C
HS-Nr: 28273985
EINECS: 231-600-2
Risk: R68
Safety: S36/37



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Potassium (K)	<100 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

Cetyl trimethylammonium bromide for Ion pair chromatography

Certified



packaging	product code
25 g Plastic Jar	C/3961/46

C₁₉H₄₂BrN
CAS: 57-09-0
MW: 364.46
Melting point: 250 °C
ADR/RID: 9/III

UN: 3077
HS-Nr: 29239000
EINECS: 200-311-3
Risk: R22, R36/37/38, R50
Safety: S26, S37/39, S61



Assay: >98%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
254 nm (sol. aqu. 0.25 M) <0.05 A.U.

Cetyl trimethylammonium bromide for analysis

Certified AR



packaging	product code
100 g Plastic Jar	C/3962/48
500 g Plastic Jar	C/3962/53

C₁₉H₄₂BrN
CAS: 57-09-0
MW: 364.46
Melting point: 250 °C
ADR/RID: 9/III

UN: 3077
HS-Nr: 29239000
EINECS: 200-311-3
Risk: R22, R36/37/38, R50
Safety: S26, S37/39, S61



Assay: >99%

Guaranteed analysis

Loss on drying	<1%	Magnesium (Mg)	<5 ppm
Aluminium (Al)	<1 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<2 ppm
Barium (Ba)	<2 ppm	Potassium (K)	<10 ppm
Cadmium (Cd)	<2 ppm	Sodium (Na)	<20 ppm
Calcium (Ca)	<20 ppm	Titanium (Ti)	<2 ppm
Chromium (Cr)	<2 ppm	Total phosphorus (P)	<10 ppm
Cobalt (Co)	<2 ppm	Total silicon (Si)	<20 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<200 ppm
Iron (Fe)	<5 ppm	Vanadium (V)	<2 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<5 ppm
Lithium (Li)	<2 ppm		

Lot analysis on the label.

Cetyl trimethylammonium bromide pure

packaging	product code
500 g Plastic Jar	C/3960/53
25 kg Fibre Keg	C/3960/70

C₁₉H₄₂BrN
CAS: 57-09-0
MW: 364.46
Melting point: 250 °C
ADR/RID: 9/III

UN: 3077
HS-Nr: 29239000
EINECS: 200-311-3
Risk: R22, R36/37/38, R50
Safety: S26, S37/39, S61



Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Charcoal

extra pure, lump, wood

SLR



packaging	product code
1 kg Plastic jar	C/4020/60

CAS: 16291-96-6
ADR/RID: 4.2/III
UN: 1361

HS-Nr: 38021000
EINECS: 231-153-3

Charcoal

pure, powder wood

packaging	product code
1 kg Plastic jar	C/4010/60

CAS: 16291-96-6
ADR/RID: 4.2/III
UN: 1361

HS-Nr: 38021000
EINECS: 231-153-3

Charcoal

pure, animal, granular for filters

packaging	product code
1 kg Plastic jar	C/4000/60

CAS: 16291-96-6
HS-Nr: 38021000
EINECS: 231-153-3

Charcoal

pure, powder, animal

packaging	product code
1 kg Plastic jar	C/3990/60

CAS: 16291-96-6
HS-Nr: 38021000
EINECS: 231-153-3

Charcoal

pure, decolourising powder, activated

packaging	product code
1 kg Plastic jar	C/4040/60
5 kg Plastic drum	C/4040/65

CAS: 16291-96-6
ADR/RID: 4.2/III
UN: 1362

HS-Nr: 38021000
EINECS: 231-153-3

Charcoal

pure, activated for gas adsorption, 10-18 mesh, granular

packaging	product code
500 g Plastic jar	C/4120/53
1 kg Plastic jar	C/4120/60

CAS: 16291-96-6
ADR/RID: 4.2/III
UN: 1361

HS-Nr: 38021000
EINECS: 231-153-3

Charcoal

pure, activated, acid washed

packaging	product code
250 g Plastic jar	C/4080/50

CAS: 16291-96-6
HS-Nr: 38021000
EINECS: 231-153-3

Chemical binder spillage treatment

pure

packaging	product code
500 g Plastic jar	S/7435/53

HS-Nr: 38220000

Chemical Oxygen Demand

See Ficodox, page 103



Chlorate standard 1000 ppm

For Ion chromatography in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPASCL0392Y
500 mL Plastic bottle	SPASCL0392X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.3%.

Chloral hydrate

extra pure

SLR, Eur.Ph., BP



packaging	product code
500 g Plastic jar	C/4280/53
10 kg Plastic screw top Keg	C/4280/68

C₂H₃Cl₃O₂
CAS: 302-17-0
MW: 165.41
Density at 20°C: 1.91
Boiling point: 97°C
Boiling pressure: 760 mmHg
Melting point: 57°C

ADR/RID: 6.1/II
UN: 2811
HS-Nr: 29121990
EINECS: 206-117-5
Risk: R25, R36/38
Safety: S25, S45

Assay: >99%

Guaranteed analysis

Residue after ignition <0.1% Total chloride (Cl) <0.01%



Chloramine-T Sodium salt

extra pure

SLR, Eur.Ph., BP



packaging	product code
250 g Plastic jar	C/4320/50
500 g Plastic jar	C/4320/53

C₇H₇CINNaO₂S.3H₂O
CAS: 7080-50-4
MW: 281.69
Melting point: 170-177°C
Flash point: 92°C
ADR/RID: 8/III

UN: 3263
HS-Nr: 29350000
EINECS: 204-854-7
Risk: R22, R31, R34, R42
Safety: S7, S22, S26, S36/37/39, S45

Assay: >98%

Guaranteed analysis

Sodium chloride <1.5%



Chloramphenicol

extra pure

SLR



packaging	product code
50 g Plastic jar	C/4322/47

C₁₁H₁₂Cl₂N₂O₅
CAS: 56-75-7
MW: 323.14
Melting point: 149 to 153°C

HS-Nr: 29414000
EINECS: 200-287-4
Risk: R45
Safety: S53, S45

Assay: >99%



Chloride standard 100 ppm*For Ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASCL91Y
500 mL Plastic bottle	SPASCL91X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.**Chloride standard solution 1000 ppm (1 mg/ml)***for Ion pair chromatography, Ready-to-use*

packaging	product code
100 mL Plastic bottle	J/4546/05

Density at 20°C: 1

HS-Nr: 38220000

Guaranteed analysis

Value between 0.99 to 1.01

Manufactured to a tolerance of $\pm 1\%$.**Chloride standard 1000 ppm***For Ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASCL92Y
500 mL Plastic bottle	SPASCL92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.**Chloride Colour Reagent**
pure

packaging	product code
4.5 L Plastic bottle	C/4345/20

Density at 20°C: 0.992 to 1.002

ADR/RID: 3(6.1)/II

UN: 2929

HS-Nr: 38220000

Risk: R10, R24/25

Safety: S2, S13, S28A



Made up to 1L with Analytical Reagent water.

Chlorite standard 1000 ppm*For Ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASCL0292Y
500 mL Plastic bottle	SPASCL0292X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.**Chloroacetic acid**
*for analysis***Certified AR**

packaging	product code
500 g Glass packaging	C/4400/53

ClCH₂COOH

CAS: 79-11-8

MW: 94.5

Density at 20°C: 1.58

Boiling point: 189°C

Boiling pressure: 760 mmHg

Melting point: 61 to 63°C

Flash point: 126°C

ADR/RID: 6.1(8)/II

UN: 1751

HS-Nr: 29154000

EINECS: 201-178-4

Risk: R25, R34, R50

Safety: S23, S37, S45, S61



Assay: >99.5%

Guaranteed analysis

Calcium (Ca) <20 ppm	Potassium (K) <10 ppm
Chromium (Cr) <1 ppm	Sodium (Na) <100 ppm
Copper (Cu) <5 ppm	Total nitrogen (N) <50 ppm
Iron (Fe) <5 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <10 ppm
Magnesium (Mg) <5 ppm	Total sulphur (S) <50 ppm
Nickel (Ni) <5 ppm	Zinc (Zn) <5 ppm

Typical analysis

Aluminium (Al) <1 ppm	Manganese (Mn) <1 ppm
Arsenic (As) <2 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba) <1 ppm	Silver (Ag) <1 ppm
Cadmium (Cd) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm

Chloroacetic acid
*extra pure***SLR**

packaging	product code
250 g Glass packaging	C/4360/50
500 g Glass packaging	C/4360/53

ClCH₂COOH

CAS: 79-11-8

MW: 94.5

Density at 20°C: 1.58

Boiling point: 189°C

Boiling pressure: 760 mmHg

Melting point: 61 to 63°C

Flash point: 126°C

ADR/RID: 6.1(8)/II

UN: 1751

HS-Nr: 29154000

EINECS: 201-178-4

Risk: R25, R34, R50

Safety: S23, S37, S45, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <500 ppm
Copper (Cu) <20 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <20 ppm	Total silicon (Si) <50 ppm
Lead (Pb) <20 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <20 ppm
Potassium (K) <50 ppm	

4-Chloroaniline
*extra pure***SLR**

packaging	product code
100 g Plastic jar	C/4600/48

C₆H₄ClN

CAS: 106-47-8

MW: 127.57

Boiling point: 232°C

Boiling pressure: 760 mmHg

Melting point: 68 to 72°C

Flash point: >188°C

ADR/RID: 6.1/II

UN: 2018

HS-Nr: 29214210

EINECS: 203-401-0

Risk: R45, R23/24/25, R43,

R50/53

Safety: S53, S45, S60, S61



Assay (GC): >99%

Chloroauric (III) acid
*extra pure***SLR**

packaging	product code
1 g Glass Tube	C/4640/43

HAuCl₄·xH₂O

CAS: 27988-77-8

MW: 339.78

ADR/RID: 8/II

UN: 3260

HS-Nr: 28433000

EINECS: 240-948-4

Risk: R22, R34

Safety: S26, S36/37/39, S45



Assay: >49%

*The price charged for this item is subject to alteration and will be that ruling at time of despatch.***4-Chlorobenzenamine** See 4-Chloroaniline, page 64**Save money!**
Order 4 bottles in a box

Chlorobenzene for analysis

Certified AR



packaging	product code
1 L Glass bottle	C/4681/15
2.5 L Glass bottle	C/4681/17
2.5 L Coated Glass Bottle	C/4681/PB17

C_6H_5Cl
CAS: 108-90-7
MW: 112.56
Density at 20°C: 1.11
Boiling point: 131°C
Boiling pressure: 760 mmHg
Melting point: -45°C
Flash point: 29°C
ADR/RID: 3/III
UN: 1134
HS-Nr: 29036100
EINECS: 203-628-5
Risk: R10, R20, R51/53
Safety: S24/25, S61



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Potassium (K)	<0.02 ppm
Colour	<10 APHA	Sodium (Na)	<0.5 ppm
Residue after evaporation	<10 ppm	Total phosphorus (P)	<0.5 ppm
Water	<0.05%	Total silicon (Si)	<0.02 ppm
Calcium (Ca)	<0.2 ppm	Total sulphur (S)	<0.5 ppm
Copper (Cu)	<0.02 ppm	Zinc (Zn)	<0.1 ppm
Iron (Fe)	<0.2 ppm	Benzene	<0.02 %
Lead (Pb)	<0.05 ppm	O-Dichlorobenzene	<0.01 %
Magnesium (Mg)	<0.2 ppm	P-Dichlorobenzene	<0.02 %

Typical analysis

Aluminium (Al)	<0.02 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

Chlorobenzene extra pure

SLR



packaging	product code
2.5 L Glass bottle	C/4680/17
2.5 L Coated Glass Bottle	C/4680/PB17
25 L Metal drum	C/4680/25

C_6H_5Cl
CAS: 108-90-7
MW: 112.56
Density at 20°C: 1.11
Boiling point: 131°C
Boiling pressure: 760 mmHg
Melting point: -45°C
Flash point: 29°C
ADR/RID: 3/III
UN: 1134
HS-Nr: 29036100
EINECS: 203-628-5
Risk: R10, R20, R51/53
Safety: S24/25, S61



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<100 ppm	Sodium (Na)	<5 ppm
Water	<0.5%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm		

see page 279 for suitable Tap & accessories.

1-Chlorobutane for HPLC



packaging	product code
2.5 L Glass bottle	C/4756/17

C_4H_9Cl
CAS: 109-69-3
MW: 92.57
Density at 20°C: 0.88
Boiling point: 77 to 78°C
Boiling pressure: 760 mmHg
Melting point: -123°C
Flash point: -12°C
ADR/RID: 3/II
UN: 1127
HS-Nr: 29031980
EINECS: 203-696-6
Risk: R11
Safety: S9, S16, S29



Assay (GC): >99.7%

Guaranteed analysis

Acidity / Alkalinity	<0.0003 meq/g	Water	<0.02%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

230 nm	<0.2 A.U.	260 nm	<0.005 A.U.
240 nm	<0.05 A.U.	270 nm	<0.005 A.U.
250 nm	<0.01 A.U.		

Lot analysis on the label including an absorbance curve.
Filtered to 0.2 µm.

1-Chlorobutane extra pure

SLR



packaging	product code
100 mL Glass bottle	C/4750/05

C_4H_9Cl
CAS: 109-69-3
MW: 92.57
Density at 20°C: 0.88
Boiling point: 77 to 78°C
Boiling pressure: 760 mmHg
Melting point: -123°C
Flash point: -12°C
ADR/RID: 3/II
UN: 1127
HS-Nr: 29031980
EINECS: 203-696-6
Risk: R11
Safety: S9, S16, S29



Assay: >98%

Guaranteed analysis

Residue after evaporation <50 ppm

2-Chlorobutane extra pure

SLR



packaging	product code
100 mL Glass bottle	C/4759/05

C_4H_9Cl
CAS: 78-86-4
MW: 92.57
Density at 20°C: 0.87
Boiling point: 68 to 70°C
Boiling pressure: 760 mmHg
Melting point: -140°C
Flash point: -15°C
ADR/RID: 3/II
UN: 1127
HS-Nr: 29031980
EINECS: 201-151-7
Risk: R11
Safety: S9, S16, S29



Assay (GC): >95%

4-Chloro-m-cresol pure

packaging	product code
500 g Glass packaging	C/4760/53

C_7H_7ClO
CAS: 59-50-7
MW: 142.59
Boiling point: 235°C
Boiling pressure: 760 mmHg
Melting point: 63 to 65°C
Flash point: 118°C
ADR/RID: 6.1/II
UN: 3437
HS-Nr: 29081090
EINECS: 200-431-6
Risk: R21/22, R41, R43, R50
Safety: S26, S36/37/39, S61



Assay: >98%

2-Chloroethanol pure

packaging	product code
500 mL Coated Glass Bottle	C/4880/PB08

C_2H_5ClO
CAS: 107-07-3
MW: 80.52
Density at 20°C: 1.2
Boiling point: 129°C
Boiling pressure: 760 mmHg
Melting point: -63°C
Flash point: 55°C
ADR/RID: 3(6.1)/I
UN: 1135
HS-Nr: 29055010
EINECS: 203-459-7
Risk: R26/27/28, R51/53
Safety: S7/9, S28A, S45, S61



Assay (GC): >99%

Chloroform stabilized with amylene for HPLC

Certified



packaging	product code
1 L Glass bottle	C/4966/15
2.5 L Glass bottle	C/4966/17
2.5 L Coated Glass Bottle	C/4966/PB17
200 L Stainless steel drum	C/4966/275S

CHCl₃
CAS: 67-66-3
MW: 119.38
Density at 20°C: 1.48
Boiling point: 61°C
Boiling pressure: 760 mmHg
Melting point: -63°C

ADR/RID: 6.1/III
UN: 1888
HS-Nr: 29031300
EINECS: 200-663-8
Risk: R22, R38, R40, R48/20/22
Safety: S36/37

Xn

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g Water <0.05%
Residue after evaporation <5 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

250 nm <0.5 A.U. 270 nm <0.01 A.U.
260 nm <0.075 A.U. 280 nm <0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Chloroform stabilized with amylene for Gel Permeation Chromatography (GPC)

Certified



packaging	product code
2.5 L Coated Glass Bottle	C/4970/PB17

CHCl₃
CAS: 67-66-3
MW: 119.38
Density at 20°C: 1.48
Boiling point: 61°C
Boiling pressure: 760 mmHg
Melting point: -63°C

ADR/RID: 6.1/III
UN: 1888
HS-Nr: 29031300
EINECS: 200-663-8
Risk: R22, R38, R40, R48/20/22
Safety: S36/37

Xn

Guaranteed analysis

Colour <5 APHA Water <0.02%
Residue after evaporation <5 ppm

Chloroform stabilized with amylene for trace metal analysis

Primar



packaging	product code
2.5 L Glass bottle	C/4961/17

CHCl₃
CAS: 67-66-3
MW: 119.38
Density at 20°C: 1.48
Boiling point: 61°C
Boiling pressure: 760 mmHg
Melting point: -63°C

ADR/RID: 6.1/III
UN: 1888
HS-Nr: 38220000
EINECS: 200-663-8
Risk: R22, R38, R40, R48/20/22
Safety: S36/37

Xn

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g	Manganese (Mn) <0.005 ppm
Colour <5 APHA	Molybdenum (Mo) <0.005 ppm
Residue after evaporation <2 ppm	Nickel (Ni) <0.005 ppm
Substances darkened	Potassium (K) <0.05 ppm
by (H ₂ SO ₄) <5 APHA	Silver (Ag) <0.005 ppm
Water <0.01%	Sodium (Na) <0.2 ppm
Aluminium (Al) <0.02 ppm	Strontium (Sr) <0.005 ppm
Barium (Ba) <0.005 ppm	Titanium (Ti) <0.005 ppm
Cadmium (Cd) <0.005 ppm	Total phosphorus (P) <0.02 ppm
Calcium (Ca) <0.05 ppm	Total silicon (Si) <0.02 ppm
Chlorine <100 ppm	Total sulphur (S) <0.1 ppm
Chromium (Cr) <0.005 ppm	Vanadium (V) <0.005 ppm
Cobalt (Co) <0.005 ppm	Zinc (Zn) <0.01 ppm
Copper (Cu) <0.01 ppm	Carbon tetrachloride <0.002%
Iron (Fe) <0.05 ppm	Dichloromethane <0.002%
Lead (Pb) <0.005 ppm	Tetrachloroethylene <0.002%
Lithium (Li) <0.005 ppm	Trichloroethylene <0.002%
Magnesium (Mg) <0.02 ppm	

Chloroform stabilized with amylene for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	C/4963/15
2.5 L Glass bottle	C/4963/17

CHCl₃
CAS: 67-66-3
MW: 119.38
Density at 20°C: 1.48
Boiling point: 61°C
Boiling pressure: 760 mmHg
Melting point: -63°C

ADR/RID: 6.1/III
UN: 1888
HS-Nr: 29031300
EINECS: 200-663-8
Risk: R22, R38, R40, R48/20/22
Safety: S36/37

Xn

Assay (GC): >99.8%

Guaranteed analysis

GC (ECD) Analysis Conform Residue after evaporation <2 ppm
GC (FID) Analysis Conform Water <0.05%
GC (NPD) analysis Conform

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile:

(1) 50°C for 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Chloroform stabilized with amylene extra dry, for synthesis



packaging	product code
1 L Glass bottle	C/4962/15
2.5 L Glass bottle	C/4962/17

CHCl₃
CAS: 67-66-3
MW: 119.38
Density at 20°C: 1.48
Boiling point: 61°C
Boiling pressure: 760 mmHg
Melting point: -63°C

ADR/RID: 6.1/III
UN: 1888
HS-Nr: 29031300
EINECS: 200-663-8
Risk: R22, R38, R40, R48/20/22
Safety: S36/37

Xn

Assay (GC): >99.8%

Guaranteed analysis

Residue after evaporation <2 ppm Water <0.01%

Chloroform stabilized with amylene for analysis

Certified AR



packaging	product code
1 L Glass bottle	C/4960/15
1 L Coated Glass Bottle	C/4960/PB15
2.5 L Glass bottle	C/4960/17
2.5 L Coated Glass Bottle	C/4960/PB17
25 L Metal drum	C/4960/25
200 L Metal drum	C/4960/27

CHCl₃
CAS: 67-66-3
MW: 119.38
Density at 20°C: 1.48
Boiling point: 61°C
Boiling pressure: 760 mmHg
Melting point: -63°C

ADR/RID: 6.1/III
UN: 1888
HS-Nr: 29031300
EINECS: 200-663-8
Risk: R22, R38, R40, R48/20/22
Safety: S36/37

Xn

Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0005 meq/g	Water <0.02%
Colour <5 APHA	Calcium (Ca) <0.1 ppm
Residue after evaporation <5 ppm	Chlorine <5 ppm
Substances darkened	Copper (Cu) <0.02 ppm
by (H ₂ SO ₄) <5 APHA	Iron (Fe) <0.1 ppm
Use with dithizone Conform	Lead (Pb) <0.02 ppm

Magnesium (Mg)	<0.05 ppm	Total sulphur (S)	<0.5 ppm
Potassium (K)	<0.1 ppm	Zinc (Zn)	<0.05 ppm
Sodium (Na)	<0.2 ppm	Carbon tetrachloride	<0.005 %
Total phosphorus (P)	<0.1 ppm	Dichloromethane	<0.005 %
Total silicon (Si)	<0.05 ppm	Tetrachloroethylene	<0.005 %

Typical analysis

Aluminium (Al)	<0.05 ppm	Molybdenum (Mo)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Selenium (Se)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Manganese (Mn)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Suitable for use with dithizone.

Lot analysis on the label.

Stabilised with 100 ppm amylène.

see page 279 for suitable Tap & accessories.

2-Chlorophenol extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	C/5040/PB08

C ₆ H ₅ ClO	Flash point: 85°C
CAS: 95-57-8	ADR/RID: 6.1/III
MW: 128.56	UN: 2021
Density at 20°C: 1.26	HS-Nr: 29081000
Boiling point: 173 to 175°C	EINECS: 202-433-2
Boiling pressure: 760 mmHg	Risk: R20/21/22, R51/53
Melting point: 8°C	Safety: S28A, S61



Guaranteed analysis

IR Analysis Conform

N-Chloro-p-toluenesulfonamide sodium salt

See Chloramine-T, Sodium salt, page 63



Chloroform extra pure

SLR



packaging	product code
500 mL Glass bottle	C/4920/08
1 L Glass bottle	C/4920/15
2.5 L Glass bottle	C/4920/17
2.5 L Coated Glass Bottle	C/4920/PB17
5 L Metal can	C/4920/21
25 L Metal drum	C/4920/25
200 L Metal drum	C/4920/27

CHCl ₃	ADR/RID: 6.1/III
CAS: 67-66-3	UN: 1888
MW: 119.38	HS-Nr: 29031300
Density at 20°C: 1.48	EINECS: 200-663-8
Boiling point: 61°C	Risk: R22, R38, R40, R48/20/22
Boiling pressure: 760 mmHg	Safety: S36/37
Melting point: -63°C	



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Lead (Pb)	<5 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<20 ppm	Potassium (K)	<2 ppm
Substances darkened by (H ₂ SO ₄)	<20 APHA	Sodium (Na)	<5 ppm
Water	<0.1%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Chlorotrimethylsilane for gas chromatography

packaging	product code
250 g Glass bottle	T/3520/50

C ₃ H ₉ ClSi	Flash point: -18°C
CAS: 75-77-4	ADR/RID: 3(8)/II
MW: 108.65	UN: 1298
Density at 20°C: 0.85 to 0.86	HS-Nr: 29310000
Boiling point: 57°C	EINECS: 200-900-5
Boiling pressure: 760 mmHg	Risk: R11, R14, R21, R34
Melting point: -58°C	Safety: S16, S26, S36/37/39, S45



Assay (GC): >98%

Cholesterol extra pure

SLR



packaging	product code
100 g Plastic jar	C/5360/48

C ₂₇ H ₄₆ O	Melting point: 147 to 150°C
CAS: 57-88-5	Flash point: 250°C
MW: 386.67	HS-Nr: 38220000
Density at 20°C: 1.06	EINECS: 200-353-2
Boiling point: 360°C	Safety: S22, S24/25
Boiling pressure: 760 mmHg	

Guaranteed analysis

Residue after ignition	<0.1%	-38.5°
Specific rotation (α 20/D)	+40.5° to	Water
		<0.5%

6-Chloro-3-hydroxytoluene

See 4-Chloro-m-cresol, page 65



Chromic Acid pure, Mix detergent

packaging	product code
1 L Coated Glass Bottle	J/3500/PC15

ADR/RID: 8/II	Risk: R8, R35, R43
UN: 1830	Safety: S26, S30, S36/37/39, S45
HS-Nr: 38220000	



2-Chloro-2-methyl propane extra pure

SLR



packaging	product code
500 mL Glass bottle	C/4990/08

C ₄ H ₉ Cl	Flash point: -18°C
CAS: 507-20-0	ADR/RID: 3/II
MW: 92.57	UN: 1127
Density at 20°C: 0.85	HS-Nr: 29031980
Boiling point: 51 to 52°C	EINECS: 208-066-4
Boiling pressure: 760 mmHg	Risk: R11
Melting point: -25°C	Safety: S9, S16, S33



Guaranteed analysis

IR Analysis Conform

Chromium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8015/05
500 mL Plastic bottle	J/8015/08

ADR/RID: 8(6.1)/III	Risk: R49, R34, R43
UN: 2922	Safety: S23, S26, S36, S45
HS-Nr: 28342980	



Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 1000 ppm
 for ICP, solution HNO_3 1M

packaging	product code
500 mL Plastic bottle	J/8246/08
ADR/RID: 8(6.1)/III UN: 2922 HS-Nr: 38220000	Risk: R49, R34, R43 Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 10 000 ppm
 for ICP, solution HNO_3 1M

packaging	product code
100 mL Plastic bottle	J/8245/05
ADR/RID: 8(6.1)/III UN: 2922 HS-Nr: 28342980	Risk: R49, R34, R43 Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 1000 ppm
 for ICP solution in HNO_3 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCR22Y
250 mL Plastic bottle	SPPLCR22T
500 mL Plastic bottle	SPPLCR22X

Density at 20°C: 1.02
Risk: R36/38
Safety: S26



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 1000 ppm
 for ICP solution in HCL 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCR12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 1000 ppm
 for ICP solution in H_2O , NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCR92X
Density at 20°C: 1 Risk: R20/21/22 Safety: S36/37	



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 10 000 ppm
 for ICP solution in HNO_3 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCR23Y
500 mL Plastic bottle	SPPLCR23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 10 000 ppm
 for ICP solution in HCL 5%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCR13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 10 000 ppm
 for ICP solution in H_2O , NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCR93X

Density at 20°C: 1
Risk: R20/21/22
Safety: S36/37



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Chromium standard metal solution 1000 ppm
 for ICP-MS solution in HNO_3 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLCR22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Chromium(III) chloride hexahydrate extra pure

SLR

SpeciFied
LR

packaging	product code
100 g Glass packaging	C/5480/48
500 g Glass packaging	C/5480/53

CrCl₃·6H₂O
CAS: 10060-12-5
MW: 266.45
Density at 20°C: 1.76
Melting point: 83°C

HS-Nr: 28273985
EINECS: 233-038-3
Risk: R22, R36/37/38
Safety: S24/25



Assay: >95%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<200 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<200 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<100 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<200 ppm		

Chromium(III) nitrate monohydrate extra pure

SLR

SpeciFied
LR

packaging	product code
500 g Glass packaging	C/5560/53

Cr(NO₃)₃·9H₂O
CAS: 7789-02-8
MW: 400.15
Boiling pressure: 760 mmHg
Melting point: 60°C
ADR/RID: 5.1/III

UN: 2720
HS-Nr: 28342980
EINECS: 236-921-1
Risk: R8, R22
Safety: S17



Assay: >95%

Guaranteed analysis

Iron (Fe)	<500 ppm	Total chloride (Cl)	<0.003%
Sulfate (SO ₄)	<0.01%		

Chromium(III) oxide, green extra pure

SLR

SpeciFied
LR

packaging	product code
500 g Plastic jar	C/5680/53

Cr₂O₃
CAS: 1308-38-9
MW: 151.99
Density at 20°C: 5.21
Boiling point: 4000°C

Boiling pressure: 760 mmHg
Melting point: 2435°C
HS-Nr: 38220000
EINECS: 215-160-9
Safety: S24/25

Chromium(VI) oxide extra pure

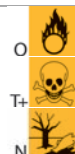
SLR

SpeciFied
LR

packaging	product code
250 g Plastic jar	C/5880/50
500 g Plastic jar	C/5880/53

CrO₃
CAS: 1333-82-0
MW: 99.99
Density at 20°C: 2.7
Melting point: 196°C
ADR/RID: 6.1(8)/II
UN: 1463

HS-Nr: 28191000
EINECS: 215-607-8
Risk: R45, R46, R9, R24/25, R26, R35, R42/43, R48/23, R50/53, R62
Safety: S53, S45, S60, S61



Assay: >99%

Guaranteed analysis

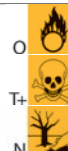
Calcium (Ca)	<100 ppm	Sodium (Na)	<2000 ppm
Copper (Cu)	<200 ppm	Total chloride (Cl)	<0.14%
Iron (Fe)	<200 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<100 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<140 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<200 ppm	Zinc (Zn)	<140 ppm

Chromium(VI) oxide Technical

packaging	product code
500 g Glass packaging	C/5840/53
2.5 kg Plastic jar	C/5840/62

CrO₃
CAS: 1333-82-0
MW: 99.99
Density at 20°C: 2.7
Melting point: 196°C
ADR/RID: 6.1(8)/II
UN: 1463

HS-Nr: 28191000
EINECS: 215-607-8
Risk: R45, R46, R9, R24/25, R26, R35, R42/43, R48/23, R50/53, R62
Safety: S53, S45, S60, S61



Assay: >95%

Chromium(III) potassium sulfate dodecahydrate extra pure

SLR

SpeciFied
LR

packaging	product code
500 g Plastic Jar	C/5720/53

KCr(SO₄)₂·12H₂O
CAS: 7788-99-0
MW: 499.39
Density at 20°C: 1.83

Melting point: 89°C
HS-Nr: 28333000
Risk: R36/38
Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<1000 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<200 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<200 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<100 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm

Chromotropic acid sodium salt dihydrate extra pure, for formaldehyde determination

SLR

SpeciFied
LR

packaging	product code
25 g Plastic jar	C/6002/46

C₁₀H₆O₈S₂Na₂·2H₂O
CAS: 5808-22-0
MW: 400.28
HS-Nr: 29089910

EINECS: 204-972-9
Risk: R49, R8, R25, R35, R43, R50/53

Guaranteed analysis

IR Analysis Conform

Cinnamaldehyde extra pure

SLR

SpeciFied
LR

packaging	product code
500 mL Glass bottle	C/6098/08

C₉H₈O
CAS: 104-55-2
MW: 132.16

HS-Nr: 29122900
EINECS: 203-213-9
Risk: R36/37/38



Assay: >98%

Citric acid, anhydrous extra pure

SLR, Eur.Ph., BP, USP

SpeciFied
LR

packaging	product code
500 g Plastic jar	C/6240/53

C₆H₈O₇
CAS: 77-92-9
MW: 192.13
Melting point: 153 to 154.5°C
Flash point: 100°C

HS-Nr: 29181400
EINECS: 201-069-1
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Citric acid monohydrate
HPLC for electrochemical detection

Certified



packaging	product code
500 g Plastic jar	C/6230/53

C₆H₈O₇·H₂O
 CAS: 5949-29-1
 MW: 210.14
 Density at 20°C: 1.54
 Melting point: 135 to 152°C

Flash point: 173.9°C
 HS-Nr: 29181400
 Risk: R36/37/38, R41
 Safety: S26, S37/39

Xi

Assay: >99.8%

Guaranteed analysis

Electrochemical test Conform Lead (Pb) <1 ppm
 Iron (Fe) <1 ppm Total chloride (Cl) <0.0005%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.5 A.U. 270 nm <0.1 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Citric acid monohydrate
For foodstuffs analysis, low in lead

packaging	product code
500 g Plastic jar	C/6180/53

C₆H₈O₇·H₂O
 CAS: 5949-29-1
 MW: 210.14
 Density at 20°C: 1.54
 Melting point: 135 to 152°C

Flash point: 173.9°C
 HS-Nr: 29181400
 Risk: R36/37/38, R41
 Safety: S26, S37/39

Xi

Assay: >99.8%

Guaranteed analysis

Lead (Pb) <0.5 ppm

Citric acid monohydrate
for analysis

Certified AR ,Eur.Ph.,USP



packaging	product code
500 g Plastic jar	C/6200/53
1 kg Plastic jar	C/6200/60
2.5 kg Plastic jar	C/6200/62
5 kg Plastic drum	C/6200/65
25 kg Fibre Keg	C/6200/70

C₆H₈O₇·H₂O
 CAS: 5949-29-1
 MW: 210.14
 Density at 20°C: 1.54
 Melting point: 135 to 152°C

Flash point: 173.9°C
 HS-Nr: 29181400
 Risk: R36/37/38, R41
 Safety: S26, S37/39

Xi

Assay: >99.8%

Guaranteed analysis

Carbonisable substance (standard Ph.Eur USP) Conform
 Calcium (Ca) <50 ppm
 Copper (Cu) <0.5 ppm
 Iron (Fe) <1 ppm
 Lead (Pb) <1 ppm
 Magnesium (Mg) <5 ppm
 Oxalate (C₂O₄) <0.005 %
 Potassium (K) <10 ppm
 Sodium (Na) <10 ppm
 Total chloride (Cl) <0.0005 %
 Total phosphorus (P) <10 ppm
 Total silicon (Si) <5 ppm
 Total sulphur (S) <50 ppm
 Zinc (Zn) <1 ppm

Typical analysis

Aluminium (Al) <2 ppm
 Arsenic (As) <2 ppm
 Barium (Ba) <1 ppm
 Cadmium (Cd) <1 ppm
 Chromium (Cr) <1 ppm
 Cobalt (Co) <1 ppm
 Lithium (Li) <1 ppm
 Manganese (Mn) <1 ppm
 Molybdenum (Mo) <1 ppm
 Nickel (Ni) <1 ppm
 Silver (Ag) <1 ppm
 Strontium (Sr) <2 ppm
 Titanium (Ti) <1 ppm
 Vanadium (V) <1 ppm

Lot analysis on the label.

Citric acid monohydrate
extra pure, granular

SLR



packaging	product code
500 g Plastic jar	C/6160/53
1 kg Plastic jar	C/6160/60
2.5 kg Plastic jar	C/6160/62
5 kg Plastic drum	C/6160/65
25 kg Fibre Keg	C/6160/70

C₆H₈O₇·H₂O

CAS: 5949-29-1

MW: 210.14

Density at 20°C: 1.54

Melting point: 135 to 152°C

Flash point: 173.9°C

HS-Nr: 29181400

Risk: R36/37/38, R41

Safety: S26, S37/39

Xi

Assay: >99.5%

Guaranteed analysis

Calcium (Ca) <200 ppm
 Copper (Cu) <5 ppm
 Iron (Fe) <5 ppm
 Lead (Pb) <5 ppm
 Magnesium (Mg) <50 ppm
 Potassium (K) <100 ppm
 Sodium (Na) <100 ppm
 Total chloride (Cl) <0.005%
 Total phosphorus (P) <50 ppm
 Total silicon (Si) <50 ppm
 Total sulphur (S) <200 ppm
 Zinc (Zn) <10 ppm

Cleve's acid See 1-Naphthylamine-7-sulfonic acid, page 171


Clove oil
extra-pure

SLR

packaging	product code
100 mL Glass bottle	C/6280/05

CAS: 8000-34-8

HS-Nr: 38220000

Risk: R36/38

Guaranteed analysis

Density 20°C 1.041-1.054 Refractive index 1.528-1.537

Cobalt standard metal solution 1000 ppm
for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8020/05
500 mL Plastic bottle	J/8020/08

ADR/RID: 8/II

UN: 2031

HS-Nr: 28342910

Risk: R34

Safety: S23, S26, S36, S45

Xn

Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt standard metal solution 1000 ppm
for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8251/08

ADR/RID: 8/

UN: 2031

HS-Nr: 38220000

Risk: R34

Safety: S23, S26, S36, S45

Xn

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8250/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 28342910

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLC022Y
250 mL Plastic bottle	SPPLC022T
500 mL Plastic bottle	SPPLC022X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLC012X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLC023Y
500 mL Plastic bottle	SPPLC023X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLC022Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Cobalt extra pure, metal powder

SLR



packaging	product code
100 g Plastic jar	C/6360/48

Co
CAS: 7440-48-4
MW: 58.93
ADR/RID: 4.1/III
UN: 3089

HS-Nr: 81051010
EINECS: 231-158-0
Risk: R42/43
Safety: S22, S24, S37



Cobalt(II) acetate tetrahydrate pure

packaging	product code
250 g Plastic jar	C/6400/50

C₆H₆CoO₄·4H₂O
CAS: 6147-53-1
MW: 249.08
Melting point: 140°C
ADR/RID: 9/III

UN: 3077
HS-Nr: 29152900
Risk: R22, R40, R42/43, R50/53
Safety: S22, S24, S29, S36/37, S45, S61



Cobalt(II) chloride anhydrous extra pure

SLR



packaging	product code
100 g Plastic jar	C/6600/48

CoCl₂
CAS: 7646-79-9
MW: 129.84
Density at 20°C: 3.35
Boiling point: 1049°C
Boiling pressure: 760 mmHg
Melting point: 735°C

ADR/RID: 6.1/II
UN: 2923
HS-Nr: 28273930
EINECS: 231-589-4
Risk: R49, R22, R42/43, R50/53
Safety: S53, S22, S45, S60, S61



Cobalt(II) chloride hexahydrate for analysis

Certified AR



packaging	product code
100 g Plastic jar	C/6560/48
500 g Plastic jar	C/6560/53
1 kg Plastic jar	C/6560/60

CoCl₂·6H₂O
CAS: 7791-13-1
MW: 237.93
Melting point: 86°C
ADR/RID: 9/III

UN: 3077
HS-Nr: 28273930
Risk: R49, R22, R42/43, R50/53
Safety: S53, S22, S45, S60, S61



Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	4 to 6	Nickel (Ni)	<0.01%
Aluminium (Al)	<2 ppm	Potassium (K)	<20 ppm
Barium (Ba)	<2 ppm	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Sodium (Na)	<100 ppm
Calcium (Ca)	<20 ppm	Strontium (Sr)	<1 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Copper (Cu)	<5 ppm	Total nitrogen (N)	<50 ppm
Iron (Fe)	<20 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<20 ppm
Lithium (Li)	<1 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<0.001%	Zinc (Zn)	<20 ppm
Molybdenum (Mo)	<1 ppm		

Lot analysis on the label.

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Cobalt(II) chloride hexahydrate
extra pure

SLR



packaging	product code
100 g Plastic jar	C/6520/48
500 g Plastic jar	C/6520/53
1 kg Plastic jar	C/6520/60

CoCl₂·6H₂O UN: 3077
 CAS: 7791-13-1 HS-Nr: 38220000
 MW: 237.93 Risk: R49, R22, R42/43, R50/53
 Melting point: 86°C Safety: S53, S22, S45, S60, S61
 ADR/RID: 9/III



Assay: >98%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <500 ppm
Copper (Cu) <20 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <50 ppm	Total silicon (Si) <100 ppm
Lead (Pb) <50 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <100 ppm
Potassium (K) <50 ppm	

Cobalt(II) nitrate hexahydrate
for analysis

Certified AR



packaging	product code
100 g Plastic jar	C/6680/48
250 g Plastic jar	C/6680/50

Co(NO₃)₂·6H₂O UN: 1477
 CAS: 10026-22-9 HS-Nr: 28342910
 MW: 291.03 Risk: R8, R22, R36/37/38, R40, R42/43
 Density at 20°C: 1.88 Safety: S17, S22, S26, S36/37/39, S45
 Melting point: 55°C
 ADR/RID: 5.1/II



Assay: 99 to 101%

Guaranteed analysis

Aluminium (Al) <2 ppm	Nickel (Ni) <0.01%
Ammonium (NH ₄) <0.05%	Potassium (K) <20 ppm
Barium (Ba) <2 ppm	Silver (Ag) <1 ppm
Cadmium (Cd) <1 ppm	Sodium (Na) <500 ppm
Calcium (Ca) <20 ppm	Strontium (Sr) <1 ppm
Chromium (Cr) <1 ppm	Titanium (Ti) <1 ppm
Copper (Cu) <10 ppm	Total chloride (Cl) <0.001%
Iron (Fe) <20 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <10 ppm	Total silicon (Si) <20 ppm
Lithium (Li) <1 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <100 ppm	Vanadium (V) <1 ppm
Manganese (Mn) <0.002%	Zinc (Zn) <20 ppm

Lot analysis on the label.

Cobalt(II) nitrate hexahydrate
extra pure

SLR



packaging	product code
100 g Plastic jar	C/6640/48
500 g Plastic jar	C/6640/53

Co(NO₃)₂·6H₂O UN: 1477
 CAS: 10026-22-9 HS-Nr: 28342910
 MW: 291.03 Risk: R8, R22, R36/37/38, R40, R42/43
 Density at 20°C: 1.88 Safety: S17, S22, S26, S36/37/39, S45
 Melting point: 55°C
 ADR/RID: 5.1/II



Assay: >98%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <1000 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <50 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <50 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <200 ppm	Total sulphur (S) <500 ppm
Potassium (K) <100 ppm	Zinc (Zn) <100 ppm

Cobalt(II) sulfate
extra pure

SLR



packaging	product code
250 g Plastic jar	C/6840/50
500 g Plastic jar	C/6840/53

CoSO₄·7H₂O ADR/RID: 6.1/II
 CAS: 10026-24-1 UN: 3288
 MW: 281.09 HS-Nr: 28332930
 Density at 20°C: 2.03 Risk: R49, R22, R42/43, R50/53
 Melting point: 98°C Safety: S53, S22, S45, S60, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <500 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <50 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <50 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <50 ppm	Zinc (Zn) <100 ppm
Potassium (K) <500 ppm	

2,4,6-Collidine
pure

packaging	product code
100 mL Coated Glass Bottle	C/6940/PB05

C₈H₁₁N
 CAS: 108-75-8
 MW: 121.18
 Density at 20°C: 0.91
 Boiling point: 171 to 172°C
 Boiling pressure: 760 mmHg
 Melting point: -43°C

Flash point: 57°C
 ADR/RID: 3(6.1)/III
 UN: 1992
 HS-Nr: 29333990
 EINECS: 203-613-3
 Risk: R22



Assay (GC): >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)
 Refractive index 1.4 to 1.6

Collodion
pure

packaging	product code
500 mL Glass bottle	C/7000/08

Density at 20°C: 0.75 to 0.85
 ADR/RID: 3/II
 UN: 2059

HS-Nr: 39122011
 Risk: R12, R18, R19
 Safety: S9, S16, S29, S33



Congo red C.I. 22120

pure, pH and adsorption indicator

packaging	product code
25 g Glass packaging	C/7020/46

C₃₂H₂₂N₆Na₂O₆S₂
 CAS: 573-58-0
 MW: 696.65
 Boiling pressure: 760 mmHg
 Melting point: >360°C

HS-Nr: 38220000
 EINECS: 209-358-4
 Risk: R45, R63
 Safety: S53, S45

Copper standard metal solution 1000 ppm
for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8256/08

ADR/RID: 8/II
 UN: 2031
 HS-Nr: 38220000

Risk: R34
 Safety: S23, S26, S36, S45



Manufactured to a tolerance of ± 0.5%.
 All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
 See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 1000 ppm for AAS, solution HNO_3 1M

packaging	product code
100 mL Plastic bottle	J/8025/05
500 mL Plastic bottle	J/8025/08
1 L Plastic bottle	J/8025/15

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 10 000 ppm for ICP, solution HNO_3 1M

packaging	product code
100 mL Plastic bottle	J/8255/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 1000 ppm for ICP solution in HNO_3 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCU22Y
250 mL Plastic bottle	SPPLCU22T
500 mL Plastic bottle	SPPLCU22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCU12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 10 000 ppm for ICP solution in HNO_3 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLCU23Y
500 mL Plastic bottle	SPPLCU23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLCU13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper standard metal solution 1000 ppm for ICP-MS solution in HNO_3 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLCU22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Copper extra pure, metal powder

SLR

packaging	product code
500 g Glass packaging	C/7120/53

Cu
CAS: 7440-50-8
MW: 63.54
Density at 20°C: 8.92
Boiling point: 2595°C
Boiling pressure: 760 mmHg
Melting point: 1083°C
HS-Nr: 74061000
EINECS: 231-159-6
Safety: S24/25

Copper extra pure, metal granular

SLR

packaging	product code
250 g Plastic jar	C/7170/50

Cu
CAS: 7440-50-8
MW: 63.54
Density at 20°C: 8.92
Boiling point: 2595°C
Boiling pressure: 760 mmHg
Melting point: 1083°C
HS-Nr: 74061000
EINECS: 231-159-6
Safety: S24/25

Copper extra pure, metal turning

SLR

packaging	product code
500 g Plastic jar	C/7160/53
1 kg Plastic jar	C/7160/60

Cu
CAS: 7440-50-8
MW: 63.54
Density at 20°C: 8.92
Boiling point: 2595°C
Boiling pressure: 760 mmHg
Melting point: 1083°C
HS-Nr: 74061000
EINECS: 231-159-6
Safety: S24/25

Copper

Technical, metal foil (about 0.1 mm)

packaging	product code
250 g Cardboard tube	C/7050/50
500 g Cardboard tube	C/7050/53

Cu
 CAS: 7440-50-8
 MW: 63.54
 Density at 20°C: 8.92
 Boiling point: 2595°C
 Boiling pressure: 760 mmHg
 Melting point: 1083°C
 HS-Nr: 38220000
 EINECS: 231-159-6
 Safety: S24/25

Copper

pure, metal wire about 0.91 mm(20 swg)

packaging	product code
500 g Box	C/7210/53

Cu
 CAS: 7440-50-8
 MW: 63.54
 Density at 20°C: 8.92
 Boiling point: 2595°C
 Boiling pressure: 760 mmHg
 Melting point: 1083°C
 HS-Nr: 74061000
 EINECS: 231-159-6
 Safety: S24/25

Copper(II) acetate monohydrate

extra pure

SLR

packaging	product code
250 g Plastic Jar	C/7760/50
500 g Plastic Jar	C/7760/53

$C_4H_6CuO_4 \cdot H_2O$
 CAS: 142-71-2
 MW: 199.65
 Melting point: 115°C
 Assay: >98%
 Guaranteed analysis
 Calcium (Ca) <200 ppm
 Iron (Fe) <100 ppm
 Lead (Pb) <200 ppm
 Magnesium (Mg) <50 ppm
 Potassium (K) <50 ppm
 Sodium (Na) <200 ppm
 Total chloride (Cl) <0.005%
 Total phosphorus (P) <100 ppm
 Total silicon (Si) <100 ppm
 Total sulphur (S) <200 ppm
 Zinc (Zn) <100 ppm
 HS-Nr: 29152900
 EINECS: 205-553-3
 Risk: R22
 Xn

Copper(II) bromide

extra pure

SLR

packaging	product code
250 g Glass packaging	C/7840/50

$CuBr_2$
 CAS: 7789-45-9
 MW: 233.36
 Density at 20°C: 4.77
 Boiling point: 900°C
 Boiling pressure: 760 mmHg
 Melting point: 498°C
 HS-Nr: 28275900
 EINECS: 232-167-2
 Risk: R36/37/38
 Safety: S24/25
 Xi

Copper(II) carbonate basic

extra pure

SLR

packaging	product code
250 g Plastic jar	C/7880/50
500 g Plastic jar	C/7880/53
25 kg Fibre Keg	C/7880/70

$CuCO_3 \cdot Cu(OH)_2$
 CAS: 12069-69-1
 MW: 221.1
 Density at 20°C: 4
 Assay: 54 to 56%
 Guaranteed analysis
 Iron (Fe) <2000 ppm
 Sulfate (SO_4) <0.2%
 Melting point: 200 °C
 HS-Nr: 28369911
 EINECS: 235-113-6
 Risk: R22
 Xn

Copper(II) chloride dihydrate

for analysis

Certified AR

packaging	product code
100 g Plastic jar	C/7960/48
1 kg Plastic jar	C/7960/60

$CuCl_2 \cdot 2H_2O$
 CAS: 10125-13-0
 MW: 170.48
 Density at 20°C: 2.54
 Boiling pressure: 760 mmHg
 Melting point: 100 °C
 ADR/RID: 8/III
 UN: 2802
 HS-Nr: 28273985
 Risk: R22, R36/37/38
 Safety: S26, S37/39
 Xn

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	3 to 4	Sodium (Na)	<20 ppm
Calcium (Ca)	<20 ppm	Total nitrogen (N)	<50 ppm
Iron (Fe)	<20 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<50 ppm
Potassium (K)	<5 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Lithium (Li)	<2 ppm
Arsenic (As)	<2 ppm	Manganese (Mn)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<2 ppm	Titanium (Ti)	<2 ppm
Chromium (Cr)	<2 ppm	Vanadium (V)	<2 ppm
Cobalt (Co)	<2 ppm		

Lot analysis on the label.

Copper(II) chloride dihydrate

extra pure

SLR

packaging	product code
250 g Plastic jar	C/7920/50
500 g Plastic jar	C/7920/53
5 kg Plastic drum	C/7920/65

$CuCl_2 \cdot 2H_2O$
 CAS: 10125-13-0
 MW: 170.48
 Density at 20°C: 2.54
 Boiling pressure: 760 mmHg
 Melting point: 100 °C
 ADR/RID: 8/III
 UN: 2802
 HS-Nr: 28273985
 Risk: R22, R36/37/38
 Safety: S26, S37/39
 Xn

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<100 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<200 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<100 ppm

Copper(I) cyanide

pure

packaging	product code
500 g Plastic jar	C/8760/53

CuCN
 CAS: 544-92-3
 MW: 89.56
 Density at 20°C: 2.92
 Melting point: 474°C
 ADR/RID: 6.1/II
 UN: 1587
 HS-Nr: 28371900
 EINECS: 208-883-6
 Risk: R26/27/28, R32, R50/53
 Safety: S7, S28A, S29, S45, S60, S61
 T+
 N

Copper(I) iodide

extra pure

SLR

packaging	product code
100 g Glass packaging	C/8800/48

CuI
 CAS: 7681-65-4
 MW: 190.44
 Density at 20°C: 5.62
 Boiling point: 1290°C
 Boiling pressure: 760 mmHg
 Melting point: 605°C
 HS-Nr: 28276000
 EINECS: 231-674-6
 Risk: R36/37/38
 Safety: S24/25
 Xi

Copper(II) nitrate trihydrate

extra pure

SLR

SpeciFied	packaging	product code
	500 g Glass packaging	C/8080/53
Cu(NO ₃) ₂ ·3H ₂ O	UN: 1477	Xn 
CAS: 10031-43-3	HS-Nr: 28342930	
MW: 241.6	EINECS: 221-838-5	
Boiling pressure: 760 mmHg	Risk: R22, R36/38	
Melting point: 114°C	Safety: S26, S37/39	
ADR/RID: 5.1/II		
Assay: >95%		
Guaranteed analysis		
Calcium (Ca)	<200 ppm	Total chloride (Cl) <0.005%
Iron (Fe)	<100 ppm	Total phosphorus (P) <100 ppm
Lead (Pb)	<200 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S) <200 ppm
Potassium (K)	<50 ppm	Zinc (Zn) <100 ppm
Sodium (Na)	<200 ppm	

Copper(I) oxide

extra pure

SLR

SpeciFied	packaging	product code
	250 g Plastic jar	C/8840/50
Cu ₂ O	ADR/RID: 9/III	Xn 
CAS: 1317-39-1	UN: 3077	
MW: 143.08	HS-Nr: 28255000	
Boiling point: 1800°C	EINECS: 215-270-7	
Boiling pressure: 760 mmHg	Risk: R22, R50/53	
Melting point: 1232°C	Safety: S22, S60, S61	

Copper(II) oxide

Technical, powder

packaging	product code
500 g Glass packaging	C/8200/53
CuO	HS-Nr: 28255000
CAS: 1317-38-0	EINECS: 215-269-1
MW: 79.54	Risk: R22
Melting point: 1326°C	
Assay: >98%	

Copper(II) oxide

pure, wire form

packaging	product code
100 g Plastic jar	C/8320/48
500 g Plastic jar	C/8320/53
CuO	HS-Nr: 28255000
CAS: 1317-38-0	EINECS: 215-269-1
MW: 79.54	Risk: R22
Melting point: 1326°C	

Copper(II) sulfate anhydrous

extra pure

SLR

	packaging		product code
	250 g	Plastic jar	C/8600/50
	1 kg	Plastic jar	C/8600/60
CuSO ₄	UN: 3077		
CAS: 7758-98-7	HS-Nr: 28332500		
MW: 159.61	EINECS: 231-847-6		
Melting point: 200 °C	Risk: R22, R36/38, R50/53		
ADR/RID: 9/III	Safety: S22, S60, S61		
Assay: >98%			
Guaranteed analysis			
Iron (Fe)	<1000 ppm	Total chloride (Cl)	<0.01%
Lead (Pb)	<100 ppm		

Copper(II) sulfate pentahydrate

for analysis

Certified AR

CertiFied	packaging	product code
	250 g Plastic jar	C/8560/50
	500 g Plastic jar	C/8560/53
	1 kg Plastic jar	C/8560/60
	3 kg Plastic jar	C/8560/63
	5 kg Plastic jar	C/8560/65
	25 kg Plastic screw top Keg	C/8560/70
CuSO ₄ ·5H ₂ O	UN: 3077	Xn N 
CAS: 7758-99-8	HS-Nr: 28332500	
MW: 249.68	Risk: R22, R36/38, R50/53	
Melting point: 110 °C	Safety: S22, S60, S61	
ADR/RID: 9/III		
Assay: >99.5%		
Guaranteed analysis		
pH (aqueous solution 5%)	3.5 to 4	Sodium (Na) <20 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl) <0.001 %
Iron (Fe)	<20 ppm	Total nitrogen (N) <20 ppm
Lead (Pb)	<50 ppm	Total phosphorus (P) <20 ppm
Magnesium (Mg)	<5 ppm	Total silicon (Si) <20 ppm
Potassium (K)	<5 ppm	Zinc (Zn) <20 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Lithium (Li)	<2 ppm
Arsenic (As)	<2 ppm	Manganese (Mn)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<2 ppm	Titanium (Ti)	<2 ppm
Chromium (Cr)	<2 ppm	Vanadium (V)	<2 ppm
Cobalt (Co)	<2 ppm		

Lot analysis on the label.

Copper(II) sulfate pentahydrate

extra pure

SLR

packaging		product code	
250 g	Plastic jar	C/8520/50	
500 g	Plastic jar	C/8520/53	
1 kg	Plastic jar	C/8520/60	
3 kg	Plastic jar	C/8520/63	
5 kg	Plastic jar	C/8520/65	
CuSO ₄ ·5H ₂ O		UN: 3077	
CAS: 7758-99-8		HS-Nr: 28332500	
MW: 249.68		Risk: R22, R36/38, R50/53	
Melting point: 110 °C		Safety: S22, S60, S61	
ADR/RID: 9/III			
Assay: >98%			
Guaranteed analysis			
Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<100 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<200 ppm	Total phosphorus (P)	<100 ppm
Magnesium (Mg)	<50 ppm	Total silicon (Si)	<100 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<100 ppm

Copper(II) sulfate pentahydrate

Technical

packaging	product code
1 kg Plastic jar	C/8480/60
3 kg Plastic jar	C/8480/63
5 kg Plastic jar	C/8480/65
CuSO ₄ ·5H ₂ O	UN: 3077
CAS: 7758-99-8	HS-Nr: 28332500
MW: 249.68	Risk: R22, R36/38, R50/53
Melting point: 110 °C	Safety: S22, S60, S61
ADR/RID: 9/III	

Creatinine
pure

packaging	product code
25 g Plastic jar	C/7240/46
C ₄ H ₇ N ₃ O CAS: 60-27-5 MW: 113.12 Melting point: 255 °C	Flash point: +290°C HS-Nr: 29332990 EINECS: 200-466-7 Safety: S24/25

Assay: >98%

o-Cresol
pure

packaging	product code
500 mL Coated Glass Bottle	C/7320/PB08
C ₇ H ₈ O CAS: 95-48-7 MW: 108.14 Density at 20°C: 1.04 Boiling point: 191°C Boiling pressure: 760 mmHg Melting point: 30 to 32°C	Flash point: 81°C ADR/RID: 6.1(8)/II UN: 3455 HS-Nr: 29071200 EINECS: 202-423-8 Risk: R24/25, R34 Safety: S36/37/39, S45

**Guaranteed analysis**

Other impurities <2%

m-Cresol
pure

packaging	product code
500 mL Coated Glass Bottle	C/7360/PB08
2.5 L Coated Glass Bottle	C/7360/PB17
C ₇ H ₈ O CAS: 108-39-4 MW: 108.14 Density at 20°C: 1.033 to 1.035 Boiling point: 203°C Boiling pressure: 760 mmHg Melting point: 8 to 10°C	Flash point: 86°C ADR/RID: 6.1(8)/II UN: 2076 HS-Nr: 29071200 EINECS: 203-577-9 Risk: R24/25, R34 Safety: S36/37/39, S45



Assay (GC): >98%

Guaranteed analysis

Other isomers <2%

p-Cresol
extra pure

SLR

packaging	product code
500 g Coated Glass Bottle	C/7400/53
C ₇ H ₈ O CAS: 106-44-5 MW: 108.14 Density at 20°C: 1.03 Boiling point: 202°C Boiling pressure: 760 mmHg Melting point: 32 to 34°C	Flash point: 89°C ADR/RID: 6.1(8)/II UN: 3455 HS-Nr: 29071200 EINECS: 203-398-6 Risk: R24/25, R34 Safety: S36/37/39, S45



Assay (GC): >98%

Guaranteed analysis

Other isomers <2%

Cresol purple
pure, solution 0.04 %, pH indicator

packaging	product code
100 mL Glass bottle	C/7450L/05
CAS: 2303-01-7 HS-Nr: 29349099 EINECS: 218-960-6 Risk: R24/25, R34	

Cresol red
pure, solid, indicator grade

packaging	product code
5 g Glass packaging	C/7460/44
C ₂₁ H ₁₈ O ₅ S CAS: 1733-12-6 MW: 382.42 Melting point: 290 °C	HS-Nr: 29071200 EINECS: 217-064-2 Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Cresol red
pure, solution 0.02 % pH indicator

packaging	product code
500 mL Glass bottle	C/7460L/08
Density at 20°C: 0.95 Flash point: 32°C ADR/RID: 3/III UN: 1170	HS-Nr: 38220000 Risk: R10 Safety: S16, S24/25

o-Cresolphthaleindi-(methyliminodi-acetic acid)
pure, metal indicator

packaging	product code
5 g Glass packaging	C/7440/44
C ₃₂ H ₃₂ N ₂ O ₁₂ CAS: 2411-89-4 MW: 636.61 Melting point: 181 °C	HS-Nr: 38220000 EINECS: 219-318-8 Safety: S24/25

Guaranteed analysis

IR Analysis Conform

o-Cresolsulfonphthaleindi-(methyl-iminodiacetic acid) sodium salt
pure, Special reagent for metals (Xylenol orange)

packaging	product code
1 g Glass packaging	C/7480/43
5 g Glass packaging	C/7480/44
C ₃₁ H ₃₁ N ₇ NaO ₁₃ S CAS: 1611-35-4 MW: 694.65	Melting point: 222°C HS-Nr: 29349090 EINECS: 216-553-8

Guaranteed analysis

IR Analysis Conform

18-Crown-6-ether (1.4,7.10.13.16-hexaoxacyclooctadecane)
extra pure

SLR

packaging	product code
10 g Glass bottle	C/7551/45
C ₁₂ H ₂₄ O ₆ CAS: 17455-13-9 MW: 264.32 Melting point: 36 to 40°C Flash point: >110°C	HS-Nr: 29329030 EINECS: 241-473-5 Risk: R20/22, R36 Safety: S26, S39

**Guaranteed analysis**

IR Analysis Conform

Curcumin
pure, crystalline

packaging	product code
1 g Glass tube	C/8850/43
C ₂₁ H ₂₀ O ₆ CAS: 458-37-7 MW: 368.39 Melting point: 183°C	HS-Nr: 29145000 EINECS: 207-280-5 Safety: S24/25

2.5-Cyclohexadiene-1.4-dione

See p-Benzoquinone, page 39



Cyclohexane for HPLC

Certified



packaging	product code
1 L Glass bottle	C/8936/15
2.5 L Glass bottle	C/8936/17
2.5 L Coated Glass Bottle	C/8936/PB17
200 L Metal drum	C/8936/27
200 L Stainless steel drum	C/8936/27SS

C_6H_{12}
 CAS: 110-82-7
 MW: 84.16
 Density at 20°C: 0.77
 Boiling point: 81°C
 Boiling pressure: 760 mmHg
 Melting point: 6.5°C
 Flash point: -18°C

ADR/RID: 3/II
 UN: 1145
 HS-Nr: 29021100
 EINECS: 203-806-2
 Risk: R11, R38, R50/53, R65, R67
 Safety: S9, S16, S25, S33, S60, S61, S62



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g Water <0.01%
 Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.3 A.U. 230 nm <0.02 A.U.
 210 nm <0.2 A.U. 240 nm <0.005 A.U.
 220 nm <0.1 A.U. 250 nm <0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Cyclohexane

for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	C/8933/15
2.5 L Glass bottle	C/8933/17

C_6H_{12}
 CAS: 110-82-7
 MW: 84.16
 Density at 20°C: 0.77
 Boiling point: 81°C
 Boiling pressure: 760 mmHg
 Melting point: 6.5°C
 Flash point: -18°C

ADR/RID: 3/II
 UN: 1145
 HS-Nr: 29021100
 EINECS: 203-806-2
 Risk: R11, R38, R50/53, R65, R67
 Safety: S9, S16, S25, S33, S60, S61, S62



Assay (GC): >99.8%

Guaranteed analysis

GC (ECD) Analysis Conform Residue after evaporation <2 ppm
 GC (FID) Analysis Conform Water <0.02%
 GC (NPD) analysis Conform

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile: (1) 50°C, 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Cyclohexane for analysis

Certified AR



packaging	product code
1 L Glass bottle	C/8921/15
2.5 L Glass bottle	C/8921/17
2.5 L Coated Glass Bottle	C/8921/PB17
5 L Metal can	C/8921/21
25 L Metal drum	C/8921/25
200 L Metal drum	C/8921/27

C_6H_{12}
 CAS: 110-82-7
 MW: 84.16
 Density at 20°C: 0.77
 Boiling point: 81°C
 Boiling pressure: 760 mmHg
 Melting point: 6.5°C
 Flash point: -18°C

ADR/RID: 3/II
 UN: 1145
 HS-Nr: 29021100
 EINECS: 203-806-2
 Risk: R11, R38, R50/53, R65, R67
 Safety: S9, S16, S25, S33, S60, S61, S62



Assay (GC): >99.8%

Guaranteed analysis

Colour <10 APHA Magnesium (Mg) <0.1 ppm
 Residue after evaporation <10 ppm Potassium (K) <0.2 ppm
 Substances darkened <10 ppm Sodium (Na) <1 ppm
 by (H₂SO₄) <20 APHA Total phosphorus (P) <0.1 ppm
 Water <0.01% Total silicon (Si) <0.1 ppm
 Calcium (Ca) <0.5 ppm Zinc (Zn) <0.2 ppm
 Copper (Cu) <0.02 ppm Benzene <0.005 %
 Iron (Fe) <0.2 ppm Cyclohexene <0.005 %
 Lead (Pb) <0.05 ppm

Typical analysis

Aluminium (Al) <0.1 ppm Manganese (Mn) <0.02 ppm
 Barium (Ba) <0.02 ppm Molybdenum (Mo) <0.02 ppm
 Cadmium (Cd) <0.05 ppm Nickel (Ni) <0.05 ppm
 Chromium (Cr) <0.02 ppm Strontium (Sr) <0.02 ppm
 Cobalt (Co) <0.02 ppm Titanium (Ti) <0.02 ppm
 Lithium (Li) <0.02 ppm Vanadium (V) <0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Cyclohexane extra pure

SLR



packaging	product code
2.5 L Glass bottle	C/8920/17
2.5 L Coated Glass Bottle	C/8920/PB17
5 L Metal can	C/8920/21
25 L Metal drum	C/8920/25

C_6H_{12}
 CAS: 110-82-7
 MW: 84.16
 Density at 20°C: 0.77
 Boiling point: 81°C
 Boiling pressure: 760 mmHg
 Melting point: 6.5°C
 Flash point: -18°C

ADR/RID: 3/II
 UN: 1145
 HS-Nr: 29021100
 EINECS: 203-806-2
 Risk: R11, R38, R50/53, R65, R67
 Safety: S9, S16, S25, S33, S60, S61, S62



Assay (GC): >99%

Guaranteed analysis

Colour <20 APHA Magnesium (Mg) <1 ppm
 Residue after evaporation <50 ppm Potassium (K) <2 ppm
 Water <0.05% Sodium (Na) <5 ppm
 Calcium (Ca) <2 ppm Total phosphorus (P) <2 ppm
 Copper (Cu) <2 ppm Total silicon (Si) <2 ppm
 Iron (Fe) <5 ppm Zinc (Zn) <2 ppm
 Lead (Pb) <5 ppm

see page 279 for suitable Tap & accessories.

Fisher Chemical packaging

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for a cleaner and safer world!



Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



Cyclohexanol
pure

packaging	product code
500 mL Coated Glass Bottle	C/9000/PB08
2.5 L Coated Glass Bottle	C/9000/PB17

C₆H₁₂O
CAS: 108-93-0
MW: 100.16
Density at 20°C: 0.96
Boiling point: 161°C
Boiling pressure: 760 mmHg
Melting point: 23°C
Flash point: 67°C
HS-Nr: 29061200
EINECS: 203-630-6
Risk: R20/22, R37/38
Safety: S24/25



Assay (GC): >98%

Guaranteed analysis

Residue after evaporation <0.01%

Cyclohexanone
for analysis

Certified AR



packaging	product code
500 mL Coated Glass Bottle	C/9050/PB08
2.5 L Coated Glass Bottle	C/9050/PB17

C₆H₁₀O
CAS: 108-94-1
MW: 98.15
Density at 20°C: 0.95
Boiling point: 155°C
Boiling pressure: 760 mmHg
Melting point: -47°C
Flash point: 46°C
ADR/RID: 3/III
UN: 1915
HS-Nr: 29142200
EINECS: 203-631-1
Risk: R10, R20
Safety: S25



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity <0.003 meq/g	Lead (Pb) <0.1 ppm
Colour <10 APHA	Total phosphorus (P) <2 ppm
Residue after evaporation <0.02%	Total sulphur (S) <5 ppm
Water <0.2%	Cyclohexane <0.01%
Copper (Cu) <0.05 ppm	Cyclohexanol <0.2%
Iron (Fe) <0.5 ppm	

Lot analysis on the label.

Cyclohexanone
extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	C/9040/PB08
2.5 L Coated Glass Bottle	C/9040/PB17
5 L Metal can	C/9040/21
25 L Metal drum	C/9040/25

C₆H₁₀O
CAS: 108-94-1
MW: 98.15
Density at 20°C: 0.95
Boiling point: 155°C
Boiling pressure: 760 mmHg
Melting point: -47°C
Flash point: 46°C
ADR/RID: 3/III
UN: 1915
HS-Nr: 29142200
EINECS: 203-631-1
Risk: R10, R20
Safety: S25



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.03 meq/g	Magnesium (Mg) <1 ppm
Colour <20 APHA	Potassium (K) <2 ppm
Residue after evaporation <0.05%	Sodium (Na) <50 ppm
Calcium (Ca) <5 ppm	Total phosphorus (P) <10 ppm
Copper (Cu) <1 ppm	Total silicon (Si) <1 ppm
Iron (Fe) <2 ppm	Total sulphur (S) <20 ppm
Lead (Pb) <1 ppm	Zinc (Zn) <1 ppm

see page 279 for suitable Tap & accessories.

Cyclohexene
extra pure

SLR



packaging	product code
500 mL Glass bottle	C/9080/08
2.5 L Glass bottle	C/9080/17

C₆H₁₀
CAS: 110-83-8
MW: 82.15
Density at 20°C: 0.81
Boiling point: 83°C
Boiling pressure: 760 mmHg
Melting point: -104°C
Flash point: -20°C
ADR/RID: 3/II
UN: 2256
HS-Nr: 29021980
EINECS: 203-807-8
Risk: R11, R21/22, R65
Safety: S16, S36/37



Assay (GC): >99%

L-Cysteine
pure

packaging	product code
25 g Plastic jar	C/9150/46

C₃H₇NO₂S
CAS: 52-90-4
MW: 121.16
Melting point: 220 °C
HS-Nr: 29309010
EINECS: 200-158-2
Risk: R22, R36/37/38
Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Residue after ignition <0.1%	Iron (Fe) <10 ppm
Specific rotation (α 20/D) +6.5° to +8°	Lead (Pb) <10 ppm

L-Cysteine hydrochloride monohydrate
pure

packaging	product code
100 g Plastic jar	C/9152/48

C₃H₇NO₂S.HCl.H₂O
CAS: 52-89-1
MW: 175.63
HS-Nr: 29309010
EINECS: 200-157-7
Safety: S24/25

Assay: >98.5%

Guaranteed analysis

Residue after ignition <0.1%	Iron (Fe) <30 ppm
Specific rotation (α 20/D) +5.5° to +7°	Lead (Pb) <10 ppm
Ammonium (NH ₄) <0.03%	Sulfate (SO ₄) <0.02%
Arsenic (As) <1 ppm	

L-Cystine
pure

packaging	product code
25 g Plastic jar	C/9160/46

C₆H₁₂N₂O₄S₂
CAS: 56-89-3
MW: 240.29
Melting point: 260-261°C
HS-Nr: 29309010
EINECS: 200-296-3
Safety: S24/25

Assay: >99%

Guaranteed analysis

Residue after ignition <0.5%	Iron (Fe) <20 ppm
Specific rotation (α 20/D) <-210°	Lead (Pb) <10 ppm
Water <0.001%	

Dansyl chloride
extra pure

SLR



packaging	product code
5 g Plastic jar	D/0008/44

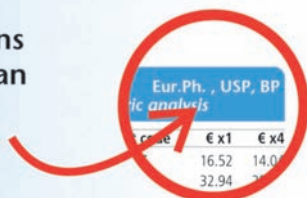
C₁₂H₁₂ClNO₂S
CAS: 605-65-2
MW: 269.75
Boiling pressure: 760 mmHg
Melting point: 71 to 74°C
ADR/RID: 8/II
UN: 3261
HS-Nr: 38220000
EINECS: 210-092-6
Risk: R36/37/38
Safety: S24/25



Assay: >99%

The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266



Decahydronaphthalene

Technical

packaging	product code
2.5 L Glass bottle	D/0050/17
$C_{10}H_{18}$ CAS: 91-17-8 MW: 138.25 Density at 20°C: 0.89 Boiling point: 187°C Boiling pressure: 760 mmHg Melting point: -31°C Assay (GC): >98%	Flash point: 57°C ADR/RID: 3/III UN: 1147 HS-Nr: 29021980 EINECS: 202-046-9 Risk: R36/37/38 Safety: S23, S24/25



n-Decane

Technical

packaging	product code
100 mL Glass bottle	D/0020/05
500 mL Glass bottle	D/0020/08
$C_{10}H_{22}$ CAS: 124-18-5 MW: 142.29 Density at 20°C: 0.728 to 0.73 Boiling point: 174°C Boiling pressure: 760 mmHg Melting point: -30°C Assay (GC): >98%	Flash point: 46°C ADR/RID: 3/III UN: 2247 HS-Nr: 29011000 EINECS: 204-686-4 Risk: R10, R65, R66 Safety: S16, S23, S62



1-Decanesulfonic acid sodium salt

for ion pair chromatography with electrochemical detection

Certified

packaging	product code
5 g Glass packaging	D/0035/44
 $C_{10}H_{21}NaO_3S$ CAS: 13419-61-9 MW: 244.31 Melting point: >300°C Assay: >98% Guaranteed analysis Electrochemical test Conform Absorbance specification Max. Absorbance (1cm cell v HPLC water) 254 nm (sol. aqu. 0.005 M) . <0.05 A.U. Lot analysis on the label. EC Specification: Tested by HPLC-EC to ensure low electrochemical response. Detector - ESA Coulochem II Mode-Oxidative Electrode graphite	HS-Nr: 29041000 EINECS: 236-525-9 Safety: S24/25

1-Decanesulfonic acid sodium salt

for ion pair chromatography

Certified

packaging	product code
25 g Glass packaging	D/0030/46
 $C_{10}H_{21}NaO_3S$ CAS: 13419-61-9 MW: 244.31 Melting point: >300°C Assay: >98% Absorbance specification Max. Absorbance (1cm cell v HPLC water) 254 nm (sol. aqu. 0.005 M) . <0.05 A.U. Lot analysis on the label.	HS-Nr: 29041000 EINECS: 236-525-9 Safety: S24/25

Dekalin

pure

packaging	product code
2.5 L Glass bottle	D/0052/17
$C_{10}H_{18}$ CAS: 91-17-8 MW: 138.25 Density at 20°C: 0.89 Boiling point: 187°C Boiling pressure: 760 mmHg Melting point: -31°C Assay (GC): >98%	Flash point: 57°C ADR/RID: 3/III UN: 1147 HS-Nr: 29021980 EINECS: 202-046-9 Risk: R36/37/38 Safety: S23, S24/25



Devarda's alloy

pure, Silylation reagent

packaging	product code
250 g Plastic jar	D/0100/50
CAS: 8049-11-4 HS-Nr: 74032900 Risk: R10, R36/37/38	

Dextran 150

pure, M.W. 100.000-200.000

packaging	product code
100 g Plastic jar	D/0122/48
CAS: 9004-54-0 HS-Nr: 39139000 EINECS: 232-677-5 Safety: S24/25	

Dextran 70

pure, M.W. 60.000-80.000

packaging	product code
100 g Plastic jar	D/0124/48
CAS: 9004-54-0 HS-Nr: 39139000 EINECS: 232-677-5 Safety: S24/25	

Guaranteed analysis

IR Analysis Conform

Dextrin

Technical

packaging	product code
100 g Plastic jar	D/0130/48
CAS: 9004-53-9 HS-Nr: 35051010 EINECS: 232-675-4 Safety: S24/25	

Guaranteed analysis

IR Analysis Conform

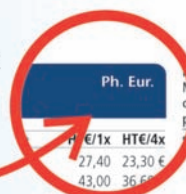
Conforming to the IR spectrum of reference.

Dextrose See D(+)-Glucose anhydrous, page 108



Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia

Read more on page 191



Diacetone alcohol
extra pure

SLR



packaging	product code
500 mL Glass bottle	D/0150/08

C₆H₁₂O₂
CAS: 123-42-2
MW: 116.16
Density at 20°C: 0.936 to 0.942
Boiling point: 166°C
Boiling pressure: 760 mmHg
Melting point: -42.8°C

Flash point: 58°C
ADR/RID: 3/III
UN: 1148
HS-Nr: 29144100
EINECS: 204-626-7
Risk: R36
Safety: S24/25

**Guaranteed analysis**

Residue after evaporation <200 ppm Water <0.2%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

Refractive index <1.425

Diacetyl
extra pure

SLR



packaging	product code
100 mL Glass bottle	D/0250/05

C₄H₆O₂
CAS: 431-03-8
MW: 86.09
Density at 20°C: 0.99
Boiling point: 88°C
Boiling pressure: 760 mmHg
Melting point: -4 to 2°C

Flash point: 7°C
ADR/RID: 3/II
UN: 2346
HS-Nr: 29141900
EINECS: 207-069-8
Risk: R11, R20/21/22, R36/38
Safety: S16, S26, S36/37/39



Assay (GC): >98%

N,N'-Diallyltartardiamide
pure

packaging	product code
25 g Glass bottle	D/0310/46

C₃H₇NSO₂·HCl·H₂O
CAS: 28843-34-7
MW: 228.25

HS-Nr: 29241900
Risk: R11

Guaranteed analysis

IR Analysis Conform

1.2-Diaminoethane anhydrous
extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	D/0370/PB08
2.5 L Coated Glass Bottle	D/0370/PB17

C₂H₈N₂
CAS: 107-15-3
MW: 60.1
Density at 20°C: <0.897
Boiling point: 117 to 118°C
Boiling pressure: 760 mmHg
Melting point: 11°C

Flash point: 34°C
ADR/RID: 3(8)/II
UN: 1604
HS-Nr: 29212100
EINECS: 203-468-6
Risk: R10, R21/22, R34, R42/43
Safety: S23, S26, S36/37/39, S45



Assay: >98%

1.2-Di(2-aminoethoxy)ethane-N,N,N,N-tetraacetic acid
pure

packaging	product code
25 g Plastic Jar	D/0755/46

C₁₄H₂₄N₂O₁₀
CAS: 67-42-5
MW: 380.35
Melting point: 240 to 245°C

HS-Nr: 29224980
EINECS: 200-651-2
Safety: S24/25

Assay: >98%

1.6-Diaminohexane
extra pure

SLR



packaging	product code
25 g Glass packaging	D/0760/46

C₆H₁₆N₂
CAS: 124-09-4
MW: 116.21
Boiling point: 204 to 205°C
Boiling pressure: 760 mmHg
Melting point: 38 to 41°C
Flash point: 81°C

ADR/RID: 8/III
UN: 2280
HS-Nr: 29212200
EINECS: 204-679-6
Risk: R21/22, R34, R37
Safety: S22, S26, S36/37/39, S45



Assay: 99 to 101%

1.6-Diaminohexane
pure, solution 5% in water

packaging	product code
250 mL Coated Glass Bottle	D/0765/PB07

Density at 20°C: 0.9944 to 0.9951

ADR/RID: 8/III

UN: 3267

HS-Nr: 29212200

**L(+)-2.6-Diaminohexanoic acid hydrochloride**

See L-Lysine monohydrochloride, page 150

**3.7-Diamino-5-phenylphenazinium chloride**

See Phenosafranine C.I. 50200, page 196

**Diastase***pure, from malt, mixed alpha and beta amylase*

packaging	product code
100 g Plastic jar	D/0800/48

CAS: 9000-92-4
HS-Nr: 35079000
EINECS: 232-567-7

Risk: R42
Safety: S22, S24, S36/37

**Guaranteed analysis**

Activity <4 EU/mg Sugar reducer Conform

1.2-Dibromoethane
extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	D/1250/PB08

C₂H₄Br₂
CAS: 106-93-4
MW: 187.88
Density at 20°C: 2.17
Boiling point: 131 to 132°C
Boiling pressure: 760 mmHg
Melting point: 9 to 10°C
Flash point: >104°C

ADR/RID: 6.1/I
UN: 1605
HS-Nr: 29033100
EINECS: 203-444-5
Risk: R45, R23/24/25, R36/37/38, R51/53
Safety: S53, S45, S61



Assay (GC): >98%

Guaranteed analysis

Residue after evaporation <200 ppm

5',5''-Dibromophenolsulfonphthalein

See Bromophenol red, page 43

**3',3''-Dibromothymolsulfonephthalein**

See Bromothymol blue, page 44



Di-n-butylamine for HPLC

Certified



packaging	product code
250 mL Coated Glass Bottle	D/1338/PB07

$C_8H_{19}N$
CAS: 111-92-2
MW: 129.25
Density at 20°C: 0.76
Boiling point: 159°C
Boiling pressure: 760 mmHg
Melting point: -62°C
Flash point: 39°C

ADR/RID: 3(8)/II
UN: 2248
HS-Nr: 29211990
EINECS: 203-921-8
Risk: R10, R20/21/22, R34
Safety: S23, S26, S28A,
S36/37/39, S45



Assay (GC): >99%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
254 nm (sol. aqu. 0.02 M) <0.01 A.U.

Lot analysis on the label.
Filtered to 0.2 µm.

Di-n-butylamine pure

packaging	product code
500 mL Coated Glass Bottle	D/1340/PB08

$C_8H_{19}N$
CAS: 111-92-2
MW: 129.25
Density at 20°C: 0.76
Boiling point: 159°C
Boiling pressure: 760 mmHg
Melting point: -62°C
Flash point: 39°C

ADR/RID: 3(8)/II
UN: 2248
HS-Nr: 29211990
EINECS: 203-921-8
Risk: R10, R20/21/22, R34
Safety: S23, S26, S28A,
S36/37/39, S45



Assay (GC): >98%

Di-n-butylamine phosphate for HPLC, solution 1.0 M

Certified



packaging	product code
100 mL Glass bottle	D/1341/05

$(CH_3(CH_2)_3)_2NH.H_3PO_4$
HS-Nr: 29071990

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
254 nm <0.05 A.U.

Filtered to 0.2 µm.

2,6-Di-tert-butyl-p-cresol pure

packaging	product code
500 g Plastic Jar	D/1345/53

$C_{15}H_{24}O$
CAS: 128-37-0
MW: 220.36
Boiling point: 265°C
Boiling pressure: 760 mmHg
Melting point: 69 to 71°C

Flash point: 127°C
HS-Nr: 29071990
EINECS: 204-881-4
Risk: R22, R36/37/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Di-n-butyl ether pure

packaging	product code
2.5 L Glass bottle	D/1350/17
200 L Metal drum	D/1350/27

$C_8H_{18}O$
CAS: 142-96-1
MW: 130.23
Density at 20°C: 0.77
Boiling point: 141°C
Boiling pressure: 760 mmHg
Melting point: -95°C

Flash point: 25°C
ADR/RID: 3/III
UN: 1149
HS-Nr: 29091990
EINECS: 205-575-3
Risk: R10, R36/37/38, R52/53
Safety: S61



Assay (GC): >99%

see page 279 for suitable Tap & accessories.

Di-n-butyl phthalate extra pure

SLR



packaging	product code
500 mL Glass bottle	D/1500/08
2.5 L Glass bottle	D/1500/17
200 L Metal drum	D/1500/27

$C_{16}H_{22}O_4$
CAS: 84-74-2
MW: 278.35
Density at 20°C: 1.04
Boiling point: 340°C
Boiling pressure: 760 mmHg
Melting point: -35°C

Flash point: 188°C
ADR/RID: 9/III
UN: 3082
HS-Nr: 29173410
EINECS: 201-557-4
Risk: R61, R50, R62
Safety: S53, S45, S61



Assay (GC): >99%

Guaranteed analysis

Acidity <0.003 meq/g Residue after ignition <0.01%

see page 279 for suitable Tap & accessories.

Dichloroacetic acid extra pure

SLR



packaging	product code
100 mL Coated Glass Bottle	D/1550/PB05
1 L Coated Glass Bottle	D/1550/PB15

$C_2H_2Cl_2O_2$
CAS: 79-43-6
MW: 128.94
Density at 20°C: 1.56
Boiling point: 194°C
Boiling pressure: 760 mmHg
Freezing point: 11 to 13°C
Melting point: 911°C

Flash point: >112°C
ADR/RID: 8/II
UN: 1764
HS-Nr: 29154000
EINECS: 201-207-0
Risk: R35, R50
Safety: S26, S45, S61



Assay: >99%

Guaranteed analysis

Sulfate (SO₄) <0.001%

Suitable for DNA synthesis.

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The right grade for the right detection level.
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Trace Metal® & Primar Plus® grade.
Read more page 9



1.2-Dichlorobenzene
for analysis

Certified AR



packaging	product code
500 mL Glass bottle	D/1610/08

$C_6H_4Cl_2$
 CAS: 95-50-1
 MW: 147.01
 Density at 20°C: 1.3
 Boiling point: 179 to 180°C
 Boiling pressure: 760 mmHg
 Melting point: -15°C

Flash point: 67°C
 ADP/RID: 6.1/III
 UN: 1591
 HS-Nr: 29036100
 EINECS: 202-425-9
 Risk: R22, R36/37/38, R50/53
 Safety: S23, S60, S61



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Manganese (Mn)	<0.02 ppm
Colour	<10 APHA	Molybdenum (Mo)	<0.02 ppm
Residue after evaporation	<20 ppm	Nickel (Ni)	<0.02 ppm
Water	<0.02%	Potassium (K)	<0.2 ppm
Aluminium (Al)	<0.1 ppm	Sodium (Na)	<1 ppm
Barium (Ba)	<0.05 ppm	Strontium (Sr)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Titanium (Ti)	<0.02 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<0.2 ppm
Chromium (Cr)	<0.02 ppm	Total silicon (Si)	<0.2 ppm
Cobalt (Co)	<0.05 ppm	Total sulphur (S)	<0.5 ppm
Copper (Cu)	<0.05 ppm	Vanadium (V)	<0.02 ppm
Iron (Fe)	<0.5 ppm	Zinc (Zn)	<0.5 ppm
Lead (Pb)	<0.05 ppm	1.3-Dichlorobenzene	<0.1%
Lithium (Li)	<0.02 ppm	1.4-Dichlorobenzene	<0.1%
Magnesium (Mg)	<0.2 ppm		

Lot analysis on the label.

1.2-Dichlorobenzene
extra pure

SLR



packaging	product code
1 L Glass bottle	D/1600/15
2.5 L Glass bottle	D/1600/17
2.5 L Coated Glass Bottle	D/1600/PB17

$C_6H_4Cl_2$
 CAS: 95-50-1
 MW: 147.01
 Density at 20°C: 1.3
 Boiling point: 179 to 180°C
 Boiling pressure: 760 mmHg
 Melting point: -15°C

Flash point: 67°C
 ADP/RID: 6.1/III
 UN: 1591
 HS-Nr: 29036100
 EINECS: 202-425-9
 Risk: R22, R36/37/38, R50/53
 Safety: S23, S60, S61



Assay (GC): >98%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<1 ppm
Colour	<20 APHA	Potassium (K)	<1 ppm
Residue after evaporation	<200 ppm	Sodium (Na)	<5 ppm
Water	<0.1%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<1 ppm	Other isomers	<2%

1.2-Dichloroethane
for HPLC

Certified



packaging	product code
1 L Glass bottle	D/1756/15
2.5 L Glass bottle	D/1756/17
2.5 L Coated Glass Bottle	D/1756/PB17

$C_2H_4Cl_2$
 CAS: 107-06-2
 MW: 98.96
 Density at 20°C: 1.25
 Boiling point: 81 to 85°C
 Boiling pressure: 760 mmHg
 Melting point: -35°C

Flash point: 13°C
 ADP/RID: 3(6.1)/II
 UN: 1184
 HS-Nr: 29031500
 EINECS: 203-458-1
 Risk: R45, R11, R22, R36/37/38
 Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0015 meq/g	Water	<0.02%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

240 nm	<0.15 A.U.	260 nm	<0.005 A.U.
250 nm	<0.05 A.U.	270 nm	<0.005 A.U.

Lot analysis on the label including an absorbance curve.
 Filtered to 0.2 µm.

1.2-Dichloroethane
for analysis

Certified AR



packaging	product code
1 L Glass bottle	D/1751/15
2.5 L Glass bottle	D/1751/17
200 L Metal drum	D/1751/27

$C_2H_4Cl_2$
 CAS: 107-06-2
 MW: 98.96
 Density at 20°C: 1.25
 Boiling point: 81 to 85°C
 Boiling pressure: 760 mmHg
 Melting point: -35°C

Flash point: 13°C
 ADP/RID: 3(6.1)/II
 UN: 1184
 HS-Nr: 29031500
 EINECS: 203-458-1
 Risk: R45, R11, R22, R36/37/38
 Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Iron (Fe)	<1 ppm
Colour	<10 APHA	Lead (Pb)	<0.02 ppm
Residue after evaporation	<20 ppm	Magnesium (Mg)	<0.1 ppm
Substances		Potassium (K)	<0.2 ppm
reducing $KMnO_4$	<0.001%	Sodium (Na)	<0.5 ppm
Water	<0.03%	Total phosphorus (P)	<0.2 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Chlorine	<1 ppm	Total sulphur (S)	<0.5 ppm
Copper (Cu)	<0.05 ppm	Zinc (Zn)	<0.2 ppm

Typical analysis

Aluminium (Al)	<0.02 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

1.2-Dichloroethane
extra pure

SLR



packaging	product code
500 mL Glass bottle	D/1750/08
2.5 L Glass bottle	D/1750/17
5 L Metal can	D/1750/21
25 L Metal drum	D/1750/25

$C_2H_4Cl_2$
 CAS: 107-06-2
 MW: 98.96
 Density at 20°C: 1.25
 Boiling point: 81 to 85°C
 Boiling pressure: 760 mmHg
 Melting point: -35°C

Flash point: 13°C
 ADP/RID: 3(6.1)/II
 UN: 1184
 HS-Nr: 29329090
 EINECS: 203-458-1
 Risk: R45, R11, R22, R36/37/38
 Safety: S53, S45



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Iron (Fe)	<2 ppm
Colour	<20 APHA	Lead (Pb)	<1 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<0.5 ppm
Substances		Potassium (K)	<1 ppm
reducing $KMnO_4$	<0.01%	Sodium (Na)	<2 ppm
Water	<0.1%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<2 ppm	Total silicon (Si)	<0.2 ppm
Chlorine	<10 ppm	Total sulphur (S)	<2 ppm
Copper (Cu)	<1 ppm	Zinc (Zn)	<1 ppm

see page 279 for suitable Tap & accessories.

Dichloro (R) fluorescein
Technical

packaging	product code
5 g Glass packaging	D/1820/44

$C_{20}H_{10}Cl_2O_5$
 CAS: 76-54-0
 MW: 401.2
 Density at 20°C: 0.79
 Melting point: 280 °C

HS-Nr: 29329090
 EINECS: 200-968-6
 Risk: R36/37/38
 Safety: S26, S37/39



Guaranteed analysis

IR Analysis	Conform
-------------	---------

Dichloromethane unstabilized for HPLC

Certified



packaging	product code
1 L Glass bottle	D/1857/15
2.5 L Glass bottle	D/1857/17
2.5 L Coated Glass Bottle	D/1857/PB17

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0001 meq/g Water <0.02%
Residue after evaporation <2 ppm Chlorine <5 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

240 nm <0.2 A.U. 270 nm <0.005 A.U.
250 nm <0.02 A.U. 280 nm <0.005 A.U.
260 nm <0.005 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

240 nm <0.2 A.U. 270 nm <0.005 A.U.
250 nm <0.02 A.U. 280 nm <0.005 A.U.
260 nm <0.005 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Dichloromethane stabilized with amylene for Gel Permeation Chromatography (GPC)

Certified



packaging	product code
2.5 L Coated Glass Bottle	D/1861/PB17

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Guaranteed analysis

Colour <5 APHA Water <0.02%
Residue after evaporation <2 ppm

Dichloromethane stabilized with amylene for HPLC

Certified



packaging	product code
1 L Glass bottle	D/1856/15
2.5 L Glass bottle	D/1856/17
2.5 L Coated Glass Bottle	D/1856/PB17
5 L Aluminium drum	D/1856/21
25 L Stainless steel drum	D/1856/25SS
200 L Stainless steel drum	D/1856/27SS

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0001 meq/g Water <0.02%
Residue after evaporation <2 ppm Chlorine <5 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

240 nm <0.2 A.U. 270 nm <0.005 A.U.
250 nm <0.02 A.U. 280 nm <0.005 A.U.
260 nm <0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Dichloromethane stabilized with amylene for trace metal analysis

Primar



packaging	product code
2.5 L Glass bottle	D/1855/17

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g	Lithium (Li) <0.005 ppm
Chloroform <0.002%	Magnesium (Mg) <0.02 ppm
Colour <5 APHA	Manganese (Mn) <0.005 ppm
Residue after evaporation <2 ppm	Molybdenum (Mo) <0.005 ppm
Substances darkened by (H ₂ SO ₄) <5 APHA	Nickel (Ni) <0.005 ppm
Water <0.01%	Potassium (K) <0.05 ppm
Aluminium (Al) <0.02 ppm	Silver (Ag) <0.005 ppm
Barium (Ba) <0.005 ppm	Sodium (Na) <0.2 ppm
Cadmium (Cd) <0.005 ppm	Strontium (Sr) <0.005 ppm
Calcium (Ca) <0.05 ppm	Titanium (Ti) <0.005 ppm
Chlorine <100 ppm	Total phosphorus (P) <0.02 ppm
Chromium (Cr) <0.005 ppm	Total silicon (Si) <0.02 ppm
Cobalt (Co) <0.005 ppm	Total sulphur (S) <0.1 ppm
Copper (Cu) <0.01 ppm	Vanadium (V) <0.005 ppm
Iron (Fe) <0.05 ppm	Zinc (Zn) <0.01 ppm
Lead (Pb) <0.005 ppm	1,1-Dichloroethane <0.002%
	Carbon tetrachloride <0.002%

Dichloromethane stabilized with methanol for HPLC

Certified



packaging	product code
1 L Glass bottle	D/1859/15
2.5 L Glass bottle	D/1859/17

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0001 meq/g Water <0.02%
Residue after evaporation <2 ppm Chlorine <5 ppm

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Dichloromethane stabilized with amylene for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	D/1853/15
2.5 L Glass bottle	D/1853/17

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.8%

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.02%
GC (NPD) analysis	Conform		

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 µg / mL héptachloréoxide (ECD) and 5 µg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1 µm df.

Temperature profile:

(1) 50°C for 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5 µl cold on the column.

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<0.05 ppm
Chloroform	<0.01%	Magnesium (Mg)	<0.05 ppm
Colour	<5 APHA	Potassium (K)	<0.5 ppm
Residue after evaporation	<10 ppm	Sodium (Na)	<0.5 ppm
Substances darkened		Total phosphorus (P)	<0.2 ppm
by (H ₂ SO ₄)	<5 APHA	Total silicon (Si)	<0.05 ppm
Water	<0.02%	Total sulphur (S)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Zinc (Zn)	<0.1 ppm
Chlorine	<0.3 ppm	1.1-Dichloroethane	<0.005 %
Copper (Cu)	<0.02 ppm	Carbon tetrachloride	<0.01 %
Iron (Fe)	<0.1 ppm		

Typical analysis

Aluminium (Al)	<0.2 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Dichloromethane extra pure

SLR



packaging	product code
500 mL Glass bottle	D/1850/08
1 L Glass bottle	D/1850/15
2.5 L Glass bottle	D/1850/17
2.5 L Coated Glass Bottle	D/1850/PB17
5 L Metal can	D/1850/21
25 L Metal drum	D/1850/25
25 L Stainless steel drum	D/1850/25SS
25 L Metal drum	D/1850/DH25
200 L Metal drum	D/1850/27
200 L Stainless steel drum	D/1850/27SS

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Lead (Pb)	<1 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.2 ppm
Residue after evaporation	<500 ppm	Potassium (K)	<2 ppm
Substances darkened		Sodium (Na)	<2 ppm
by (H ₂ SO ₄)	<25 APHA	Total phosphorus (P)	<1 ppm
Water	<0.05%	Total silicon (Si)	<0.2 ppm
Calcium (Ca)	<2 ppm	Total sulphur (S)	<2 ppm
Copper (Cu)	<1 ppm	Zinc (Zn)	<0.5 ppm
Iron (Fe)	<2 ppm		

see page 279 for suitable Tap & accessories.

Dichloromethane stabilized with amylene extra dry, for synthesis



packaging	product code
1 L Glass bottle	D/1854/PB15

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.8%

Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.01%
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Dichloromethane stabilized with amylene for analysis

Certified AR



packaging	product code
1 L Glass bottle	D/1852/15
1 L Coated Glass Bottle	D/1852/PB15
2.5 L Glass bottle	D/1852/17
2.5 L Coated Glass Bottle	D/1852/PB17
5 L Metal can	D/1852/21
10 L Metal drum	D/1852/24
25 L Metal drum	D/1852/25
200 L Metal drum	D/1852/27

CH₂Cl₂
CAS: 75-09-2
MW: 84.93
Density at 20°C: 1.33
Boiling point: 39 to 40°C
Boiling pressure: 760 mmHg
Melting point: -97°C

ADR/RID: 6.1/III
UN: 1593
HS-Nr: 29031200
EINECS: 200-838-9
Risk: R40
Safety: S23, S24/25, S36/37



Assay (GC): >99.8%

Diethanolamine extra pure

SLR



packaging	product code
500 mL Glass bottle	D/2050/08
2.5 L Glass bottle	D/2050/17

C₄H₁₁NO₂
CAS: 111-42-2
MW: 105.14
Density at 20°C: 1.1
Boiling point: 268°C
Boiling pressure: 760 mmHg

Melting point: 27 to 30°C
Flash point: 179°C
HS-Nr: 29221200
EINECS: 203-868-0
Risk: R22, R38, R41, R48/22
Safety: S26, S36/37/39, S46



Assay (GC): >99%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<20 ppm
Water	<0.5%	Sodium (Na)	<50 ppm
Calcium (Ca)	<20 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<2 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<2 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<5 ppm		

Diethylamine for analysis

Certified AR



packaging	product code
500 mL Glass bottle	D/2110/08
2.5 L Glass bottle	D/2110/17

$C_4H_{11}N$
 CAS: 109-89-7
 MW: 73.14
 Density at 20°C: 0.71
 Boiling point: 55°C
 Boiling pressure: 760 mmHg
 Melting point: -50°C
 Flash point: -23°C

ADR/RID: 3(8)/II
 UN: 1154
 HS-Nr: 29211950
 EINECS: 203-716-3
 Risk: R11, R20/21/22, R35
 Safety: S3, S16, S26, S29,
 S36/37/39, S45



Assay (GC): >99.5%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.2 ppm
Residue after evaporation	<100 ppm	Sodium (Na)	<1 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<0.2 ppm
Copper (Cu)	<0.05 ppm	Total silicon (Si)	<0.05 ppm
Iron (Fe)	<0.5 ppm	Total sulphur (S)	<0.5 ppm
Lead (Pb)	<0.05 ppm	Zinc (Zn)	<0.5 ppm
Magnesium (Mg)	<0.5 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.05 ppm
Barium (Ba)	<0.05 ppm	Molybdenum (Mo)	<0.05 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Strontium (Sr)	<0.05 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.05 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.05 ppm

Lot analysis on the label.

Diethylamine extra pure

SLR



packaging	product code
500 mL Glass bottle	D/2100/08
2.5 L Glass bottle	D/2100/17

$C_4H_{11}N$
 CAS: 109-89-7
 MW: 73.14
 Density at 20°C: 0.71
 Boiling point: 55°C
 Boiling pressure: 760 mmHg
 Melting point: -50°C
 Flash point: -23°C

ADR/RID: 3(8)/II
 UN: 1154
 HS-Nr: 29211950
 EINECS: 203-716-3
 Risk: R11, R20/21/22, R35
 Safety: S3, S16, S26, S29,
 S36/37/39, S45



Assay (GC): >99%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<5 ppm
Residue after evaporation	<500 ppm	Sodium (Na)	<10 ppm
Calcium (Ca)	<5 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<2 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<2 ppm		

Diethylammonium diethyldithiocarbamate pure

packaging	product code
100 g Plastic jar	D/2250/48

$C_5H_{11}NS_2 \cdot C_4H_{11}N$
 CAS: 1518-58-7
 MW: 222.42
 Melting point: 81 to 85°C

HS-Nr: 29302000
 EINECS: 216-175-3
 Risk: R22, R36/37/38
 Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Diethylene glycol for analysis

Certified AR



packaging	product code
500 mL Glass bottle	D/2951/08
2.5 L Glass bottle	D/2951/17

$C_4H_{10}O_3$
 CAS: 111-46-6
 MW: 106.12
 Density at 20°C: 1.11
 Boiling point: 245°C
 Boiling pressure: 760 mmHg

Melting point: -10°C
 Flash point: 143°C
 HS-Nr: 29094100
 EINECS: 203-872-2
 Risk: R22
 Safety: S46



Assay (GC): >99.5%

Guaranteed analysis

Colour	<10 APHA	Magnesium (Mg)	<1 ppm
Residue after ignition	<0.01%	Manganese (Mn)	<0.05 ppm
Water	<0.2%	Molybdenum (Mo)	<0.05 ppm
Aluminium (Al)	<0.1 ppm	Nickel (Ni)	<0.05 ppm
Barium (Ba)	<0.1 ppm	Potassium (K)	<1 ppm
Cadmium (Cd)	<0.05 ppm	Sodium (Na)	<5 ppm
Calcium (Ca)	<2 ppm	Strontium (Sr)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Titanium (Ti)	<0.05 ppm
Cobalt (Co)	<0.05 ppm	Total phosphorus (P)	<0.5 ppm
Copper (Cu)	<0.5 ppm	Total silicon (Si)	<0.1 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<1 ppm
Lead (Pb)	<0.5 ppm	Vanadium (V)	<0.05 ppm
Lithium (Li)	<0.05 ppm	Zinc (Zn)	<0.5 ppm

Lot analysis on the label.

Diethylene glycol extra pure

SLR



packaging	product code
500 mL Glass bottle	D/2950/08
2.5 L Glass bottle	D/2950/17

$C_4H_{10}O_3$
 CAS: 111-46-6
 MW: 106.12
 Density at 20°C: 1.11
 Boiling point: 245°C
 Boiling pressure: 760 mmHg

Melting point: -10°C
 Flash point: 143°C
 HS-Nr: 29094100
 EINECS: 203-872-2
 Risk: R22
 Safety: S46



Assay (GC): >99%

Guaranteed analysis

Colour	<30 APHA	Magnesium (Mg)	<5 ppm
Residue after ignition	<0.05%	Potassium (K)	<5 ppm
Water	<0.5%	Sodium (Na)	<20 ppm
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<1 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<5 ppm

Diethylene glycol monoethyl ether pure

packaging	product code
2.5 L Glass bottle	E/1300/17

$C_6H_{14}O_3$
 CAS: 111-90-0
 MW: 134.18
 Density at 20°C: <0.99
 Boiling point: 197°C
 Boiling pressure: 760 mmHg

Melting point: -80°C
 Flash point: 94°C
 HS-Nr: 29094400
 EINECS: 203-919-7
 Risk: R20, R36
 Safety: S26, S39



Guaranteed analysis

Water <0.05%

Diethylenetriaminepenta-acetic acid sodium salt pure, solution about 40% w/w

packaging	product code
500 mL Glass bottle	D/2350/08

Density at 20°C: 1.25 to 1.35
 HS-Nr: 38220000
 Risk: R36/38
 Safety: S26



pH Buffers

NIST Certified Standard
 Solution & Concentrate

A full range to discover on page 45



Diethyl ether stabilized with ethanol
for HPLC

Certified



packaging	product code
1 L Glass bottle	D/2506/15
2.5 L Glass bottle	D/2506/17
2.5 L Coated Glass Bottle	D/2506/PB17

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g Water <0.02%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

210 nm <0.3 A.U. 250 nm <0.05 A.U.
220 nm <0.2 A.U. 260 nm <0.025 A.U.
230 nm <0.125 A.U. 270 nm <0.01 A.U.
240 nm <0.075 A.U.

Lot analysis on the label including an absorbance curve.
Filtered to 0.2 µm.

Diethyl ether
for trace metal analysis, stabilized with copper gauze

Primar



packaging	product code
2.5 L Glass bottle	D/2455/17

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99.9%

Guaranteed analysis

Acetone <0.002%	Magnesium (Mg) <0.02 ppm
Acidity / Alkalinity <0.0002 meq/g	Manganese (Mn) <0.005 ppm
Colour <5 APHA	Molybdenum (Mo) <0.005 ppm
Residue after evaporation <2 ppm	Nickel (Ni) <0.005 ppm
Substances darkened by (H ₂ SO ₄) <5 APHA	Potassium (K) <0.05 ppm
Water <0.01%	Silver (Ag) <0.005 ppm
Aluminium (Al) <0.02 ppm	Sodium (Na) <0.2 ppm
Barium (Ba) <0.005 ppm	Strontium (Sr) <0.005 ppm
Cadmium (Cd) <0.005 ppm	Titanium (Ti) <0.005 ppm
Calcium (Ca) <0.05 ppm	Total phosphorus (P) <0.02 ppm
Chromium (Cr) <0.005 ppm	Total silicon (Si) <0.02 ppm
Cobalt (Co) <0.005 ppm	Total sulphur (S) <0.1 ppm
Copper (Cu) <0.01 ppm	Vanadium (V) <0.005 ppm
Iron (Fe) <0.05 ppm	Zinc (Zn) <0.01 ppm
Lead (Pb) <0.005 ppm	Ethanol <0.002%
Lithium (Li) <0.005 ppm	Ether peroxide <1 ppm
	Methanol <0.005%

Diethyl ether
for residue and pesticide analysis, stabilized with copper gauze

Distol



packaging	product code
2.5 L Glass bottle	D/2503/17

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99.5%

Guaranteed analysis

Water <0.25 % Analysis GC (NPD) Conform
Analysis GC (ECD) Conform Residue after evaporation >2 ppm
Analysis GC (FID) Conform

Diethyl ether stabilized with ethanol
extra dry, for synthesis

packaging	product code
1 L Glass bottle	D/2502/15
2.5 L Glass bottle	D/2502/17

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation <2 ppm Peroxide <0.00005%
Water <0.01%

Diethyl ether stabilized with BHT
for analysis

Certified AR, Eur.Ph.



packaging	product code
500 mL Coated Glass Bottle	D/2450/PB08
1 L Glass bottle	D/2450/15
1 L Coated Glass Bottle	D/2450/PB15
2.5 L Glass bottle	D/2450/17
2.5 L Coated Glass Bottle	D/2450/PB17
5 L Metal can	D/2450/21
25 L Metal drum	D/2450/25
25 L Metal drum	D/2450/DH25
200 L Metal drum	D/2450/27

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99.5%

Guaranteed analysis

Acetone <0.002%	Lead (Pb) <0.05 ppm
Acidity / Alkalinity <0.0005 meq/g	Magnesium (Mg) <0.05 ppm
Colour <5 APHA	Potassium (K) <0.5 ppm
Residue after evaporation <10 ppm	Sodium (Na) <0.5 ppm
Substances darkened by (H ₂ SO ₄) <10 APHA	Total phosphorus (P) <0.1 ppm
Substances reducing KMnO ₄ <0.001%	Total silicon (Si) <0.05 ppm
Water <0.05%	Total sulphur (S) <0.2 ppm
Calcium (Ca) <0.2 ppm	Zinc (Zn) <0.05 ppm
Copper (Cu) <0.05 ppm	Ethanol <0.01 %
Iron (Fe) <0.1 ppm	Ether peroxide <1 ppm
	Methanol <0.01 %

Typical analysis

Aluminium (Al) <0.05 ppm	Manganese (Mn) <0.01 ppm
Barium (Ba) <0.01 ppm	Molybdenum (Mo) <0.01 ppm
Cadmium (Cd) <0.01 ppm	Nickel (Ni) <0.01 ppm
Chromium (Cr) <0.01 ppm	Strontium (Sr) <0.05 ppm
Cobalt (Co) <0.01 ppm	Titanium (Ti) <0.01 ppm
Lithium (Li) <0.01 ppm	Vanadium (V) <0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Fisher Chemical products takes care of the environment!

Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Diethyl ether stabilized with BHT
extra pure

SLR

SpeciFied
LR

packaging	product code
500 mL Coated Glass Bottle	D/2400/PB08
2.5 L Glass bottle	D/2400/17
2.5 L Coated Glass Bottle	D/2400/PB17
5 L Metal can	D/2400/21
25 L Metal drum	D/2400/25
25 L Metal drum	D/2400/DH25
200 L Metal drum	D/2400/27

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Lead (Pb)	<1 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<20 ppm	Potassium (K)	<2 ppm
Substances		Sodium (Na)	<5 ppm
reducing KMnO ₄	<0.005%	Total phosphorus (P)	<1 ppm
Water	<0.2%	Total silicon (Si)	<1 ppm
Calcium (Ca)	<5 ppm	Total sulphur (S)	<1 ppm
Copper (Cu)	<1 ppm	Zinc (Zn)	<1 ppm
Iron (Fe)	<2 ppm	Ether peroxide	<10 ppm

see page 279 for suitable Tap & accessories.

1.8-Dihydroxynaphthalene-3.6-disulfonic acid, disodium salt dihydrate

See Chromotropic acid sodium salt dihydrate, page 69

di-(2-Hydroxyphenylimino)ethane
pure, for calcium determination

packaging	product code
10 g Plastic Jar	D/3100/45

C₁₄H₁₂N₂O₂
CAS: 1149-16-2
MW: 240.26
Boiling pressure: 760 mmHg

Melting point: 201 to 205°C
HS-Nr: 29252090
EINECS: 214-560-0
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

L(+)-Dihydroxysuccinic acid

See (+)-Tartaric acid, page 280

Diethyl ether stabilized with pyrogallol
pure, for synthesis

packaging	product code
1 L Glass bottle	D/2500/15
2.5 L Glass bottle	D/2500/17

C₄H₁₀O
CAS: 60-29-7
MW: 74.12
Density at 20°C: 0.71
Boiling point: 34.6°C
Boiling pressure: 760 mmHg
Melting point: -116°C

Flash point: -45°C
ADR/RID: 3/I
UN: 1155
HS-Nr: 29091100
EINECS: 200-467-2
Risk: R12, R19, R22, R66, R67
Safety: S9, S16, S29, S33



Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation	<20 ppm	Peroxide	<0.00005%
Water	<0.02%		

1.2-Dihydroxyanthraquinone

See Alizarin C.I. 58000, page 11

(3.4-Dihydroxy-2-anthraquinonyl)methylimino-diacetic acid dihydrate

See 3-Aminomethylalizarin-N,N-diacetic acid, page 17

1.3-Dihydroxybenzene See Resorcinol, page 222

1.2-Dihydroxybenzene-3.5-disulfonic acid, disodium salt
pure, Metal indicator (Tiron) for Iron and Titanium.

packaging	product code
25 g Plastic Jar	D/3000/46

(OH)₂C₆H₂(SO₃Na)₂·H₂O
CAS: 149-45-1
MW: 332.22
Melting point: >300°C

Guaranteed analysis

IR Analysis Conform

Di-iodomethane
extra pure

SLR

SpeciFied
LR

packaging	product code
25 mL Glass bottle	D/3200/04

CH₂I₂
CAS: 75-11-6
MW: 267.84
Density at 20°C: 3.315 to 3.325
Boiling point: 181°C
Boiling pressure: 760 mmHg
Melting point: 6°C

Flash point: >110°C
ADR/RID: 6.1/III
UN: 2810
HS-Nr: 29033090
EINECS: 200-841-5
Risk: R36/37/38
Safety: S26, S37/39



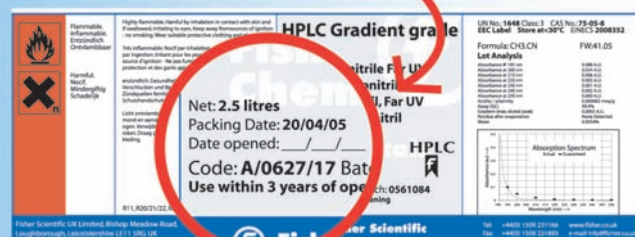
Di-iso-octyl phthalate
pure

packaging	product code
2.5 L Glass bottle	D/4470/17

C₁₈H₃₄(COO·C₈H₁₇)₂
CAS: 27554-26-3
MW: 390.57
Density at 20°C: 0.97 to 0.99

HS-Nr: 38220000
EINECS: 248-523-5
Risk: R2, R24/25

Use best before information on the label



Di-iso-propyl ether stabilized with BHT for analysis

Certified AR



packaging	product code
1 L Glass bottle	D/5002/15
2.5 L Glass bottle	D/5002/17
5 L Metal can	D/5002/21
25 L Metal drum	D/5002/25

$C_6H_{14}O$
 CAS: 108-20-3
 MW: 102.18
 Density at 20°C: 0.72
 Boiling point: 68°C
 Boiling pressure: 760 mmHg
 Melting point: -85.5°C

Flash point: -29°C
 ADR/RID: 3/II
 UN: 1159
 HS-Nr: 29091990
 EINECS: 203-560-6
 Risk: R11, R19, R66, R67
 Safety: S9, S16, S29, S33



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Magnesium (Mg)	<0.2 ppm
Colour	<10 APHA	Manganese (Mn)	<0.05 ppm
Residue after evaporation	<20 ppm	Molybdenum (Mo)	<0.02 ppm
Water	<0.1%	Nickel (Ni)	<0.05 ppm
Aluminium (Al)	<0.2 ppm	Potassium (K)	<0.5 ppm
Barium (Ba)	<0.05 ppm	Sodium (Na)	<1 ppm
Cadmium (Cd)	<0.05 ppm	Strontium (Sr)	<0.05 ppm
Calcium (Ca)	<0.5 ppm	Titanium (Ti)	<0.02 ppm
Chromium (Cr)	<0.05 ppm	Total phosphorus (P)	<0.05 ppm
Cobalt (Co)	<0.02 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<0.2 ppm
Iron (Fe)	<0.1 ppm	Vanadium (V)	<0.02 ppm
Lead (Pb)	<0.02 ppm	Zinc (Zn)	<0.2 ppm
Lithium (Li)	<0.02 ppm	Peroxide	<0.001%

see page 279 for suitable Tap & accessories.

Dimedone pure

packaging	product code
25 g Plastic Jar	D/3220/46

$C_8H_{12}O_2$
 CAS: 126-81-8
 MW: 140.18
 Boiling pressure: 760 mmHg

Melting point: 147 to 150°C
 HS-Nr: 29142900
 EINECS: 204-804-4
 Safety: S24/25

1,2-Dimethoxyethane extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	D/3280/PB08

$C_4H_{10}O_2$
 CAS: 110-71-4
 MW: 90.12
 Density at 20°C: 0.867 to 0.871
 Boiling point: 84 to 86°C
 Boiling pressure: 760 mmHg
 Melting point: -69°C

Flash point: 6°C
 ADR/RID: 3/II
 UN: 2252
 HS-Nr: 29091990
 EINECS: 203-794-9
 Risk: R60, R61, R11, R19, R20
 Safety: S53, S45



Assay (GC): >99%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)
 Refractive index 1.379 to 1.383

Di-iso-propyl ether stabilized with BHT extra pure

SLR



packaging	product code
1 L Glass bottle	D/5000/15
2.5 L Glass bottle	D/5000/17
2.5 L Coated Glass Bottle	D/5000/PB17
5 L Metal can	D/5000/21
194 L Metal drum	D/5000/99

$C_6H_{14}O$
 CAS: 108-20-3
 MW: 102.18
 Density at 20°C: 0.72
 Boiling point: 68°C
 Boiling pressure: 760 mmHg
 Melting point: -85.5°C

Flash point: -29°C
 ADR/RID: 3/II
 UN: 1159
 HS-Nr: 29091990
 EINECS: 203-560-6
 Risk: R11, R19, R66, R67
 Safety: S9, S16, S29, S33



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<5 ppm
Residue after evaporation	<100 ppm	Sodium (Na)	<10 ppm
Water	<0.2%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<1 ppm		

Dimethoxymethane pure

packaging	product code
500 mL Glass bottle	D/3400/08

$C_3H_8O_2$
 CAS: 109-87-5
 MW: 76.09
 Density at 20°C: 0.86
 Boiling point: 41 to 42°C
 Boiling pressure: 760 mmHg
 Melting point: -105°C

Flash point: -18°C
 ADR/RID: 3/II
 UN: 1234
 HS-Nr: 29110000
 EINECS: 203-714-2
 Risk: R11, R36/37/38
 Safety: S16, S26, S37/39



N,N-Dimethylacetamide for analysis

Certified AR



packaging	product code
500 mL Glass bottle	D/3411/08
2.5 L Glass bottle	D/3411/17
2.5 L Coated Glass Bottle	D/3411/PB17

C_4H_9NO
 CAS: 127-19-5
 MW: 87.12
 Density at 20°C: 0.94
 Boiling point: 164 to 166°C
 Boiling pressure: 760 mmHg
 Melting point: -20°C

Flash point: 70°C
 ADR/RID: 6.1/III
 UN: 2810
 HS-Nr: 29241900
 EINECS: 204-826-4
 Risk: R61, R20/21
 Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.02 meq/g	Magnesium (Mg)	<0.5 ppm
Colour	<10 APHA	Manganese (Mn)	<0.05 ppm
Residue after evaporation	<100 ppm	Molybdenum (Mo)	<0.05 ppm
Water	<0.1%	Nickel (Ni)	<0.05 ppm
Aluminium (Al)	<0.1 ppm	Potassium (K)	<1 ppm
Barium (Ba)	<0.1 ppm	Sodium (Na)	<5 ppm
Cadmium (Cd)	<0.05 ppm	Strontium (Sr)	<0.05 ppm
Calcium (Ca)	<2 ppm	Titanium (Ti)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Total phosphorus (P)	<2 ppm
Cobalt (Co)	<0.05 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Vanadium (V)	<0.05 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<0.5 ppm
Lithium (Li)	<0.05 ppm		

Lot analysis on the label.

Di-iso-propylnaphthalene extra pure, mixed isomers

SLR



packaging	product code
2.5 L Glass bottle	D/5010/17

$C_{16}H_{20}$
 CAS: 38640-62-9
 MW: 212.33
 Density at 20°C: <0.96

HS-Nr: 29029090
 EINECS: 254-052-6
 Risk: R11, R19

N,N-Dimethylacetamide extra pure

SLR

SpeciFied	packaging	product code
	500 mL Glass bottle	D/3410/08
	2.5 L Glass bottle	D/3410/17
C ₄ H ₉ NO CAS: 127-19-5 MW: 87.12 Density at 20°C: 0.94 Boiling point: 164 to 166°C Boiling pressure: 760 mmHg Melting point: -20°C	Flash point: 70°C ADR/RID: 6.1/III UN: 2810 HS-Nr: 29241900 EINECS: 204-826-4 Risk: R61, R20/21 Safety: S53, S45	T
Assay (GC): >99%		
Guaranteed analysis		
Acidity / Alkalinity	<0.05 meq/g	Magnesium (Mg) <2 ppm
Colour	<20 APHA	Potassium (K) <5 ppm
Residue after evaporation	<500 ppm	Sodium (Na) <20 ppm
Water	<0.5%	Total phosphorus (P) <10 ppm
Calcium (Ca)	<10 ppm	Total silicon (Si) <1 ppm
Copper (Cu)	<5 ppm	Total sulphur (S) <20 ppm
Iron (Fe)	<10 ppm	Zinc (Zn) <5 ppm
Lead (Pb)	<5 ppm	

Dimethylamine pure, solution 40% w/v

packaging	product code
500 mL Glass bottle	D/3450/08
C ₂ H ₇ N CAS: 124-40-3 MW: 45.09 Density at 20°C: 0.88 to 0.9 Boiling point: 54°C Boiling pressure: 760 mmHg Melting point: -37°C Flash point: -18°C	ADR/RID: 3(8)/II UN: 1160 HS-Nr: 29211110 EINECS: 204-697-4 Risk: R12, R20/22, R34 Safety: S3, S16, S26, S29, S36/37/39, S45



4-Dimethylaminobenzaldehyde for analysis

Certified AR

CertiFied	packaging	product code
	25 g Plastic jar	D/3600/46
	100 g Plastic jar	D/3600/48
C ₉ H ₁₁ NO CAS: 100-10-7 MW: 149.19 Boiling point: 176 to 177°C Boiling pressure: 17 mmHg Melting point: 70 to 75°C	Flash point: 164°C HS-Nr: 29223900 EINECS: 202-819-0 Risk: R22, R52/53 Safety: S61	Xn
Assay: >99%		
Guaranteed analysis		
Insoluble matter (in alcohol)	<0.01%	Total chloride (Cl) <0.005 %
Calcium (Ca)	<20 ppm	Total phosphorus (P) <20 ppm
Copper (Cu)	<5 ppm	Total silicon (Si) <20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S) <50 ppm
Lead (Pb)	<5 ppm	Zinc (Zn) <10 ppm
Magnesium (Mg)	<10 ppm	Acids insoluble <0.01 %
Potassium (K)	<50 ppm	Bases type Indole Conform
Sodium (Na)	<100 ppm	

Lot analysis on the label.

4-Dimethylaminobenzaldehyde extra pure, Ehrlich's reagent

SLR

SpeciFied	packaging	product code
	25 g Plastic jar	D/3550/46
	100 g Plastic jar	D/3550/48
C ₉ H ₁₁ NO CAS: 100-10-7 MW: 149.19 Boiling point: 176 to 177°C Boiling pressure: 17 mmHg Melting point: 70 to 75°C	Flash point: 164°C HS-Nr: 29223900 EINECS: 202-819-0 Risk: R22, R52/53 Safety: S61	Xn
Assay: >98%		
Guaranteed analysis		
Calcium (Ca)	<100 ppm	Sodium (Na) <500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl) <0.02%
Iron (Fe)	<20 ppm	Total phosphorus (P) <100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S) <200 ppm
Potassium (K)	<200 ppm	Zinc (Zn) <50 ppm

4-Dimethylaminobenzylidenerhodanine extra pure

SLR

SpeciFied	packaging	product code
	5 g Glass packaging	D/3650/44
C ₁₂ H ₁₁ N ₃ O ₅ CAS: 536-17-4 MW: 264.37 Melting point: 285-288°C	HS-Nr: 29341000 EINECS: 208-625-2 Safety: S24/25	
Guaranteed analysis		
IR Analysis Conform		

4-benzenesulfonic acid, sodium salt

See Methyl orange, page 166



2-benzoic acid

See Methyl red, page 167



N,N-Dimethylaniline for analysis

Certified AR

AR	packaging	product code
	100 mL Coated Glass Bottle	D/3802/PB05
	500 mL Coated Glass Bottle	D/3802/PB08
C ₈ H ₁₁ N CAS: 121-69-7 MW: 121.18 Density at 20°C: 0.95 Boiling point: 193 to 194°C Boiling pressure: 760 mmHg Melting point: 1.5 to 2.5°C	Flash point: 63°C ADR/RID: 6.1/II UN: 2253 HS-Nr: 29214290 EINECS: 204-493-5 Risk: R23/24/25, R40, R51/53 Safety: S28A, S36/37, S45, S61	T
Assay (GC): >99%		
Guaranteed analysis		
Insoluble Substances (HCl)	<0.005%	Manganese (Mn) <0.05 ppm
Residue after evaporation	<100 ppm	Molybdenum (Mo) <0.05 ppm
Aluminium (Al)	<0.1 ppm	Nickel (Ni) <0.05 ppm
Barium (Ba)	<0.1 ppm	Potassium (K) <1 ppm
Cadmium (Cd)	<0.05 ppm	Sodium (Na) <5 ppm
Calcium (Ca)	<2 ppm	Strontium (Sr) <0.05 ppm
Chromium (Cr)	<0.05 ppm	Titanium (Ti) <0.05 ppm
Cobalt (Co)	<0.05 ppm	Total phosphorus (P) <2 ppm
Copper (Cu)	<1 ppm	Total silicon (Si) <0.05 ppm
Iron (Fe)	<2 ppm	Total sulphur (S) <5 ppm
Lead (Pb)	<1 ppm	Vanadium (V) <0.05 ppm
Lithium (Li)	<0.05 ppm	Zinc (Zn) <0.5 ppm
Magnesium (Mg)	<0.5 ppm	Aniline <0.1%

Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.

Choose between Optima®,
Trace Metal® & Primar Plus® grade.

Read more page 9



1.4-Dimethylbenzene

See p-Xylene, page 304



1.2-Dimethylbenzene *See o-Xylene, page 304* →1.3-Dimethylbenzene *See m-Xylene, page 304* →

5.5-Dimethyl-1.3-cyclohexanedione →

*See Dimedone, page 88*Dimethyldichlorosilane
pure

packaging	product code
100 mL Coated Glass Bottle	D/3820/PB05
250 mL Coated Glass Bottle	D/3820/PB07

$C_2H_6Cl_2Si$
CAS: 75-78-5
MW: 129.06
Density at 20°C: 1.06 to 1.08
Boiling point: 70°C
Boiling pressure: 760 mmHg
Melting point: -76°C

Flash point: -9°C
ADR/RID: 3(8)/II
UN: 1162
HS-Nr: 29310000
EINECS: 200-901-0
Risk: R11, R36/37/38

Dimethyl digol
extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	D/3830/PB08

$C_6H_{14}O_3$
CAS: 111-96-6
MW: 134.18
Density at 20°C: 0.942 to 0.944
Boiling point: 162°C
Boiling pressure: 760 mmHg
Melting point: -64°C

Flash point: 57°C
ADR/RID: 3/III
UN: 3271
HS-Nr: 29094400
EINECS: 203-924-4
Risk: R60, R61, R10, R19
Safety: S53, S45



Assay (GC): >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Refractive index 1.407 to 1.4085

Dimethylformamide
for HPLC

Certified



packaging	product code
1 L Glass bottle	D/3846/15
2.5 L Glass bottle	D/3846/17
2.5 L Coated Glass Bottle	D/3846/PB17
200 L Stainless steel drum	D/3846/2755

C_3H_7NO
CAS: 68-12-2
MW: 73.09
Density at 20°C: 0.95
Boiling point: 153°C
Boiling pressure: 760 mmHg
Melting point: -61°C

Flash point: 58°C
ADR/RID: 3/III
UN: 2265
HS-Nr: 29241900
EINECS: 200-679-5
Risk: R61, R20/21, R36
Safety: S53, S45



Guaranteed analysis

Acidity / Alkalinity <0.001 meq/g Water <0.05%
Residue after evaporation <10 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

300 nm <0.05 A.U. 350 nm <0.005 A.U.
320 nm <0.02 A.U. 270 nm <0.5 A.U.
340 nm <0.015 A.U. 280 nm <0.15 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Dimethylformamide

for Gel Permeation Chromatography (GPC)

Certified



packaging	product code
2.5 L Coated Glass Bottle	D/3847/PB17

C_3H_7NO
CAS: 68-12-2
MW: 73.09
Density at 20°C: 0.95
Boiling point: 153°C
Boiling pressure: 760 mmHg
Melting point: -61°C

Flash point: 58°C
ADR/RID: 3/III
UN: 2265
HS-Nr: 29241900
EINECS: 200-679-5
Risk: R61, R20/21, R36
Safety: S53, S45



Guaranteed analysis

Colour <10 APHA Water <0.05%
Residue after evaporation <10 ppm

Dimethylformamide

extra dry, for synthesis



packaging	product code
1 L Glass bottle	D/3842/15
2.5 L Glass bottle	D/3842/17
2.5 L Coated Glass Bottle	D/3842/PB17

C_3H_7NO
CAS: 68-12-2
MW: 73.09
Density at 20°C: 0.95
Boiling point: 153°C
Boiling pressure: 760 mmHg
Melting point: -61°C

Flash point: 58°C
ADR/RID: 3/III
UN: 2265
HS-Nr: 29241900
EINECS: 200-679-5
Risk: R61, R20/21, R36
Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation <20 ppm Water <0.02%

Dimethylformamide

for analysis

Certified AR



packaging	product code
500 mL Glass bottle	D/3841/08
1 L Glass bottle	D/3841/15
2.5 L Glass bottle	D/3841/17
2.5 L Coated Glass Bottle	D/3841/PB17
10 L Plastic drum	D/3841/24
25 L Metal drum	D/3841/25
25 L Metal drum	D/3841/DH25

C_3H_7NO
CAS: 68-12-2
MW: 73.09
Density at 20°C: 0.95
Boiling point: 153°C
Boiling pressure: 760 mmHg
Melting point: -61°C

Flash point: 58°C
ADR/RID: 3/III
UN: 2265
HS-Nr: 29241900
EINECS: 200-679-5
Risk: R61, R20/21, R36
Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity <0.0005 meq/g Magnesium (Mg) <0.5 ppm
Colour <10 APHA Potassium (K) <0.5 ppm
Residue after evaporation <20 ppm Sodium (Na) <2 ppm
Water <0.05% Total phosphorus (P) <0.5 ppm
Calcium (Ca) <1 ppm Total silicon (Si) <0.05 ppm
Copper (Cu) <0.5 ppm Total sulphur (S) <1 ppm
Iron (Fe) <1 ppm Zinc (Zn) <0.5 ppm
Lead (Pb) <0.5 ppm

Typical analysis

Aluminium (Al) <0.2 ppm Manganese (Mn) <0.05 ppm
Barium (Ba) <0.1 ppm Molybdenum (Mo) <0.05 ppm
Cadmium (Cd) <0.05 ppm Nickel (Ni) <0.05 ppm
Chromium (Cr) <0.05 ppm Strontium (Sr) <0.05 ppm
Cobalt (Co) <0.05 ppm Titanium (Ti) <0.05 ppm
Lithium (Li) <0.05 ppm Vanadium (V) <0.05 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Dimethylformamide extra pure

SLR

Specified

packaging	product code
500 mL Glass bottle	D/3840/08
1 L Glass bottle	D/3840/15
2.5 L Glass bottle	D/3840/17
2.5 L Plastic bottle	D/3840/PB17
5 L Plastic bottle	D/3840/21
25 L Metal drum	D/3840/25
200 L Metal drum	D/3840/27

C_3H_7NO
CAS: 68-12-2
MW: 73.09
Density at 20°C: 0.95
Boiling point: 153°C
Boiling pressure: 760 mmHg
Melting point: -61°C
Flash point: 58°C
ADR/RID: 3/III
UN: 2265
HS-Nr: 29241900
EINECS: 200-679-5
Risk: R61, R20/21, R36
Safety: S53, S45



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<5 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<50 ppm
Water	<0.2%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm		

see page 279 for suitable Tap & accessories.

Dimethylglyoxime for analysis

Certified AR

AR

packaging	product code
100 g Plastic jar	D/3900/48

$C_4H_8N_2O_2$
CAS: 95-45-4
MW: 116.12
Melting point: 239-241°C
HS-Nr: 29280000
EINECS: 202-420-1
Risk: R22



Assay: >98%

Guaranteed analysis

Insoluble in alcohol	<0.01%	Magnesium (Mg)	<5 ppm
Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Potassium (K)	<20 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<50 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<10 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<2 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm	Zinc (Zn)	<5 ppm

Lot analysis on the label.

Dimethylglyoxime pure

packaging	product code
100 g Plastic jar	D/3898/48

$C_4H_8N_2O_2$
CAS: 95-45-4
MW: 116.12
Melting point: 239-241°C
HS-Nr: 38220000
EINECS: 202-420-1
Risk: R22



Guaranteed analysis

IR Analysis Conform

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Dimethylglyoxime sodium salt pure

packaging	product code
250 g Plastic jar	D/3950/50

$C_4H_6N_2Na_2O_3 \cdot 8H_2O$
CAS: 60908-54-5
MW: 304.22
HS-Nr: 29280000
EINECS: 262-523-2
Risk: R36/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

N,N-Dimethyl-p-phenylenediamine sulfate extra pure

SLR

Specified

packaging	product code
25 g Plastic jar	D/4016/46

$C_8H_{12}N_2 \cdot H_2SO_4$
CAS: 536-47-0
MW: 234.28
Boiling point: 495°C
Boiling pressure: 760 mmHg
Melting point: 234-236°C
ADR/RID: 6.1/II
UN: 3143
HS-Nr: 29215190
EINECS: 208-636-2
Risk: R23/24/25, R36/37/38
Safety: S26, S36/37/39, S45



Assay: >98%

Guaranteed analysis

Residue after ignition <0.1%

Dimethyl phthalate extra pure

SLR

Specified

packaging	product code
500 mL Glass bottle	D/4050/08
2.5 L Glass bottle	D/4050/17

$C_{10}H_{10}O_4$
CAS: 131-11-3
MW: 194.19
Density at 20°C: 1.19
Boiling point: 282°C
Boiling pressure: 760 mmHg
Flash point: 150°C
HS-Nr: 29173490
EINECS: 205-011-6
Safety: S24/25

Assay (GC): >99%

Guaranteed analysis

Acidity	<0.001 meq/g	Water	<0.15%
Residue after ignition	<0.02%		

Dimethyl sulfoxide for HPLC

Certified

HPLC

packaging	product code
250 mL Coated Glass Bottle	D/4125/PB07
500 mL Coated Glass Bottle	D/4125/PB08
2.5 L Coated Glass Bottle	D/4125/PB17
190 L Metal Drum	D/4125/99

$(CH_3)_2SO$
CAS: 67-68-5
MW: 78.13
Density at 20°C: 1.1
Boiling point: 189°C
Boiling pressure: 760 mmHg
Melting point: 18.4°C
Flash point: 87.8°C
HS-Nr: 29309085
EINECS: 200-664-3
Safety: S24/25

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0008 meq/g	Water	<0.05%
Residue after evaporation	<10 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

290 nm	<0.2 A.U.	360 nm	<0.01 A.U.
300 nm	<0.1 A.U.	270 nm	<0.5 A.U.
320 nm	<0.05 A.U.	280 nm	<0.3 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Dimethyl sulfoxide

for Gel Permeation Chromatography (GPC)



packaging	product code
-----------	--------------

2.5 L Coated Glass Bottle	D/4127/PB17
---------------------------	-------------

$(\text{CH}_3)_2\text{SO}$
 CAS: 67-68-5
 MW: 78.13
 Density at 20°C: 1.1
 Boiling point: 189°C
 Boiling pressure: 760 mmHg
 Melting point: 18.4°C
 Flash point: 87.8°C
 HS-Nr: 29309085
 EINECS: 200-664-3
 Safety: S24/25

Guaranteed analysis

Colour	<10 APHA	Water	<0.05%
Residue after evaporation	<10 ppm		

Dimethyl sulfoxide

for analysis

Certified AR



packaging	product code
500 mL Plastic bottle	D/4121/PB08
1 L Plastic bottle	D/4121/PB15
2.5 L Plastic bottle	D/4121/PB17
10 L Plastic Keg	D/4121/24
25 L Metal drum	D/4121/25
205 L Metal Drum	D/4121/28

$(\text{CH}_3)_2\text{SO}$
 CAS: 67-68-5
 MW: 78.13
 Density at 20°C: 1.1
 Boiling point: 189°C
 Boiling pressure: 760 mmHg
 Melting point: 18.4°C
 Flash point: 87.8°C
 HS-Nr: 29309085
 EINECS: 200-664-3
 Safety: S24/25

Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Lead (Pb)	<0.02 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.05 ppm
Residue after evaporation	<50 ppm	Potassium (K)	<0.5 ppm
Water	<0.05%	Sodium (Na)	<2 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<0.1 ppm
Copper (Cu)	<0.05 ppm	Total silicon (Si)	<0.02 ppm
Iron (Fe)	<0.5 ppm	Zinc (Zn)	<0.2 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.1 ppm
Chromium (Cr)	<0.05 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Dimethyl sulfoxide

extra pure

SLR



packaging	product code
500 mL Plastic bottle	D/4120/PB08
2.5 L Plastic bottle	D/4120/PB17
5 L Plastic bottle	D/4120/21
25 L Metal drum	D/4120/25

$(\text{CH}_3)_2\text{SO}$
 CAS: 67-68-5
 MW: 78.13
 Density at 20°C: 1.1
 Boiling point: 189°C
 Boiling pressure: 760 mmHg
 Melting point: 18.4°C
 Flash point: 87.8°C
 HS-Nr: 29309085
 EINECS: 200-664-3
 Safety: S24/25

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<1 ppm
Colour	<20 APHA	Magnesium (Mg)	<1 ppm
Residue after evaporation	<200 ppm	Potassium (K)	<2 ppm
Water	<0.2%	Sodium (Na)	<10 ppm
Calcium (Ca)	<5 ppm	Total phosphorus (P)	<1 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<1 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<1 ppm

see page 279 for suitable Tap & accessories.

Dimidium bromide-disulfine

extra pure, indicator stock solution

SLR



packaging	product code
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100 mL Glass bottle	D/4140/05
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HS-Nr: 38220000

Herring DE, Lab.



Dinonyl phthalate

for gas chromatography

packaging	product code
-----------	--------------

100 mL Glass bottle	D/4472/05
---------------------	-----------

$\text{C}_{26}\text{H}_{42}\text{O}_4$
 CAS: 84-76-4
 MW: 418.62
 Density at 20°C: 0.97
 Boiling point: 279 to 287°C
 Boiling pressure: 760 mmHg
 Flash point: 216°C
 HS-Nr: 29173300
 EINECS: 201-560-0
 Safety: S24/25

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Refractive index 1.482 to 1.484

Diocetyl sulfosuccinate sodium salt, Aerosol® OT-100

pure

packaging	product code
-----------	--------------

500 g Plastic jar	A/1040/53
-------------------	-----------

$\text{C}_{20}\text{H}_{37}\text{O}_7\text{SNa}$
 CAS: 577-11-7
 MW: 444.55
 Melting point: 153 to 157°C
 HS-Nr: 38220000
 EINECS: 209-406-4
 Risk: R22, R36/37/38
 Safety: S26, S37/39

Guaranteed analysis

IR Analysis Conform

1,4-Dioxane stabilized with BHT

for HPLC

Certified



packaging	product code
-----------	--------------

1 L Coated Glass Bottle	D/4556/PB15
2.5 L Coated Glass Bottle	D/4556/PB17

$\text{C}_4\text{H}_8\text{O}_2$
 CAS: 123-91-1
 MW: 88.11
 Density at 20°C: 1.03
 Boiling point: 101°C
 Boiling pressure: 760 mmHg
 Melting point: 12°C
 Flash point: 12°C
 ADR/RID: 3/II
 UN: 1165
 HS-Nr: 29329985
 EINECS: 204-661-8
 Risk: R11, R19, R36/37, R40, R66
 Safety: S9, S16, S36/37, S46

Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.025%
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Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

220 nm	<0.4 A.U.	250 nm	<0.075 A.U.
230 nm	<0.22 A.U.	260 nm	<0.05 A.U.
240 nm	<0.125 A.U.	270 nm	<0.03 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.



1,4-Dioxane stabilized with BHT

extra dry, for synthesis



packaging	product code
-----------	--------------

1 L Coated Glass Bottle	D/4551/PB15
2.5 L Coated Glass Bottle	D/4551/PB17

$\text{C}_4\text{H}_8\text{O}_2$
 CAS: 123-91-1
 MW: 88.11
 Density at 20°C: 1.03
 Boiling point: 101°C
 Boiling pressure: 760 mmHg
 Melting point: 12°C
 Flash point: 12°C
 ADR/RID: 3/II
 UN: 1165
 HS-Nr: 29329030
 EINECS: 204-661-8
 Risk: R11, R19, R36/37, R40, R66
 Safety: S9, S16, S36/37, S46

Assay (GC): >99.8%



Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.01%
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1.4-Dioxane stabilized with BHT for analysis

Certified AR



packaging	product code
1 L Glass bottle	D/4550/15
1 L Coated Glass Bottle	D/4550/PB15
2.5 L Coated Glass Bottle	D/4550/PB17
25 L Metal drum	D/4550/25

C ₄ H ₈ O ₂	Flash point: 12°C
CAS: 123-91-1	ADR/RID: 3/II
MW: 88.11	UN: 1165
Density at 20°C: 1.03	HS-Nr: 29329030
Boiling point: 101°C	EINECS: 204-661-8
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37, R40, R66
Melting point: 12°C	Safety: S9, S16, S36/37, S46



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Magnesium (Mg)	<0.05 ppm
Colour	<10 APHA	Potassium (K)	<0.1 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<0.5 ppm
Water	<0.05%	Total phosphorus (P)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.02 ppm	Total sulphur (S)	<0.2 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Lead (Pb)	<0.05 ppm	Acetal	<0.005 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Selenium (Se)	<0.1 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Manganese (Mn)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Slow moving peroxide content depending on the length of storage

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

1.4-Dioxane stabilized with BHT extra pure

SLR



packaging	product code
500 mL Glass bottle	D/4500/08
2.5 L Coated Glass Bottle	D/4500/PB17
5 L Metal can	D/4500/21
25 L Metal drum	D/4500/25

C ₄ H ₈ O ₂	Flash point: 12°C
CAS: 123-91-1	ADR/RID: 3/II
MW: 88.11	UN: 1165
Density at 20°C: 1.03	HS-Nr: 29329030
Boiling point: 101°C	EINECS: 204-661-8
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37, R40, R66
Melting point: 12°C	Safety: S9, S16, S36/37, S46



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<1 ppm
Colour	<20 APHA	Potassium (K)	<1 ppm
Residue after evaporation	<200 ppm	Sodium (Na)	<5 ppm
Water	<0.2%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<2 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<1 ppm		

see page 279 for suitable Tap & accessories.

Diphenylamine for analysis

Certified AR



packaging	product code
100 g Glass packaging	D/4700/48
250 g Glass packaging	D/4700/50

C ₁₂ H ₁₁ N	ADR/RID: 6.1/II
CAS: 122-39-4	UN: 2811
MW: 169.23	HS-Nr: 29214400
Boiling point: 302°C	EINECS: 204-539-4
Boiling pressure: 760 mmHg	Risk: R23/24/25, R33, R50/53
Melting point: 52 to 54°C	Safety: S28A, S36/37, S45, S60, S61
Flash point: 152°C	

Assay (GC): >99%

Guaranteed analysis

Aluminium (Al)	<2 ppm	Nitrate (NO ₃)	No reaction
Barium (Ba)	<2 ppm	Nitrogenous and phosphorated	Conform
Cadmium (Cd)	<2 ppm	Potassium (K)	<20 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<50 ppm
Chromium (Cr)	<2 ppm	Titanium (Ti)	<2 ppm
Cobalt (Co)	<2 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<10 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Vanadium (V)	<2 ppm
Lithium (Li)	<2 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<5 ppm	Aniline	<0.01%
Nickel (Ni)	<2 ppm		



Diphenylamine pure, redox indicator

packaging	product code
100 g Glass packaging	D/4600/48

C ₁₂ H ₁₁ N	ADR/RID: 6.1/II
CAS: 122-39-4	UN: 2811
MW: 169.23	HS-Nr: 29214400
Boiling point: 302°C	EINECS: 204-539-4
Boiling pressure: 760 mmHg	Risk: R23/24/25, R33, R50/53
Melting point: 52 to 54°C	Safety: S28A, S36/37, S45, S60, S61
Flash point: 152°C	

Guaranteed analysis

Melting Point tested 52 to 54°C



1.5-Diphenylcarbazide extra pure

SLR



packaging	product code
25 g Plastic jar	D/4750/46

C ₁₃ H ₁₄ N ₄ O	Melting point: 173 to 176°C
CAS: 140-22-7	HS-Nr: 29280000
MW: 242.28	EINECS: 205-403-7
Boiling pressure: 760 mmHg	Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Suitable for the determination of Chromium.

1.5-Diphenylcarbazone extra pure

SLR



packaging	product code
10 g Glass packaging	D/4850/45

C ₁₃ H ₁₂ N ₄ O	Melting point: 153 to 157°C
CAS: 538-62-5	HS-Nr: 29280000
MW: 240.27	EINECS: 208-698-0
Boiling pressure: 760 mmHg	Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Conforming to the IR spectrum of reference.

Reagent for the analysis of mercury.

Fisher Chemical packaging

A convenient and complete range
for a cleaner and safer world!


2.5-Diphenyloxazole

pure, Scintillation counting

packaging	product code
100 g Plastic jar	D/4865/48
$C_{15}H_{11}NO$ CAS: 92-71-7 MW: 221.26 Density at 20°C: 1.06 Boiling point: 360°C Boiling pressure: 760 mmHg Melting point: 70 to 72°C HS-Nr: 29349090 EINECS: 202-181-3 Safety: S24/25	

2.2'-Dipyridyl

for analysis

Certified AR



packaging	product code
5 g Plastic jar	D/5051/44
$C_{10}H_8N_2$ CAS: 366-18-7 MW: 156.19 Boiling point: 272 to 273°C Boiling pressure: 760 mmHg Melting point: 69 to 72°C Flash point: 121°C ADR/RID: 6.1/II UN: 2811 HS-Nr: 29333990 EINECS: 206-674-4 Risk: R20/21, R25, R36/37/38 Safety: S26, S36/37/39, S45	



Assay: >99.5%

Guaranteed analysis

Melting Point tested 70 to 72°C

Lot analysis on the label.

Disclosing tablets

pure

packaging	product code
1 Box 72 tablets	D/5100/99
HS-Nr: 38220000	



Dithio-oxamide

pure

packaging	product code
25 g Plastic jar	D/5150/46
$(CS.NH_2)_2$ CAS: 79-40-3 MW: 120.2 HS-Nr: 29309085 EINECS: 201-203-9 Risk: R22	

Guaranteed analysis

IR Analysis Conform

DMF See Dimethylformamide, page 90



DMSO See Dimethyl sulfoxide, page 92



n-Dodecane

extra pure

SLR



packaging	product code
100 mL Glass bottle	D/5290/05
2.5 L Glass bottle	D/5290/17
$C_{12}H_{26}$ CAS: 112-40-3 MW: 170.34 Density at 20°C: 0.75 Boiling point: 215 to 217°C Boiling pressure: 760 mmHg Melting point: -12°C Flash point: 71°C HS-Nr: 29011000 EINECS: 203-967-9 Risk: R65, R66 Safety: S36, S60, S62	



Assay (GC): >99%

1-Dodecanesulfonic acid sodium salt

for ion pair chromatography for electrochemical detection.

Certified



packaging	product code
5 g Plastic jar	D/5297/44
$C_{12}H_{25}NaO_3S$ CAS: 2386-53-0 MW: 272.38 Melting point: >300°C HS-Nr: 29041000 EINECS: 219-200-6 Safety: S24/25	

Assay: >98%

Guaranteed analysis

Electrochemical test Conform

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.005 M) .. <0.05 A.U.

Lot analysis on the label.

EC Specification:

tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-Oxidative

Electrode graphite

1-Dodecanesulfonic acid sodium salt

for ion pair chromatography

Certified



packaging	product code
5 g Plastic jar	D/5296/44
$C_{12}H_{25}NaO_3S$ CAS: 2386-53-0 MW: 272.38 Melting point: >300°C HS-Nr: 29041000 EINECS: 219-200-6 Safety: S24/25	

Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.005 M) .. <0.05 A.U.

Lot analysis on the label.

Dodecanoic acid See Lauric acid, page 143



Dodecanoyl peroxide See di-Lauroyl peroxide, page 143



Dodecyl Sodium Sulfate

See Sodium dodecyl sulfate, page 240



Dodecyl trimethyl ammonium bromide

for ion pair chromatography

Certified



packaging	product code
25 g Plastic jar	D/5311/46
$C_{15}H_{34}BrN$ CAS: 1119-94-4 MW: 308.35 Melting point: 246 °C HS-Nr: 29239000 EINECS: 214-290-3 Risk: R22, R36/37/38 Safety: S26, S37/39	

Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.05 A.U.

Lot analysis on the label.



DPX mounting medium

For microscopy

packaging	product code
100 mL Glass bottle	D/5319/05

ADR/RID: 3/III
UN: 1307
HS-Nr: 38220000

Risk: R11, R36/37/38
Safety: S16, S33

F+
Xn

Dysprosium standard metal solution 1000 ppm

for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLDY22Y
500 mL Plastic bottle	SPPLDY22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

EDTA

See Ethylenediaminetetraacetic acid, page 100

EDTA, disodium salt

See Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N), page 101

EDTA, trisodium salt

See Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N), page 101

EGTA

See 1.2-Di(2-aminoethoxy)ethane-N,N,N,N-tetraacetic acid, page 80

Ehrlich's Reagent

See 4-Dimethylaminobenzaldehyde, page 89

1,2-Epoxypropane

extra pure

SLR

packaging	product code
500 mL Coated Glass Bottle	E/0050/PB08
2.5 L Coated Glass Bottle	E/0050/PB17

C₃H₆O
CAS: 75-56-9
MW: 58.08
Density at 20°C: 0.83
Boiling point: 34°C
Boiling pressure: 760 mmHg
Melting point: -112°C
Flash point: -37°C

ADR/RID: 3/I
UN: 1280
HS-Nr: 29102000
EINECS: 200-879-2
Risk: R45, R46, R12, R20/21/22,
R36/37/38
Safety: S53, S45

F+
T

Assay (GC): >99%

Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



Erbium standard metal solution 1000 ppm

for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLER22Y
500 mL Plastic bottle	SPPLER22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Erbium standard metal solution 10 000 ppm

for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLER23Y
500 mL Plastic bottle	SPPLER23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Eriochrome black T C.I. 14645

pure, Metal indicator

packaging	product code
25 g Glass packaging	E/0100/46
100 g Glass packaging	E/0100/48

C₂₀H₁₂N₃NaO₇S
CAS: 1787-61-7
MW: 461.38
HS-Nr: 32041200

EINECS: 217-250-3
Risk: R36
Safety: S26, S39

Guaranteed analysis
IR Analysis Conform

Eriochrome blue-black R C.I. 15705

pure, Metal indicator

packaging	product code
25 g Glass Jar	E/0200/46

CAS: 2538-85-4
HS-Nr: 32041200
EINECS: 219-810-2

Guaranteed analysis
IR Analysis Conform

Eriochrome cyanine R C.I. 43820

pure, Metal indicator

packaging	product code
25 g Glass Jar	E/0250/46

C₂₃H₁₃Na₃O₉S
CAS: 3564-18-9
MW: 536.39

HS-Nr: 38220000
EINECS: 222-641-7
Safety: S24/25

Guaranteed analysis
IR Analysis Conform

Eschka's mixture for analysis

Certified AR



packaging	product code
500 g Plastic jar	E/0300/53

HS-Nr: 38220000

Guaranteed analysis

Insoluble Substances (HCl)	<0.005%	Total chloride (Cl)	<0.01%
Calcium (Ca)	<500 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<100 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<50 ppm		

Typical analysis

Magnesium oxide	65-67%	Sodium carbonate	33-35%
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Ethanal See Acetaldehyde, page 1



Ethanediol for analysis

Certified AR



packaging	product code
500 mL Glass bottle	E/0352/08
2.5 L Glass bottle	E/0352/17
2.5 L Coated Glass Bottle	E/0352/PB17
25 L Metal drum	E/0352/25
200 L Metal drum	E/0352/27

C₂H₆O₂
CAS: 107-21-1
MW: 62.07
Density at 20°C: 1.11
Boiling point: 196 to 198°C
Boiling pressure: 760 mmHg

Melting point: -13°C
Flash point: 116°C
HS-Nr: 29053100
EINECS: 203-473-3
Risk: R22

Xn

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Lead (Pb)	<1 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.5 ppm
Residue after ignition	<0.003%	Potassium (K)	<0.5 ppm
Water	<0.1%	Sodium (Na)	<2 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<1 ppm
Chlorine	<0.2 ppm	Total silicon (Si)	<0.2 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<0.5 ppm

Typical analysis

Aluminium (Al)	<0.2 ppm	Manganese (Mn)	<0.05 ppm
Barium (Ba)	<0.1 ppm	Molybdenum (Mo)	<0.05 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Strontium (Sr)	<0.05 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.05 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.05 ppm

For the glycerol determination.

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Ethanedionic acid See Oxalic acid dihydrate, page 181



Ethanol absolute for HPLC

Certified



packaging	product code
1 L Glass bottle	E/0665DF/15
2.5 L Glass bottle	E/0665DF/17

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0.79
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Water	<0.3%
Residue after evaporation	<10 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

210 nm	<0.6 A.U.	250 nm	<0.05 A.U.
220 nm	<0.3 A.U.	290 nm	<0.015 A.U.
230 nm	<0.125 A.U.	270 nm	<0.025 A.U.

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

Lot analysis on the label.

Filtered to 0.2 µm.

Ethanol absolute for analysis

Certified AR, Eur.Ph., BP, USP



packaging	product code
1 L Glass bottle	E/0650DF/15
2.5 L Glass bottle	E/0650DF/17
2.5 L Plastic bottle	E/0650DF/C17
5 L Metal can	E/0650DF/21
10 L Plastic drum	E/0650DF/24
25 L Metal drum	E/0650DF/25
205 L Metal drum	E/0650DF/28

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0.79
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Assay (GC): >99.8%

Guaranteed analysis

Acetone	<0.001%	Lead (Pb)	<0.05 ppm
Acidity (acetic acid)	<0.002%	Magnesium (Mg)	<0.05 ppm
Acidity / Alkalinity	<0.0001 meq/g	Potassium (K)	<0.5 ppm
Colour	<10 APHA	Sodium (Na)	<2 ppm
Residue after evaporation	<10 ppm	Total phosphorus (P)	<0.5 ppm
Substances darkened by (H ₂ SO ₄)	<10 APHA	Total silicon (Si)	<0.05 ppm
Substances reducing KMnO ₄	<0.0005%	Total sulphur (S)	<1 ppm
Water	<0.2%	Zinc (Zn)	<0.2 ppm
Calcium (Ca)	<0.5 ppm	Aldehydes	<0.002 %
Copper (Cu)	<0.05 ppm	Furfuraldehyde	<0.001 %
Iron (Fe)	<0.2 ppm	Methanol	<0.002 %
		Other IMP	<0.02
		Propan--2-ol	<0.003 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

see page 279 for suitable Tap & accessories.

Ethanol absolute extra pure

SLR



packaging	product code
1 L Glass bottle	E/0600DF/15
2.5 L Glass bottle	E/0600DF/17
2.5 L Plastic bottle	E/0600DF/C17
5 L Metal can	E/0600DF/21
25 L Metal drum	E/0600DF/25
25 L Plastic drum	E/0600DF/P25

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0.79
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Iron (Fe)	<2 ppm
Colour	<20 APHA	Lead (Pb)	<1 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<2 ppm
Substances darkened by (H ₂ SO ₄)	<20 APHA	Potassium (K)	<2 ppm
Substances		Sodium (Na)	<10 ppm
reducing KMnO ₄	<0.001%	Total phosphorus (P)	<2 ppm
Water	<0.5%	Total silicon (Si)	<1 ppm
Calcium (Ca)	<5 ppm	Total sulphur (S)	<5 ppm
Copper (Cu)	<1 ppm	Zinc (Zn)	<2 ppm

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

see page 279 for suitable Tap & accessories.

Ethanol for analysis

Certified AR, USP



packaging	product code
1 L Glass bottle	E/0550DF/15
2.5 L Glass bottle	E/0550DF/17
2.5 L Plastic bottle	E/0550DF/C17
5 L Metal can	E/0550DF/21
25 L Metal drum	E/0550DF/25

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0 to 0.813
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Assay: >95%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Total sulphur (S)	<2 ppm
Colour	<10 APHA	Zinc (Zn)	<0.2 ppm
Substances darkened by (H ₂ SO ₄)	<10 APHA	Acetone	<0.002%
Calcium (Ca)	<1 ppm	Acidity / alkalinity	<0.0005 meq/g
Copper (Cu)	<0.05 ppm	Furfuraldehyde	<0.001%
Iron (Fe)	<0.2 ppm	Methanol	<0.02%
Lead (Pb)	<0.05 ppm	Other impurities	<0.2 ppm
Magnesium (Mg)	<0.2 ppm	Propanol -2	<0.02 ppm
Potassium (K)	<0.1 ppm	Residue after evaporation	<10 ppm
Sodium (Na)	<2 ppm	Substances	
Total phosphorus (P)	<0.2 ppm	reducing permanganate	<0.0005%
Total silicon (Si)	<0.5 ppm	Sulfuric Colors (H ₂ SO ₄)	<10 APHA
		Propan -2-ol	<0.02%

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

see page 279 for suitable Tap & accessories.

Ethanol 96% v/v for analysis

Certified AR, Eur.Ph., BP, USP



packaging	product code
2.5 L Glass bottle	E/0555DF/17
2.5 L Plastic bottle	E/0555DF/C17
5 L Metal can	E/0555DF/21
25 L Metal drum	E/0555DF/25

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0.808 to 0.813
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Assay: >96%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Zinc (Zn)	<0.2 ppm
Colour	<10 APHA	Acetone	<0.002%
Substances darkened by (H ₂ SO ₄)	<10 APHA	Acidity / alkalinity	<0.0005 meq/g
Calcium (Ca)	<1 ppm	Furfuraldehyde	<0.001%
Copper (Cu)	<0.05 ppm	Methanol	<0.02%
Iron (Fe)	<0.2 ppm	Other impurities	<0.02 %
Lead (Pb)	<0.05 ppm	Propanol -2	<0.02 %
Magnesium (Mg)	<0.2 ppm	Residue after evaporation	<10 ppm
Potassium (K)	<0.1 ppm	Substances	
Sodium (Na)	<2 ppm	reducing permanganate	<0.0005%
Total phosphorus (P)	<0.2 ppm	Sulfuric Colors (H ₂ SO ₄)	<10 APHA
Total silicon (Si)	<0.5 ppm	Total sulphur (S)	<2 ppm
		Propan -2-ol	<0.02%

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

see page 279 for suitable Tap & accessories.

Ethanol 96% v/v extra pure

SLR



packaging	product code
2.5 L Glass bottle	E/0551DF/17
2.5 L Plastic bottle	E/0551DF/C17

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0.79
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Lead (Pb)	<1 ppm
Colour	<20 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<100 ppm	Potassium (K)	<2 ppm
Substances		Sodium (Na)	<10 ppm
reducing KMnO ₄	<0.001%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

Ethanol 95% v/v extra pure

SLR



packaging	product code
500 mL Glass bottle	E/0500DF/08
1 L Glass bottle	E/0500DF/15
2.5 L Glass bottle	E/0500DF/17
2.5 L Plastic bottle	E/0500DF/C17
5 L Plastic bottle	E/0500DF/P21
10 L Plastic drum	E/0500DF/P24

C₂H₅OH
CAS: 64-17-5
MW: 46.07
Density at 20°C: 0.79
Flash point: 12°C
ADR/RID: 3/II

UN: 1170
HS-Nr: 22071000
EINECS: 200-578-6
Risk: R11
Safety: S7, S16



Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Lead (Pb)	<1 ppm
Colour	<20 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<100 ppm	Potassium (K)	<2 ppm
Substances		Sodium (Na)	<10 ppm
reducing KMnO ₄	<0.001%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<2 ppm

The trade of absolute ethanol is subject to local regulation and additional excise duties apply.

Ethanolamine for analysis

Certified AR



packaging	product code
500 mL Glass bottle	E/0701/08
2.5 L Glass bottle	E/0701/17

C₂H₇NO
CAS: 141-43-5
MW: 61.09
Density at 20°C: 1.01
Boiling point: 170°C
Boiling pressure: 760 mmHg
Melting point: 10.3°C
Flash point: 85°C
ADR/RID: 8/III
UN: 2491
HS-Nr: 29221100
EINECS: 205-483-3
Risk: R20/21/22, R34
Safety: S26, S36/37/39, S45



Assay (GC): >99.5%

Guaranteed analysis

Colour	<10 APHA	Molybdenum (Mo)	<0.05 ppm
Residue after ignition	<0.005%	Nickel (Ni)	<0.05 ppm
Aluminium (Al)	<0.2 ppm	Potassium (K)	<0.5 ppm
Barium (Ba)	<0.05 ppm	Selenium (Se)	<0.05 ppm
Cadmium (Cd)	<0.05 ppm	Sodium (Na)	<5 ppm
Calcium (Ca)	<2 ppm	Strontium (Sr)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Tin (Sn)	<0.05 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.05 ppm
Copper (Cu)	<1 ppm	Total phosphorus (P)	<0.5 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<0.2 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<1 ppm
Lithium (Li)	<0.05 ppm	Vanadium (V)	<0.05 ppm
Magnesium (Mg)	<0.5 ppm	Zinc (Zn)	<1 ppm
Manganese (Mn)	<0.05 ppm		

Lot analysis on the label.

Ethanolamine extra pure

SLR



packaging	product code
500 mL Glass bottle	E/0700/08
2.5 L Glass bottle	E/0700/17
2.5 L Coated Glass Bottle	E/0700/PB17

C₂H₇NO
CAS: 141-43-5
MW: 61.09
Density at 20°C: 1.01
Boiling point: 170°C
Boiling pressure: 760 mmHg
Melting point: 10.3°C
Flash point: 85°C
ADR/RID: 8/III
UN: 2491
HS-Nr: 29221100
EINECS: 205-483-3
Risk: R20/21/22, R34
Safety: S26, S36/37/39, S45



Assay (GC): >99%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after ignition	<0.02%	Sodium (Na)	<20 ppm
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<1 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<2 ppm		

Ethenylbenzene

See Styrene stabilized with 10-15 ppm tert-butylcatechol, page 272



Ether petroleum

See Petroleum ether 30-40°C, page 188



2-Ethoxyethanol extra pure

SLR



packaging	product code
1 L Glass bottle	E/0750/15
2.5 L Glass bottle	E/0750/17
25 L Metal drum	E/0750/25

C₄H₁₀O₂
CAS: 110-80-5
MW: 90.12
Density at 20°C: 0.93
Boiling point: 135°C
Boiling pressure: 760 mmHg
Melting point: -100°C
Flash point: 44°C
ADR/RID: 3/III
UN: 1171
HS-Nr: 29094400
EINECS: 203-804-1
Risk: R60, R61, R10, R20/21/22
Safety: S53, S45



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<10 ppm
Water	<0.2%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm		

see page 279 for suitable Tap & accessories.

2-Ethoxyethyl acetate pure

packaging	product code
2.5 L Coated Glass Bottle	E/0800/PB17

C₆H₁₂O₃
CAS: 111-15-9
MW: 132.16
Density at 20°C: 0.97
Boiling point: 156°C
Boiling pressure: 760 mmHg
Melting point: -61°C
Flash point: 51°C
ADR/RID: 3/III
UN: 1172
HS-Nr: 29153980
EINECS: 203-839-2
Risk: R60, R61, R10, R20/21/22
Safety: S53, S45



Assay (GC): >98%

Ethyl acetate for HPLC

Certified



packaging	product code
1 L Glass bottle	E/0906/15
2.5 L Glass bottle	E/0906/17
2.5 L Coated Glass Bottle	E/0906/PB17
25 L Stainless steel drum	E/0906/2555
25 L Metal drum	E/0906/DH25
200 L Stainless steel drum	E/0906/2755

C₄H₈O₂
CAS: 141-78-6
MW: 88.11
Density at 20°C: 0.9
Boiling point: 75 to 77.5°C
Boiling pressure: 760 mmHg
Melting point: -83.5°C
Flash point: -4°C
ADR/RID: 3/II
UN: 1173
HS-Nr: 29153100
EINECS: 205-500-4
Risk: R11, R36, R66, R67
Safety: S16, S26, S33



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0015 meq/g	Water	<0.03%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

260 nm	<0.12 A.U.	280 nm	<0.005 A.U.
270 nm	<0.025 A.U.		

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Ethyl acetate for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	E/0903/15
2.5 L Glass bottle	E/0903/17

C₄H₈O₂
CAS: 141-78-6
MW: 88.11
Density at 20°C: 0.9
Boiling point: 75 to 77.5°C
Boiling pressure: 760 mmHg
Melting point: -83.5°C
Flash point: -4°C
ADR/RID: 3/II
UN: 1173
HS-Nr: 29153100
EINECS: 205-500-4
Risk: R11, R36, R66, R67
Safety: S16, S26, S33



Assay (GC): >99.8%

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.05%
GC (NPD) analysis	Conform		

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile: (1) 50°C, 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Ethyl acetate for analysis

Certified AR

packaging	product code
1 L Glass bottle	E/0900/15
2.5 L Glass bottle	E/0900/17
2.5 L Coated Glass Bottle	E/0900/PB17
2.5 L Plastic bottle	E/0900/PC17
5 L Metal can	E/0900/21
25 L Metal drum	E/0900/25
25 L Metal drum	E/0900/DH25
200 L Metal drum	E/0900/27

C₄H₈O₂
CAS: 141-78-6
MW: 88.11
Density at 20°C: 0.9
Boiling point: 75 to 77.5°C
Boiling pressure: 760 mmHg
Melting point: -83.5°C

Flash point: -4°C

ADR/RID: 3/II

UN: 1173

HS-Nr: 29153100

EINECS: 205-500-4

Risk: R11, R36, R66, R67

Safety: S16, S26, S33



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Potassium (K)	<0.5 ppm
Colour	<5 APHA	Sodium (Na)	<0.5 ppm
Residue after evaporation	<10 ppm	Total phosphorus (P)	<0.1 ppm
Substances darkened		Total silicon (Si)	<0.05 ppm
by (H ₂ SO ₄)	<10 APHA	Total sulphur (S)	<0.2 ppm
Substances		Zinc (Zn)	<0.1 ppm
reducing KMnO ₄	<0.0005%	Ethanol	<0.1 %
Water	<0.03%	Ethyl propanoate	<0.1 %
Copper (Cu)	<0.02 ppm	Iso-propyl acetate	<0.05 %
Iron (Fe)	<0.1 ppm	Methanol	<0.02 %
Lead (Pb)	<0.02 ppm	Methyl acetate	<0.02 %
Magnesium (Mg)	<0.05 ppm	N-acetate Propyle	<0.05 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Calcium (Ca)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Vanadium (V)	<0.01 ppm
Lithium (Li)	<0.01 ppm		

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Ethyl acetate extra pure

SLR

packaging	product code
1 L Glass bottle	E/0850/15
2.5 L Glass bottle	E/0850/17
2.5 L Coated Glass Bottle	E/0850/PB17
5 L Metal can	E/0850/21
10 L Metal drum	E/0850/24
25 L Metal drum	E/0850/25
200 L Metal drum	E/0850/27

C₄H₈O₂
CAS: 141-78-6
MW: 88.11
Density at 20°C: 0.9
Boiling point: 75 to 77.5°C
Boiling pressure: 760 mmHg
Melting point: -83.5°C

Flash point: -4°C

ADR/RID: 3/II

UN: 1173

HS-Nr: 29153100

EINECS: 205-500-4

Risk: R11, R36, R66, R67

Safety: S16, S26, S33



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Iron (Fe)	<2 ppm
Colour	<10 APHA	Lead (Pb)	<1 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<1 ppm
Substances darkened		Potassium (K)	<1 ppm
by (H ₂ SO ₄)	<20 APHA	Sodium (Na)	<2 ppm
Substances		Total phosphorus (P)	<1 ppm
reducing KMnO ₄	<0.001%	Total silicon (Si)	<1 ppm
Water	<0.05%	Total sulphur (S)	<1 ppm
Calcium (Ca)	<2 ppm	Zinc (Zn)	<1 ppm
Copper (Cu)	<1 ppm		

see page 279 for suitable Tap & accessories.

Ethyl acetoacetate extra pure

SLR

packaging	product code
500 mL Glass bottle	E/0950/08
2.5 L Glass bottle	E/0950/17

C₈H₁₀O₃
CAS: 141-97-9
MW: 130.15
Density at 20°C: 1.03
Boiling point: 180°C
Boiling pressure: 760 mmHg

Melting point: -45°C

Flash point: 70°C

HS-Nr: 29183000

EINECS: 205-516-1

Safety: S24/25

Assay (GC): >99%

Ethylamine pure, solution 70% w/w in water

packaging	product code
500 mL Glass bottle	E/1000/08

C₂H₇N
CAS: 75-04-7
MW: 45.9
Density at 20°C: 0.79 to 0.81
Boiling pressure: 760 mmHg
Flash point: -17°C

ADR/RID: 3 (8)/II

UN: 2270

HS-Nr: 29211990

EINECS: 200-834-7

Risk: R12, R36/37

Safety: S16, S26, S29



Ethyl benzoate extra pure

SLR

packaging	product code
500 mL Glass bottle	E/1100/08

C₉H₁₀O₂
CAS: 93-89-0
MW: 150.18
Density at 20°C: 1.05
Boiling point: 212°C
Boiling pressure: 760 mmHg

Melting point: -34°C

Flash point: 84°C

HS-Nr: 29163100

EINECS: 202-284-3

Safety: S24/25

Assay (GC): >99%

Ethyl bromide See Bromoethane, page 43



Ethyl bromoacetate pure

packaging	product code
100 mL Coated Glass Bottle	E/1130/PB05

C₄H₇BrO₂
CAS: 105-36-2
MW: 167
Density at 20°C: 1.51
Boiling point: 159°C
Boiling pressure: 760 mmHg
Melting point: -38°C

Flash point: 47°C

ADR/RID: 3(6.1)/II

UN: 1603

HS-Nr: 29159090

Risk: R26/27/28

Safety: S7/9, S26, S45



Assay: >95%

Ethyl digol See Diethylene glycol monoethyl ether, page 85



Ethylenecarboxamide *See Acrylamide, page 11*



Ethylenediaminetetraacetic acid for analysis, EDTA

Certified AR



packaging	product code
100 g Plastic jar	D/0452/48
250 g Plastic jar	D/0452/50

$C_{10}H_{16}N_2O_8$
CAS: 60-00-4
MW: 292.25

Melting point: 237-245°C

HS-Nr: 29224980
EINECS: 200-449-4
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Loss on drying	<0.1%	Sodium (Na)	<200 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.02 %
Copper (Cu)	<5 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<50 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Ethylenediaminetetraacetic acid extra pure, EDTA

SLR



packaging	product code
250 g Plastic jar	D/0450/50
500 g Plastic jar	D/0450/53
10 kg Plastic screw top Keg	D/0450/68

$C_{10}H_{16}N_2O_8$
CAS: 60-00-4
MW: 292.25

Melting point: 237-245°C

HS-Nr: 29224980
EINECS: 200-449-4
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<1000 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.1%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<100 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<200 ppm	Zinc (Zn)	<100 ppm

Ethylenediaminetetraacetic acid diammonium salt extra pure

SLR



packaging	product code
100 g Plastic jar	D/0500/48
25 kg Plastic screw top Keg	D/0500/70

$(CH_2N(CH_2COOH))_2$
 $CH_2COONH_4)_2 \cdot aq.$

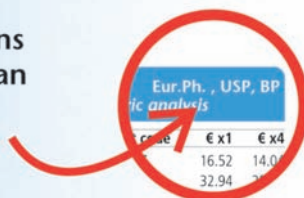
CAS: 20824-56-0
HS-Nr: 29224980
EINECS: 244-063-4

Guaranteed analysis

IR Analysis Conform

The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266



Ethylenediaminetetraacetic acid disodium salt solution 0.2N **NEW SPEC.** HPLC for electrochemical detection

Certified



packaging	product code
2.5 L Plastic bottle	J/3710/17



Melting point: 237 to 245°C

HS-Nr: 29224980

Risk: R22, R36/37/38

Safety: S26, S37/39

Guaranteed analysis

Electrochemical test Conform Value between 0.999 to 1.001

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Ethylenediaminetetraacetic acid disodium salt dihydrate for analysis

Certified AR, Eur.Ph., BP



packaging	product code
100 g Plastic jar	D/0700/48
250 g Plastic jar	D/0700/50
500 g Plastic jar	D/0700/53
1 kg Plastic jar	D/0700/60
10 kg Plastic screw top Keg	D/0700/68
25 kg Fibre Keg	D/0700/70

$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$

CAS: 6381-92-6

MW: 372.24

Melting point: 252 °C

HS-Nr: 29224995

EINECS: 205-358-3

Risk: R36/37/38

Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	4 to 5	Potassium (K)	<10 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.005 %
Copper (Cu)	<2 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Ethylenediaminetetraacetic acid disodium salt dihydrate extra pure

SLR



packaging	product code
100 g Plastic jar	D/0650/48
250 g Plastic jar	D/0650/50
500 g Plastic jar	D/0650/53
1 kg Plastic jar	D/0650/60
5 kg Plastic screw top Keg	D/0650/65
25 kg Fibre Keg	D/0650/70

$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$

CAS: 6381-92-6

MW: 372.24

Melting point: 252 °C

HS-Nr: 38220000

EINECS: 205-358-3

Risk: R36/37/38

Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<1000 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<50 ppm		

Ethylenediaminetetraacetic acid disodium salt solution 0.01M (0.02N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/3720/PB15
2.5 L Plastic bottle	J/3720/17

Melting point: 237 to 245°C

HS-Nr: 29224990

Risk: R22, R36/37/38

Safety: S26, S37/39

Manufactured to a tolerance of $\pm 0.3\%$.

See the full range of Standard Volumetric solution page 266.



Ethylenediaminetetraacetic acid disodium salt solution 0.01M (0.02N) **NEW SPEC.** NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/3720C/05
6 ampoule	J/3720C/90

Melting point: 237 to 245°C

HS-Nr: 38220000

Risk: R22, R36/37/38

Safety: S26, S37/39

Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.



Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

Eur.Ph. , BP

packaging	product code
1 L Plastic bottle	J/3700/15
2.5 L Plastic bottle	J/3700/17
10 L Cubitainer	J/3700/24

Melting point: 237 to 245°C

HS-Nr: 38220000

Risk: R22, R36/37/38

Safety: S26, S37/39

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.



Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N) **NEW SPEC.** NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/3700C/05
6 ampoule	J/3700C/90

Melting point: 237 to 245°C

HS-Nr: 38220000

Risk: R22, R36/37/38

Safety: S26, S37/39

Each ampoule makes 500 mL of solution.

See the full range of Standard Volumetric solution page 266.



Ethylenediaminetetraacetic acid dipotassium salt dihydrate **SLR** extra pure

packaging	product code
500 g Plastic jar	D/0600/53
25 kg Plastic drum	D/0600/70

 $C_{10}H_{14}K_2N_2O_8 \cdot 2H_2O$

CAS: 25102-12-9

MW: 404.47

Melting point: 272 °C

HS-Nr: 29224980

EINECS: 217-895-0

Risk: R36/37/38

Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<1000 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Sodium (Na)	<2000 ppm		

Ethylenediaminetetraacetic acid tetrasodium salt **SLR** extra pure

packaging	product code
250 g Plastic jar	D/0750/50

 $C_{10}H_{12}N_2O_8 \cdot 4Na \cdot 4H_2O$

CAS: 64-02-8

MW: 452.24

HS-Nr: 29224980

EINECS: 200-573-9

Risk: R36/38

Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

pH (aqueous solution 5%)	10 to 11.5	Lead (Pb)	<20 ppm
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.1%

Ethylene dibromide See 1.2-Dibromoethane, page 80



Ethylene dichloride See 1.2-Dichloroethane, page 82



(Ethylenedinitrilo)tetraacetic acid, disodium salt

See Ethylenediaminetetraacetic acid disodium salt solution 0.01M (0.02N)

Ethanediol **SLR** extra pure

packaging	product code
500 mL Plastic bottle	E/0350/PB08
1 L Glass bottle	E/0350/15
2.5 L Glass bottle	E/0350/17
2.5 L Plastic bottle	E/0350/PB17
25 L Metal drum	E/0350/25

 $C_2H_6O_2$

CAS: 107-21-1

MW: 62.07

Density at 20°C: 1.11

Boiling point: 196 to 198°C

Boiling pressure: 760 mmHg

Melting point: -13°C

Flash point: 116°C

HS-Nr: 29036100

EINECS: 203-473-3

Risk: R22



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after ignition	<0.01%	Sodium (Na)	<10 ppm
Water	<0.5%	Total phosphorus (P)	<5 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<10 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<5 ppm		

see page 279 for suitable Tap & accessories.

NIST Certified Standard from SPEX

A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS

Discover them on page 258



Ethylene glycol ethyl ether

See 2-Ethoxyethanol, page 98



Ethylene glycol monobutyl ether

See 2-n-Butoxyethanol, page 51



Ethylene glycol monoethyl ether acetate

See 2-Ethoxyethyl acetate, page 98



Ethylene glycol monomethyl ether

See 2-Methoxyethanol, page 164



Ethyl iodide

See Iodoethane, page 130

Ethyl lactate
extra pure

SLR



packaging	product code
2.5 L Glass bottle	E/1400/17

$\text{CH}_3\text{CH}(\text{OH})\text{COO}\cdot\text{C}_2\text{H}_5$
 CAS: 97-64-3
 MW: 118.14
 Density at 20°C: 1.03
 Flash point: 46°C
 ADR/RID: 3/III

UN: 1192
 HS-Nr: 29181100
 EINECS: 202-598-0
 Risk: R10
 Safety: S23C

Assay (GC): >98%

Guaranteed analysis

Residue after evaporation <100 ppm

Ethyl methyl ketone
for analysis

Certified AR



packaging	product code
1 L Glass bottle	E/1455/15
2.5 L Glass bottle	E/1455/17
2.5 L Coated Glass Bottle	E/1455/PB17
25 L Metal drum	E/1455/25
200 L Metal drum	E/1455/27

$\text{C}_4\text{H}_8\text{O}$
 CAS: 78-93-3
 MW: 72.11
 Density at 20°C: 0.81
 Boiling point: 80°C
 Boiling pressure: 760 mmHg
 Melting point: -87°C

Flash point: -7°C
 ADR/RID: 3/II
 UN: 1193
 HS-Nr: 29141200
 EINECS: 201-159-0
 Risk: R11, R36, R66, R67
 Safety: S9, S16



Assay (GC): >99.5%

Guaranteed analysis

Acetone	<0.2%	Sodium (Na)	<0.5 ppm
Acidity / Alkalinity	<0.0005 meq/g	Total phosphorus (P)	<0.1 ppm
Colour	<10 APHA	Total silicon (Si)	<0.02 ppm
Residue after evaporation	<10 ppm	Total sulphur (S)	<0.2 ppm
Water	<0.1%	Zinc (Zn)	<0.1 ppm
Calcium (Ca)	<0.2 ppm	2-Methylpropan--2-ol	<0.1 %
Copper (Cu)	<0.02 ppm	Butan -2-ol	<0.02 %
Iron (Fe)	<0.1 ppm	Butyl acetate	<0.05 %
Lead (Pb)	<0.02 ppm	Di-n-butyl ether	<0.05 %
Magnesium (Mg)	<0.05 ppm	Ethyl acetate	<0.05 %
Potassium (K)	<0.5 ppm	Methanol	<0.05 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Ethyl methyl ketone
extra pure

SLR



packaging	product code
1 L Glass bottle	E/1450/15
2.5 L Glass bottle	E/1450/17
2.5 L Coated Glass Bottle	E/1450/PB17
5 L Metal can	E/1450/21
25 L Metal drum	E/1450/25
200 L Metal drum	E/1450/27

$\text{C}_4\text{H}_8\text{O}$
 CAS: 78-93-3
 MW: 72.11
 Density at 20°C: 0.81
 Boiling point: 80°C
 Boiling pressure: 760 mmHg
 Melting point: -87°C

Flash point: -7°C
 ADR/RID: 3/II
 UN: 1193
 HS-Nr: 29141200
 EINECS: 201-159-0
 Risk: R11, R36, R66, R67
 Safety: S9, S16



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Magnesium (Mg)	<1 ppm
Colour	<20 APHA	Potassium (K)	<1 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<2 ppm
Water	<0.2%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<2 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<1 ppm
Lead (Pb)	<2 ppm		

see page 279 for suitable Tap & accessories.

Ethyl oleate
pure, for saponification

packaging	product code
500 mL Glass bottle	E/1460/08

$\text{C}_{20}\text{H}_{38}\text{O}_2$
 CAS: 111-62-6
 MW: 310.52
 Density at 20°C: 0.86
 Boiling point: 190 to 210°C

Boiling pressure: 7 mmHg
 Flash point: 160°C
 HS-Nr: 29161500
 EINECS: 203-889-5
 Safety: S24/25

Assay: 98 to 103%

Guaranteed analysis

Iodine index 75 - 84

Euparal mountant
For microscopy

packaging	product code
100 mL Glass bottle	E/1500/05

ADR/RID: 3/III
 UN: 1993
 HS-Nr: 33019090

Risk: R10
 Safety: S23, S24/25

Europium standard metal solution 1000 ppm
for ICP solution in HNO_3 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLEU22Y
500 mL Plastic bottle	SPPLEU22X

Density at 20°C: 1
 Risk: R34
 Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
 All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
 See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Fast Green FCF C.I. 42053

pure, indicator grade

packaging	product code
25 g Glass packaging	F/P025/46
$C_{37}H_{34}N_2Na_2O_{10}S_3$ CAS: 2353-45-9 MW: 808.85 Melting point: 290 °C	HS-Nr: 32041900 EINECS: 219-091-5 Risk: R20/21/22, R40 Safety: S25, S37/39
Xn	
Guaranteed analysis	
IR Analysis Conform	

Fehling's solution No. 1

pure, to B.P. 1988

packaging	product code
1 L Plastic bottle	J/3800/15
2.5 L Plastic bottle	J/3800/17
HS-Nr: 38220000	

Assay: 6.85 to 7.05%

Fehling's solution 1 and 2 are to be mixed in equal volumes before use.
1 mL is equivalent to 5 mg glucose.

Fehling's solution No. 2

pure, to B.P. 1988

packaging	product code
1 L Plastic bottle	J/3900/15
2.5 L Plastic bottle	J/3900/17
ADR/RID: 8/II UN: 1719 HS-Nr: 38220000	Risk: R35 Safety: S26, S37/39, S45

Guaranteed analysis

Molarity 3.75 to 3.95 M

Fehling's solution 1 and 2 are to be mixed in equal volumes before use.
1 mL is equivalent to 5 mg glucose.

Fehling's solution No. 1

pure, to Lane and Eynon modification

packaging	product code
1 L Plastic bottle	J/3910/PB15
2.5 L Glass bottle	J/3910/17
HS-Nr: 38220000	

Assay: 6.85 to 7.1%

Fehling's solution 1 and 2 are to be mixed in equal volumes before use.

Fehling's solution No. 2

pure, to Lane and Eynon modification

packaging	product code
1 L Plastic bottle	J/3920/PB15
2.5 L Plastic bottle	J/3920/17
ADR/RID: 8/II UN: 1719 HS-Nr: 38220000	Risk: R35 Safety: S26, S37/39, S45

Guaranteed analysis

Molarity 2.4 to 2.6 M

Fehling's solution 1 and 2 are to be mixed in equal volumes before use.

Ficodox® mixed COD reagent

pure

packaging	product code
2.5 L Coated Glass Bottle	J/4000/PB17
ADR/RID: 8/II UN: 1830 HS-Nr: 28070010	Risk: R35 Safety: S26, S30, S45

Guaranteed analysis

Dichromate demand (ml FeSO) <2 mL

COD Test Reagents

Ficodox meets the DOE/NWC Standing Committee of Analyst publication "Method for the Examination of Waters and Associated Materials"- Chemical Oxygen Demand (Dichromate value) of Polluted and Waste Waters- HMSO 1977.

Ficodox® Plus mixed COD reagent

pure

packaging	product code
1 L Glass bottle	J/4010/15
2.5 L Coated Glass Bottle	J/4010/PB17
ADR/RID: 8/II UN: 1830 HS-Nr: 28070010	Risk: R35 Safety: S26, S30, S45

Guaranteed analysis

Dichromate demand (ml FeSO) <2 mL

COD Test reagents. Avoids the use of Mercury salt.

"Ficodox Plus" meets the DOE/NWC Standing Committee of Analyst publication "Method for the Examination of Waters and Associated Materials"- Chemical Oxygen Demand (Dichromate value) of Polluted and Waste Waters 1986(Second Edition) available from HMSO for the estimation of COD without the use of mercury salts.

Florisil®

For chromatography, about 100-200 U.S. Mesh

packaging	product code
250 g Plastic jar	F/1173/50
HS-Nr: 25120000	

Florisil® is a registered trade name of Floridin company.

Florisil®

For chromatography, about 60-100 U.S. Mesh

packaging	product code
250 g Plastic jar	F/1170/50
HS-Nr: 25120000	

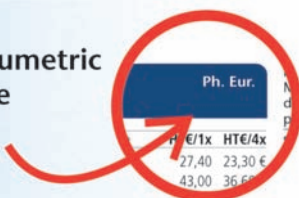
Florisil® is a registered trade name of Floridin company.

Fluorescamine

pure

packaging	product code
100 mg Glass tube	F/1198/40
$C_{17}H_{10}O_4$ CAS: 38183-12-9 MW: 278.26 Melting point: 155 to 157°C	HS-Nr: 29329090 EINECS: 253-814-5 Safety: S24/25
Guaranteed analysis	
IR Analysis Conform	

Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia
Read more on page 191



Save money!
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Fluorescein C.I. 45350 pure

packaging	product code
25 g Glass packaging	F/1200/46
100 g Glass packaging	F/1200/48

$C_{20}H_{12}O_5$ HS-Nr: 32041200
 CAS: 2321-07-5 EINECS: 219-031-8
 MW: 332.31 Risk: R36, R43
 Melting point: 314 to 316°C Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Fluorescein sodium pure

packaging	product code
100 g Glass Jar	F/1300/48
500 g Glass Jar	F/1300/53

$C_{20}H_{10}Na_2O_5$ HS-Nr: 32041200
 CAS: 518-47-8 EINECS: 208-253-0
 MW: 376.28 Risk: R36
 Melting point: 320°C Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Fluorescein di-(methylimino diacetic acid) sodium salt pure, Metal indicator (Calcein)

packaging	product code
5 g Glass Jar	F/1250/44

$C_{30}H_{26}N_2O_{13}$ HS-Nr: 29329090
 CAS: 1461-15-0 EINECS: 215-957-1
 MW: 622.54 Risk: R20/21/22, R36/37/38
 Melting point: 200°C Safety: S26, S36/37/39



Guaranteed analysis

IR Analysis Conform

Fluoride standard 10 ppm For Ion chromatography in H_2O , NIST certified



packaging	product code
100 mL Plastic bottle	SPASF91AY
500 mL Plastic bottle	SPASF91AX

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.

Fluoride standard 100 ppm For Ion chromatography in H_2O , NIST certified



packaging	product code
100 mL Plastic bottle	SPASF91Y
500 mL Plastic bottle	SPASF91X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.

Fluoride standard solution 1000 ppm (1 mg/ml) for Ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4548/05

Density at 20°C: 1

HS-Nr: 38220000

Manufactured to a tolerance of $\pm 1\%$.

Fluoride standard 1000 ppm For Ion chromatography in H_2O , NIST certified



packaging	product code
100 mL Plastic bottle	SPASF92Y
500 mL Plastic bottle	SPASF92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.3\%$.

Fluoroboric acid 50% solution in HF_4 Technical

packaging	product code
500 mL Plastic bottle	F/1350/08

HF_4 ADR/RID: 8/II
 CAS: 16872-11-0 UN: 1775
 MW: 87.81 HS-Nr: 28111900
 Density at 20°C: 1.31 g EINECS: 240-898-3



Fluorosilicic acid Technical

packaging	product code
500 mL Plastic bottle	F/1400/08

H_2F_6Si UN: 1778
 CAS: 16961-83-4 HS-Nr: 28111900
 MW: 144.09 EINECS: 241-034-8
 Density at 20°C: 1.27 Risk: R34
 ADR/RID: 8/II Safety: S26, S27, S45



Folin & Ciocalteu's phenol reagent pure

packaging	product code
500 mL Glass bottle	J/4100/08

HS-Nr: 38220000
 Risk: R36/38
 Safety: S26, S28



Contains 10% v/v HCl and 5% V/V H₃PO₄.

Formaldehyde solution 37-41% extra pure

SLR



packaging	product code
500 mL Plastic bottle	F/1501/PB08
1 L Plastic bottle	F/1501/PB15
2.5 L Plastic bottle	F/1501/PB17
25 L Metal drum	F/1501/25

CH_2O UN: 1198
 CAS: 50-00-0 HS-Nr: 29121100
 MW: 30.03 EINECS: 200-001-8
 Density at 20°C: 1.075 to 1.09 Risk: R23/24/25, R43, R34, R40
 ADR/RID: 3(8)/III Safety: S26, S36/37, S45, S51



Assay: 37 to 41%

Guaranteed analysis

Acidity / Alkalinity	<0.01 meq/g	Total chloride (Cl)	<0.001%
Colour	<10 APHA	Total phosphorus (P)	<0.5 ppm
Calcium (Ca)	<10 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<0.5 ppm	Total sulphur (S)	<20 ppm
Iron (Fe)	<1 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<0.5 ppm	Methanol	10 to 14%
Magnesium (Mg)	<5 ppm	Other IMP.	No reaction
Potassium (K)	<1 ppm		

see page 279 for suitable Tap & accessories.

Formaldehyde solution (stabilized in methanol)

Technical

packaging	product code
2.5 L Plastic bottle	F/1451/PB17
25 L Metal drum	F/1451/25

H.CHO
CAS: 50-00-0
MW: 30.03
Density at 20°C: 1.07 to 1.09
ADR/RID: 3(8)/III

UN: 1198
HS-Nr: 29121100
EINECS: 200-001-8
Risk: R23/24/25, R43, R34, R40
Safety: S26, S36/37, S45, S51



Assay: 37 to 41%

Guaranteed analysis

Acidity / Alkalinity	<0.05 meq/g	Sodium (Na)	<50 ppm
Colour	<20 APHA	Total chloride (Cl)	<0.005%
Calcium (Ca)	<50 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<10 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<20 ppm	Methanol	10 to 14%
Potassium (K)	<5 ppm		

see page 279 for suitable Tap & accessories.

Formaldehyde dimethyl acetal

See Dimethoxymethane, page 88



Formaldehyde solution

pure, 10% phosphate buffered

packaging	product code
5 L Plastic bottle	F/1520/21

HS-Nr: 29121100
Risk: R40, R43
Safety: S26, S36/37, S45, S51



Guaranteed analysis

At pH 25°C 7.2 to 7.4

Formaldehyde solution saline

pure, phosphate buffered pH 7.3

packaging	product code
25 L Metal drum	F/1515/25

Density at 20°C: 1
HS-Nr: 38220000
Risk: R40, R43
Safety: S26, S36/37, S45, S51



Guaranteed analysis

At pH 20°C 7.25 to 7.35

see page 279 for suitable Tap & accessories.

Formaldehyde solution

pure, 10% w/v in 0.9% sodium chloride solution

packaging	product code
5 L Plastic bottle	F/1510/21

HS-Nr: 29121100
Risk: R40, R43
Safety: S26, S36/37, S45, S51



Guaranteed analysis

Sodium chloride 0.8 to 1% Formaldehyde 9 to 11%

pH Buffers

NIST Certified Standard
Solution & Concentrate
A full range to discover on page 45



Formamide

for analysis

Certified AR



packaging	product code
500 mL Coated Glass Bottle	F/1551/PB08
2.5 L Coated Glass Bottle	F/1551/PB17
200 L Metal drum	F/1551/27

CH₃NO
CAS: 75-12-7
MW: 45.04
Density at 20°C: 1.13
Boiling point: 210°C
Boiling pressure: 760 mmHg

Melting point: 2 to 3°C
Flash point: 175°C
HS-Nr: 29121100
Risk: R61
Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Colour	<10 APHA	Lead (Pb)	<0.5 ppm
Residue after ignition	<0.5%	Magnesium (Mg)	<5 ppm
Water	<0.1%	Potassium (K)	<5 ppm
Ammonium formate (H.COO.NH ₄)	<0.1 %	Sodium (Na)	<2 ppm
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<0.5 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<0.5 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<1 ppm
		Zinc (Zn)	<2 ppm

Typical analysis

Aluminium (Al)	<0.2 ppm	Manganese (Mn)	<0.1 ppm
Barium (Ba)	<0.2 ppm	Molybdenum (Mo)	<0.1 ppm
Cadmium (Cd)	<0.1 ppm	Nickel (Ni)	<0.1 ppm
Chromium (Cr)	<0.2 ppm	Strontium (Sr)	<0.1 ppm
Cobalt (Co)	<0.1 ppm	Titanium (Ti)	<0.1 ppm
Formic acid (H. COOH)	<0.02 %	Vanadium (V)	<0.1 ppm
Lithium (Li)	<0.1 ppm		

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Formamide

extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	F/1550/PB08
2.5 L Coated Glass Bottle	F/1550/PB17

CH₃NO
CAS: 75-12-7
MW: 45.04
Density at 20°C: 1.13
Boiling point: 210°C
Boiling pressure: 760 mmHg

Melting point: 2 to 3°C
Flash point: 175°C
HS-Nr: 29121100
EINECS: 200-842-0
Risk: R61
Safety: S53, S45



Assay (GC): >99%

Guaranteed analysis

Colour	<20 APHA	Magnesium (Mg)	<20 ppm
Residue after ignition	<1000%	Potassium (K)	<20 ppm
Water	<0.5%	Sodium (Na)	<50 ppm
Calcium (Ca)	<50 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<2 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm

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Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Formic acid for analysis

Certified AR



packaging	product code
500 mL Coated Glass Bottle	F/1900/PB08
1 L Coated Glass Bottle	F/1900/PB15
2.5 L Coated Glass Bottle	F/1900/PB17
25 L Metal drum	F/1900/25

CH₂O₂
CAS: 64-18-6
MW: 46.02
Density at 20°C: 1.22
Boiling point: 101°C
Boiling pressure: 760 mmHg
Melting point: 8°C

Flash point: 69°C
ADR/RID: 3(8)/II
UN: 1779
HS-Nr: 29151100
EINECS: 200-579-1
Risk: R35
Safety: S23, S26, S45

Assay: >98%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.5 ppm
Calcium (Ca)	<2 ppm	Sodium (Na)	<1 ppm
Chromium (Cr)	<0.05 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<0.05 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<0.5 ppm	Total phosphorus (P)	<5 ppm
Lead (Pb)	<0.05 ppm	Total silicon (Si)	<2 ppm
Magnesium (Mg)	<0.1 ppm	Total sulphur (S)	<10 ppm
Nickel (Ni)	<0.05 ppm	Zinc (Zn)	<0.1 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.05 ppm	Silver (Ag)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Manganese (Mn)	<0.02 ppm		

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Formic acid for analysis

Certified AR



packaging	product code
500 mL Plastic bottle	F/1820/PB08
2.5 L Plastic bottle	F/1820/PB17

CH₂O₂
CAS: 64-18-6
MW: 46.03
Density at 20°C: 1.22
Boiling point: 101°C
Boiling pressure: 760 mmHg
Melting point: 8°C

Flash point: 69°C
ADR/RID: 3(8)/II
UN: 1779
HS-Nr: 29151100
EINECS: 200-579-1
Risk: R35
Safety: S23, S26, S45

Assay: 89 to 91%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.5 ppm
Calcium (Ca)	<2 ppm	Sodium (Na)	<2 ppm
Chromium (Cr)	<0.05 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<0.1 ppm	Total nitrogen (N)	<200 ppm
Iron (Fe)	<0.5 ppm	Total phosphorus (P)	<5 ppm
Lead (Pb)	<0.05 ppm	Total silicon (Si)	<2 ppm
Magnesium (Mg)	<0.1 ppm	Total sulphur (S)	<10 ppm
Nickel (Ni)	<0.05 ppm	Zinc (Zn)	<0.1 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Mercury (Hg)	<0.05 ppm
Barium (Ba)	<0.05 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Silver (Ag)	<0.02 ppm
Cobalt (Co)	<0.05 ppm	Strontium (Sr)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Manganese (Mn)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Formic acid extra pure, min.98%

SLR



packaging	product code
500 mL Coated Glass Bottle	F/1850/PB08
2.5 L Coated Glass Bottle	F/1850/PB17
200 L Metal drum	F/1850/27

CH₂O₂
CAS: 64-18-6
MW: 46.02
Density at 20°C: 1.22
Boiling point: 101°C
Boiling pressure: 760 mmHg
Melting point: 8°C

Flash point: 69°C
ADR/RID: 3(8)/II
UN: 1779
HS-Nr: 29151100
EINECS: 200-579-1
Risk: R35
Safety: S23, S26, S45

Assay: >98%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<2 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<10 ppm
Chromium (Cr)	<0.5 ppm	Total chloride (Cl)	<0.002%
Copper (Cu)	<2 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<1 ppm	Zinc (Zn)	<0.5 ppm
Nickel (Ni)	<0.5 ppm		

see page 279 for suitable Tap & accessories.

Formic acid extra pure

SLR



packaging	product code
500 mL Plastic bottle	F/1800/PB08
2.5 L Plastic bottle	F/1800/PB17
200 L Metal drum	F/1800/27

CH₂O₂
CAS: 64-18-6
MW: 46.02
Density at 20°C: 1.22
Boiling point: 101°C
Boiling pressure: 760 mmHg
Melting point: 8°C

Flash point: 69°C
ADR/RID: 3(8)/II
UN: 1779
HS-Nr: 38220000
EINECS: 200-579-1
Risk: R35
Safety: S23, S26, S45

Assay: 89 to 91%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<2 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<10 ppm
Chromium (Cr)	<0.5 ppm	Total chloride (Cl)	<0.002%
Copper (Cu)	<2 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<1 ppm	Zinc (Zn)	<0.5 ppm
Nickel (Ni)	<0.5 ppm		

see page 279 for suitable Tap & accessories.

Formic acid about 85% pure

packaging	product code
1 L Plastic bottle	F/1750/PB15
2.5 L Plastic bottle	F/1750/PB17
25 L Metal drum	F/1750/25

CH₂O₂
CAS: 64-18-6
MW: 46.02
Density at 20°C: 1.194 to 1.196
Boiling point: 101°C
Boiling pressure: 760 mmHg
Melting point: 8°C

Flash point: 69°C
ADR/RID: 3(8)/II
UN: 1779
HS-Nr: 29121100
EINECS: 200-579-1
Risk: R35
Safety: S23, S26, S45

Assay: 84 to 86%

see page 279 for suitable Tap & accessories.

Formic acid solution 0.25M for HPLC

Certified



packaging	product code
500 mL Coated Glass Bottle	J/4200/PB08

HS-Nr: 29151100
Safety: S24/25

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Drift in the baseline <40 U Anson Gradient (max eluted peak)<0.005 mA.U.

Molarity between 0.24 and 0.25 mol / L

Fumaric acid extra pure

SLR



packaging	product code
500 g Plastic jar	F/2070/53

C₄H₄O₄
CAS: 110-17-8
MW: 116.07
Density at 20°C: 1.62
Boiling pressure: 760 mmHg
Melting point: 295-300°C

Flash point: 230°C
HS-Nr: 29171990
EINECS: 203-743-0
Risk: R36
Safety: S26



Assay: >99%

Formol See Formaldehyde solution 37-41%, page 104



D(-)-Fructose for analysis

Certified AR



packaging	product code
100 g Plastic jar	F/1952/48
500 g Plastic jar	F/1952/53
1 kg Plastic jar	F/1952/60

C₆H₁₂O₆
CAS: 57-48-7
MW: 180.16
Boiling pressure: 760 mmHg

Melting point: 103-105°C
HS-Nr: 17025000
EINECS: 200-333-3
Safety: S24/25

Guaranteed analysis

Loss on drying <0.5%	Potassium (K) <10 ppm
Specific rotation (α 20/D) ... +92° to -90°	Sodium (Na) <50 ppm
Calcium (Ca) <10 ppm	Total chloride (Cl) <0.001 %
Copper (Cu) <1 ppm	Total phosphorus (P) <20 ppm
Iron (Fe) <1 ppm	Total silicon (Si) <5 ppm
Lead (Pb) <1 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <5 ppm	Zinc (Zn) <2 ppm

Typical analysis

Aluminium (Al) <2 ppm	Lithium (Li) <1 ppm
Arsenic (As) <1 ppm	Manganese (Mn) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Titanium (Ti) <1 ppm
Chromium (Cr) <1 ppm	Vanadium (V) <1 ppm
Cobalt (Co) <1 ppm	

Lot analysis on the label.

D(-)-Fructose pure

packaging	product code
250 g Plastic jar	F/1950/50

C₆H₁₂O₆
CAS: 57-48-7
MW: 180.16
Boiling pressure: 760 mmHg

Melting point: 103-105°C
HS-Nr: 17025000
EINECS: 200-333-3
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Full range indicator, pH range 1-13 for pH measurement

packaging	product code
100 mL Coated Glass Bottle	U/0025/PB05
500 mL Coated Glass Bottle	U/0025/PB08

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R11, R20/21/22,
R40/20/21/22

Safety: S7, S16, S36/37, S45



Furfuraldehyde technical

packaging	product code
2.5 L Coated Glass Bottle	F/2080/PB17

C₅H₄O₂
CAS: 98-01-1
MW: 96.09
Density at 20°C: <1.16
Boiling point: 161 to 162°C
Boiling pressure: 760 mmHg
Melting point: -36°C

Flash point: 60°C
ADR/RID: 3(6.1)/II
UN: 1199
HS-Nr: 29321200
EINECS: 202-627-7
Risk: R21, R23/25, R36/37, R40
Safety: S26, S36/37/39, S45



2.5-Furandione See Maleic anhydride, page 154



Furfural See Furfuraldehyde, page 107



Fusion mixture for analysis

Certified AR



packaging	product code
500 g Plastic jar	F/2250/53
1 kg Plastic jar	F/2250/60

K₂CO₃·Na₂CO₃
HS-Nr: 38220000
Risk: R36
Safety: S22, S26



Guaranteed analysis

Loss on drying 300°C <1%	Total chloride (Cl) <0.002 %
Calcium (Ca) <100 ppm	Total nitrogen (N) <20 ppm
Copper (Cu) <5 ppm	Total phosphorus (P) <10 ppm
Iron (Fe) <5 ppm	Total silicon (Si) <20 ppm
Lead (Pb) <5 ppm	Total sulphur (S) <10 ppm
Magnesium (Mg) <10 ppm	Zinc (Zn) <5 ppm

Gadolinium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLGD22Y
500 mL Plastic bottle	SPPLGD22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Gadolinium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLGD23Y
500 mL Plastic bottle	SPPLGD23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



D(+)-Galactose anhydrous extra pure

SLR



packaging	product code
100 g Plastic jar	G/0050/48

C₆H₁₂O₆ HS-Nr: 29400000
CAS: 59-23-4 EINECS: 200-416-4
MW: 180.16 Safety: S24/25, S28A, S37, S45
Melting point: 165 to 168°C

Guaranteed analysis

Loss on drying <0.5% Melting Point tested 162 to 166°C

Gallium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLGA22Y
500 mL Plastic bottle	SPPLGA22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Gelatine extra pure, granular powder

SLR, Eur. Ph.



packaging	product code
500 g Plastic jar	G/0150/53

CAS: 9000-70-8
HS-Nr: 35030010
EINECS: 232-554-6
Safety: S24/25

Gentian Violet

See Methyl violet, page 168



Germanium standard metal solution 1000 ppm for ICP solution in H₂O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLGE92Y
500 mL Plastic bottle	SPPLGE92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Germanium standard metal solution 10 ppm for ICP-MS solution in H₂O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLGE91AY

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Gibberellic acid pure

packaging	product code
1 g Glass tube	G/0200/43

C₁₉H₂₂O₆ Melting point: 227 °C
CAS: 77-06-5 HS-Nr: 38220000
MW: 346.38 EINECS: 201-001-0
Boiling pressure: 760 mmHg Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Giemsa stain pure

packaging	product code
25 g Glass packaging	G/0275/46

CAS: 51811-82-6 HS-Nr: 32041900
Boiling pressure: 760 mmHg EINECS: 257-438-2
Melting point: 300°C Safety: S24/25, S37, S45

Guaranteed analysis

IR Analysis Conform

Glass balls pure, 3.7-4.1 mm undrilled

packaging	product code
250 g Plastic jar	G/0300/50
500 g Plastic jar	G/0300/53

HS-Nr: 38220000

D(+)-Glucose anhydrous for analysis

Certified AR, Eur.Ph.,BP,USP



packaging	product code
500 g Plastic jar	G/0500/53
1 kg Plastic jar	G/0500/60
2 kg Plastic jar	G/0500/61
5 kg Plastic drum	G/0500/65
25 kg Fibre Keg	G/0500/70

C₆H₁₂O₆ HS-Nr: 38220000
CAS: 50-99-7 EINECS: 200-075-1
MW: 180.16 Safety: S24/25
Melting point: 146°C

Guaranteed analysis

Insoluble matter (in alcohol)	<0.005%	Magnesium (Mg)	<5 ppm
Loss on drying	<0.1%	Potassium (K)	<20 ppm
pH (aqueous solution 5%)	pH > 6	Sodium (Na)	<50 ppm
Specific rotation (α 20/D)	+52.5° to +53.5°	Total chloride (Cl)	<0.005 %
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<5 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<0.5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Lithium (Li)	<0.2 ppm
Arsenic (As)	<1 ppm	Manganese (Mn)	<0.2 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<0.5 ppm
Cadmium (Cd)	<1 ppm	Titanium (Ti)	<0.5 ppm
Chromium (Cr)	<0.5 ppm	Vanadium (V)	<0.5 ppm
Cobalt (Co)	<0.5 ppm		

Lot analysis on the label.

D(+)-Glucose anhydrous extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	G/0450/53
	1 kg Plastic jar	G/0450/60
	2 kg Plastic jar	G/0450/61
	5 kg Plastic drum	G/0450/65

C₆H₁₂O₆
CAS: 50-99-7
MW: 180.16
Melting point: 146°C
HS-Nr: 38220000
EINECS: 200-075-1
Safety: S24/25

Guaranteed analysis

Loss on drying	<1%	Potassium (K)	<100 ppm
Specific rotation (α 20/D) ... +52° to +54°		Sodium (Na)	<200 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<5 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

D(+)-Glucose monohydrate extra pure

SLR, Eur.Ph.,BP

SpeciFied	packaging	product code
	1 kg Plastic jar	G/0400/60

C₆H₁₂O₆·H₂O
CAS: 5996-10-1
MW: 198.17
HS-Nr: 38220000
EINECS: 200-075-1

Guaranteed analysis

Loss on drying	6 to 10%	Specific rotation (α 20/D) ... +52° to +53°	
Residue after ignition	<0.1%	Lead (Pb)	<1 ppm

L(+)-Glutamic acid-5-amide

See L-Glutamine, page 109



L-Glutamic acid monosodium salt monohydrate pure

packaging	product code
250 g Plastic Jar	G/0513/50

C₅H₉NO₄Na·H₂O
CAS: 142-47-2
MW: 187.14
HS-Nr: 29224200
EINECS: 205-538-1
Risk: R20/21/22
Assay: >98%

L-Glutamine extra pure

SLR

SpeciFied	packaging	product code
	250 g Plastic jar	G/0514/50

C₅H₁₀N₂O₃
CAS: 56-85-9
MW: 146.15
Melting point: 185 °C
HS-Nr: 29241900
EINECS: 200-292-1
Risk: R36/37/38
Safety: S26, S37/39
Assay: >99%



Glutaraldehyde 50% solution extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	G/0518/PB08

C₅H₈O₂
CAS: 111-30-8
MW: 100.12
Density at 20°C: 1.126 to 1.134
Boiling point: >100°C
Melting point: -15°C
ADR/RID: 6.1(8)/II
UN: 2927
HS-Nr: 38220000
EINECS: 203-856-5
Risk: R23/25, R34, R42/43, R50
Safety: S26, S36/37/39, S45, S61



Assay: 47 to 53%

Glycerine

See Glycerol, page 109



Glycerol for analysis

Certified AR

CertiFied	packaging	product code
	500 mL Plastic bottle	G/0650/08
	2.5 L Plastic bottle	G/0650/17
	25 L Metal drum	G/0650/25
	200 L Metal drum	G/0650/27

HOCH₂CH(OH)CH₂OH
CAS: 56-81-5
MW: 92.09
Density at 20°C: 1.26
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 18°C
Flash point: 160°C
HS-Nr: 29309085
EINECS: 200-289-5
Safety: S24/25

Assay: >99%

Guaranteed analysis

Colour	<10 APHA	Magnesium (Mg)	<2 ppm
pH (aqueous solution 10%)	6.5 to 7.5	Potassium (K)	<5 ppm
Reducing substance	Conform	Sodium (Na)	<20 ppm
Residue after ignition	<0.005%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Chloride (Cl)	<0.0005 %	Total sulphur (S)	<5 ppm
Copper (Cu)	<0.5 ppm	Zinc (Zn)	<2 ppm
Iron (Fe)	<1 ppm	Esters of fatty acids	<0.08 %
Lead (Pb)	<0.5 ppm	Fatty acids	Conform

Typical analysis

Aluminium (Al)	<0.5 ppm	Lithium (Li)	<0.5 ppm
Arsenic (As)	<0.5 ppm	Manganese (Mn)	<0.5 ppm
Barium (Ba)	<0.5 ppm	Nickel (Ni)	<0.5 ppm
Cadmium (Cd)	<0.5 ppm	Titanium (Ti)	<0.5 ppm
Chromium (Cr)	<0.5 ppm	Vanadium (V)	<0.5 ppm
Cobalt (Co)	<0.5 ppm		

see page 279 for suitable Tap & accessories.

Glycerol extra pure

SLR

SpeciFied	packaging	product code
	500 mL Plastic bottle	G/0600/08
	2.5 L Plastic bottle	G/0600/17
	25 L Metal drum	G/0600/25

HOCH₂CH(OH)CH₂OH
CAS: 56-81-5
MW: 92.09
Density at 20°C: 1.26
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 18°C
Flash point: 160°C
HS-Nr: 15209000
EINECS: 200-289-5
Safety: S24/25

Assay: >98%

Guaranteed analysis

pH (aqueous solution 10%)	6.5 to 7.5	Magnesium (Mg)	<10 ppm
Residue after ignition	<0.01%	Potassium (K)	<20 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<100 ppm
Chloride (Cl)	<0.001%	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<10 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<10 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm

see page 279 for suitable Tap & accessories.

Glycine for analysis

Certified AR



packaging	product code
100 g Plastic jar	G/0800/48
250 g Plastic jar	G/0800/50
1 kg Plastic jar	G/0800/60

NH₂CH₂COOH
CAS: 56-40-6
MW: 75.07
Density at 20°C: 1.6
Boiling point: >233°C
Melting point: 182°C
HS-Nr: 29224910
EINECS: 200-272-2
Safety: S22, S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5.5 to 6.5	Potassium (K)	<20 ppm
Ammonium (NH ₄)	<0.02 %	Sodium (Na)	<50 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<2 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Lithium (Li)	<1 ppm
Barium (Ba)	<2 ppm	Manganese (Mn)	<1 ppm
Cadmium (Cd)	<1 ppm	Nickel (Ni)	<1 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Glycolic acid extra pure

SLR



packaging	product code
100 g Plastic jar	G/0803/48

C₂H₄O₃
CAS: 79-14-1
MW: 76.05
Boiling point: 100°C
Boiling pressure: 760 mmHg
Melting point: 72 to 80°C
Flash point: >300°C
ADR/RID: 8/III
UN: 3261
HS-Nr: 29181990
EINECS: 201-180-5
Risk: R22, R34
Safety: S26, S36/37/39, S45

Assay: >99%

Guaranteed analysis

Water	<1%
-------	-----

Gold standard metal solution 1000 ppm for AAS, solution HCl 1M

packaging	product code
500 mL Plastic bottle	J/8028/08

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.5%.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Gold standard metal solution 1000 ppm for ICP solution in HCL 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLAU32Y
500 mL Plastic bottle	SPPLAU32X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Gold standard metal solution 1000 ppm for ICP-MS solution in HCl 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLAU11Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Gram's iodine pure

packaging	product code
250 mL Glass bottle	G/0910/07

HS-Nr: 38220000

Graphite powder pure

packaging	product code
1 kg Plastic jar	G/0900/60

CAS: 7782-42-5
HS-Nr: 38220000
EINECS: 231-955-3

Guaiacol extra pure

SLR



packaging	product code
100 g Glass bottle	G/0950/48

C₇H₈O₂
CAS: 90-05-1
MW: 124.14
Density at 20°C: 1.12
Boiling point: 205°C
Boiling pressure: 760 mmHg
Melting point: 27 to 29°C
Flash point: 82°C
HS-Nr: 29095010
EINECS: 201-964-7
Risk: R22, R36/38
Safety: S26

Guaranteed analysis

IR Analysis	Conform	Pyrocatechol	<0.05%
Other impurities	<0.4%		

Conforming to the IR spectrum of reference.

Gum acacia pure, powder

packaging	product code
500 g Plastic jar	G/1050/53

HS-Nr: 13012000

Gum tragacanth pure, powder

packaging	product code
100 g Plastic jar	G/1100/48

HS-Nr: 38220000

Hafnium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLHF12Y
500 mL Plastic bottle	SPPLHF12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Hafnium standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLHF13Y
500 mL Plastic bottle	SPPLHF13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Haematoxylin pure

packaging	product code
25 g Glass packaging	H/0010/46

$C_{16}H_{14}O_6 \cdot xH_2O$
CAS: 517-28-2
MW: 302.27
Melting point: 100-120°C

Guaranteed analysis

IR Analysis Conform

N-Heptafluorobutyl-imidazole pure

packaging	product code
5 g Glass bottle	H/0095/45

$C_7H_2F_7N_2O$
CAS: 32477-35-3
MW: 264.1

Assay (GC): >98%



Heptane (approx. 99% n-Heptane) for HPLC

Certified



packaging	product code
1 L Glass bottle	H/0106/15
2.5 L Glass bottle	H/0106/17
2.5 L Coated Glass Bottle	H/0106/PB17

C_7H_{16}
CAS: 142-82-5
MW: 100.21
Density at 20°C: 0.68
Boiling point: 98°C
Boiling pressure: 760 mmHg
Melting point: -91°C
Flash point: -4°C

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.00015 meq/g Water <0.01%
Residue after evaporation <5 ppm



Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

200 nm	<0.25 A.U.	230 nm	<0.02 A.U.
210 nm	<0.1 A.U.	240 nm	<0.01 A.U.
220 nm	<0.05 A.U.	250 nm	<0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 μ m.

Heptane (approx. 99% n-Heptane) HPLC for fluorescence detection

Certified



packaging	product code
1 L Glass bottle	H/0107/15
2.5 L Glass bottle	H/0107/17

C_7H_{16}
CAS: 142-82-5
MW: 100.21
Density at 20°C: 0.68
Boiling point: 98°C
Boiling pressure: 760 mmHg
Melting point: -91°C
Flash point: -4°C

ADR/RID: 3/II

UN: 1206

HS-Nr: 29011000

EINECS: 205-563-8

Risk: R11, R38, R50/53, R65, R67

Safety: S9, S16, S29, S33,

S60, S61, S62



Assay (GC): >99%

Guaranteed analysis

Residue after evaporation <5 ppm Water <0.01%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

200 nm	<0.25 A.U.	240 nm	<0.01 A.U.
210 nm	<0.1 A.U.	250 nm	<0.005 A.U.
220 nm	<0.05 A.U.	Fluorescence	Conform
230 nm	<0.02 A.U.		

Fluorescence

Excitation in the range 250-270nm produces no fluorescence emission greater than the solvents natural Raman signal at 350nm excitation.

This is equivalent to the emission maximum of approximately 1 ppb quinine sulfate.

Lot analysis on the label (Excluding fluorescence scan).

Filtered to 0.2 μ m.

n-Heptane for analysis

Certified AR



packaging	product code
500 mL Glass bottle	H/0160/08
1 L Glass bottle	H/0160/15
2.5 L Glass bottle	H/0160/17
5 L Metal can	H/0160/21
200 L Metal drum	H/0160/27

C_7H_{16}
CAS: 142-82-5
MW: 100.21
Density at 20°C: 0.68
Boiling point: 98°C
Boiling pressure: 760 mmHg
Melting point: -91°C
Flash point: -4°C

ADR/RID: 3/II

UN: 1206

HS-Nr: 29011000

EINECS: 205-563-8

Risk: R11, R38, R50/53, R65, R67

Safety: S9, S16, S29, S33,

S60, S61, S62



Assay (GC): >99.5%

Guaranteed analysis

Acidity	<0.0001 meq/g	Iron (Fe)	<0.1 ppm
Colour	<10 APHA	Lead (Pb)	<0.02 ppm
Number of bromine	<0.5	Magnesium (Mg)	<0.05 ppm
Residue after evaporation	<10 ppm	Potassium (K)	<0.1 ppm
Substances darkened by (H ₂ SO ₄)	<10 APHA	Sodium (Na)	<0.5 ppm
Water	<0.02%	Total phosphorus (P)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.02 ppm	Total sulphur (S)	<10 ppm
		Zinc (Zn)	<0.2 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

n-Heptane extra pure

SLR



packaging	product code
500 mL Glass bottle	H/0155/08
2.5 L Glass bottle	H/0155/17
5 L Metal can	H/0155/21
25 L Metal drum	H/0155/25
200 L Metal drum	H/0155/27

C₇H₁₆
CAS: 142-82-5
MW: 100.21
Density at 20°C: 0.68
Boiling point: 98°C
Boiling pressure: 760 mmHg
Melting point: -91°C
Flash point: -4°C

ADR/RID: 3/II
UN: 1206
HS-Nr: 29011000
EINECS: 205-563-8
Risk: R11, R38, R50/S3, R65, R67
Safety: S9, S16, S29, S33, S60, S61, S62



Assay (GC): >99%

Guaranteed analysis

Acidity	<0.003 meq/g	Lead (Pb)	<1 ppm
Colour	<10 APHA	Magnesium (Mg)	<1 ppm
Residue after evaporation	<20 ppm	Potassium (K)	<1 ppm
Substances darkened by (H ₂ SO ₄)	<20 APHA	Sodium (Na)	<2 ppm
Water	<0.05%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<2 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Heptane fraction extra pure

SLR



packaging	product code
500 mL Glass bottle	H/0100/08
1 L Glass bottle	H/0100/15
2.5 L Glass bottle	H/0100/17

C₇H₁₆
CAS: 142-82-5
MW: 100.21
Density at 20°C: 0.69 to 0.71
Boiling point: 98°C
Boiling pressure: 760 mmHg
Melting point: -91°C
Flash point: -4°C

ADR/RID: 3/II
UN: 1206
HS-Nr: 29011000
EINECS: 205-563-8
Risk: R11, R38, R50/S3, R65, R67
Safety: S9, S16, S29, S33, S60, S61, S62



1-Heptane sulfonic acid sodium salt solution 0.1M for ion pair chromatography

Certified



packaging	product code
250 mL Glass bottle	H/0166/07

HS-Nr: 29041000
EINECS: 245-210-5
Risk: R36/38
Safety: S26, S28



Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.005 M) ... <0.02 A.U.

Lot analysis on the label.

1-Heptane sulfonic acid sodium salt for ion pair chromatography for electrochemical detection

Certified



packaging	product code
25 g Plastic jar	H/0169/46

C₇H₁₅NaO₃S
CAS: 22767-50-6
MW: 202.27
Melting point: >300°C

HS-Nr: 29041000
EINECS: 245-210-5
Risk: R36/37/38
Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Electrochemical test Conform

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm (sol. aqu. 0.25 M) ...	<0.1 A.U.	230 nm (sol. aqu. 0.25 M) ...	<0.03 A.U.
210 nm (sol. aqu. 0.25 M) ...	<0.05 A.U.	240 nm (sol. aqu. 0.25 M) ...	<0.02 A.U.
220 nm (sol. aqu. 0.25 M) ...	<0.04 A.U.	260 nm (sol. aqu. 0.25 M) ...	<0.02 A.U.

Tested by HPLC-EC to show low electrochemical response.

Detector - ESA Coulochem II.

Mode-oxidative.

Electrode graphite.

Lot analysis on the label.

1-Heptane sulfonic acid sodium salt for ion pair chromatography

Certified



packaging	product code
25 g Plastic jar	H/0168/46
100 g Plastic jar	H/0168/48

C₇H₁₅NaO₃S
CAS: 22767-50-6
MW: 202.27
Melting point: >300°C

HS-Nr: 29041000
EINECS: 245-210-5
Risk: R36/37/38
Safety: S26, S37/39



Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm (sol. aqu. 0.25 M) ...	<0.1 A.U.	230 nm (sol. aqu. 0.25 M) ...	<0.03 A.U.
210 nm (sol. aqu. 0.25 M) ...	<0.05 A.U.	240 nm (sol. aqu. 0.25 M) ...	<0.02 A.U.
220 nm (sol. aqu. 0.25 M) ...	<0.04 A.U.	260 nm (sol. aqu. 0.25 M) ...	<0.02 A.U.

Lot analysis on the label.

Heptan-1-ol pure

packaging	product code
100 mL Glass bottle	H/0250/05

C₇H₁₆O
CAS: 111-70-6
MW: 116.21
Density at 20°C: 0.823 to 0.825
Boiling point: 176°C
Boiling pressure: 760 mmHg
Melting point: -35°C

Flash point: 73°C
ADR/RID: 6.1/III
UN: 2810
HS-Nr: 29051990
EINECS: 203-897-9
Risk: R20/21/22, R36
Safety: S26, S36/37/39



Assay (GC): >98%

Hexachloroplatinic(IV) acid hydrate extra pure

SLR



packaging	product code
1 g Glass tube	H/0262/43
5 g Glass tube	H/0262/44

H₂Cl₆Pt.6H₂O
CAS: 16941-12-1
MW: 517.92
Melting point: 60°C
ADR/RID: 8/III

UN: 2507
HS-Nr: 38220000
EINECS: 241-010-7
Risk: R25, R34, R42/43
Safety: S22, S26, S36/37/39, S45



Assay: 39 to 41%

The price charged for this item is subject to alteration and will be that ruling at time of despatch.

Hexadecane extra pure

SLR



packaging	product code
100 mL Glass bottle	H/0270/05

C₁₆H₃₄
CAS: 544-76-3
MW: 226.45
Density at 20°C: 0.77
Boiling point: 287°C
Boiling pressure: 760 mmHg

Melting point: 18°C
Flash point: 135°C
HS-Nr: 29011000
EINECS: 208-878-9
Risk: R65, R66
Safety: S62



Assay (GC): >98%

1,1,1,3,3,3-Hexafluoro propan-2-ol for gas chromatography

packaging	product code
25 mL Glass bottle	H/0285/04
$C_3H_2F_6O$ CAS: 920-66-1 MW: 168.04 Density at 20°C: 1.6 Boiling point: 59°C Boiling pressure: 760 mmHg Melting point: -4°C Flash point: >100°C ADR/RID: 8(6.1)/II UN: 2922 HS-Nr: 29055010 EINECS: 213-059-4 Risk: R20/22, R34 Safety: S26, S36/37/39, S45	
Assay (GC): >99%	



Hexafluorosilicic acid See Fluorosilicic acid, page 104



Hexamethylenediamine

See 1,6-Diaminohexane, page 80



Hexamine for analysis

Certified AR

packaging	product code
500 g Plastic jar	H/0320/53
1 kg Plastic jar	H/0320/60
5 kg Plastic drum	H/0320/65
$C_6H_{12}N_4$ CAS: 100-97-0 MW: 140.19 Density at 20°C: 1.33 Melting point: 280°C Flash point: 250°C ADR/RID: 4.1/III UN: 1328 HS-Nr: 29339010 EINECS: 202-905-8 Risk: R11, R42/43 Safety: S16, S22, S24, S37	
Assay: >99.5%	



Guaranteed analysis

pH (aqueous solution 10%)	8.5 to 9.5	Potassium (K)	<10 ppm
Ammonium (NH ₄)	<0.005 %	Sodium (Na)	<20 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.002 %
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Lithium (Li)	<1 ppm
Arsenic (As)	<1 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Titanium (Ti)	<1 ppm
Chromium (Cr)	<1 ppm	Vanadium (V)	<1 ppm
Cobalt (Co)	<1 ppm		

Lot analysis on the label.

Hexamine extra pure

SLR

packaging	product code
500 g Plastic jar	H/0300/53
1 kg Plastic jar	H/0300/60
5 kg Plastic drum	H/0300/65
25 kg Fibre Keg	H/0300/70

$C_6H_{12}N_4$ CAS: 100-97-0 MW: 140.19 Density at 20°C: 1.33 Melting point: 280°C Flash point: 250°C ADR/RID: 4.1/III UN: 1328 HS-Nr: 29339010 EINECS: 202-905-8 Risk: R11, R42/43 Safety: S16, S22, S24, S37	
Assay: >99%	

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.01 %
Iron (Fe)	<10 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm

n-Hexane for analysis

Certified AR



packaging	product code
500 mL Coated Glass Bottle	H/0421/PB08
2.5 L Coated Glass Bottle	H/0421/PB17
25 L Metal drum	H/0421/25
200 L Metal drum	H/0421/27

C_6H_{14} CAS: 110-54-3 MW: 86.18 Density at 20°C: 0.66 Boiling point: 69°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: -22°C	ADR/RID: 3/II UN: 1208 HS-Nr: 29011000 Risk: R11, R38, R48/20, R51/53, R62, R65, R67 Safety: S9, S16, S29, S33, S36/37, S61, S62
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Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0008 meq/g	Lead (Pb)	<0.02 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.05 ppm
Number of bromine	<0.5	Potassium (K)	<0.1 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<0.1 ppm
Substances darkened by (H ₂ SO ₄)	Conform	Total phosphorus (P)	<0.1 ppm
Water	<0.02%	Total silicon (Si)	<0.05 ppm
Calcium (Ca)	<0.2 ppm	Total sulphur (S)	<10 ppm
Copper (Cu)	<0.02 ppm	Zinc (Zn)	<0.1 ppm
Iron (Fe)	<0.1 ppm	Aromatic Hydrocarbons	<0.01 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

n-Hexane extra pure

SLR



packaging	product code
2.5 L Coated Glass Bottle	H/0420/PB17
5 L Metal can	H/0420/21
25 L Metal drum	H/0420/25

C_6H_{14} CAS: 110-54-3 MW: 86.18 Density at 20°C: 0.66 Boiling point: 69°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: -22°C	ADR/RID: 3/II UN: 1208 HS-Nr: 29011000 EINECS: 203-777-6 Risk: R11, R38, R48/20, R51/53, R62, R65, R67 Safety: S9, S16, S29, S33, S36/37, S61, S62
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Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Lead (Pb)	<1 ppm
Colour	<20 APHA	Magnesium (Mg)	<1 ppm
Number of bromine	<0.5	Potassium (K)	<1 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<2 ppm
Water	<0.05%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<2 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Hexanedioic acid See Adipic acid, page 11



Fisher Chemical packaging

A convenient and complete range
for a cleaner and safer world!


Hexanes (95% n-Hexane approx.)
for HPLC

Certified



packaging	product code
1 L Glass bottle	H/0406/15
2.5 L Glass bottle	H/0406/17
2.5 L Coated Glass Bottle	H/0406/PB17
5 L Aluminium drum	H/0406/21
25 L Stainless steel drum	H/0406/25SS
25 L Metal drum	H/0406/DH25
200 L Stainless steel drum	H/0406/27SS

C₆H₁₄
CAS: 92112-69-1
MW: 86.18
Density at 20°C: 0.66
Boiling point: 69°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: -22°C

ADR/RID: 3/II
UN: 1208
HS-Nr: 29011000
EINECS: 203-777-6
Risk: R11, R38, R48/20, R51/53,
R62, R65, R67
Safety: S9, S16, S29, S33,
S36/37, S61, S62



Assay (GC): >95%

Guaranteed analysis

Acidity / Alkalinity <0.00015 meq/g Water <0.01%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.2 A.U.	240 nm <0.005 A.U.
210 nm <0.05 A.U.	250 nm <0.005 A.U.
220 nm <0.02 A.U.	260 nm <0.005 A.U.
230 nm <0.01 A.U.	

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Hexanes (95% n-Hexane approx.)
HPLC for fluorescence detection

Certified



packaging	product code
1 L Coated Glass Bottle	H/0409/PB15
2.5 L Coated Glass Bottle	H/0409/PB17

C₆H₁₄
CAS: 92112-69-1
MW: 86.18
Density at 20°C: 0.66
Boiling point: 69°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: -22°C

ADR/RID: 3/II
UN: 1208
HS-Nr: 29011000
EINECS: 203-777-6
Risk: R11, R38, R48/20, R51/53,
R62, R65, R67
Safety: S9, S16, S29, S33,
S36/37, S61, S62



Assay (GC): >95%

Guaranteed analysis

Acidity / Alkalinity <0.00015 meq/g Water <0.01%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.3 A.U.	240 nm <0.005 A.U.
210 nm <0.1 A.U.	250 nm <0.005 A.U.
220 nm <0.025 A.U.	Fluorescence Conform
230 nm <0.01 A.U.	

Excitation in the range 250-750nm produces no fluorescence emission greater than the solvents natural Raman signal at 350nm excitation. This is equivalent to the emission maximum of approximately 1ppb quinine sulfate.

Lot analysis on the label (excluding fluorescence scan).

Filtered to 0.2 µm.

Standard Volumetric
solutionNIST Certified & Conform
to Pharmacopeia

Read more on page 266

Hexanes (95% n-Hexane approx.)
for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	H/0403/15
2.5 L Glass bottle	H/0403/17

C₆H₁₄
CAS: 92112-69-1
MW: 86.18
Density at 20°C: 0.66
Boiling point: 69°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: -22°C

ADR/RID: 3/II
UN: 1208
HS-Nr: 29011000
EINECS: 203-777-6
Risk: R11, R38, R48/20, R51/53,
R62, R65, R67
Safety: S9, S16, S29, S33,
S36/37, S61, S62



Assay (GC): >95%

Guaranteed analysis

GC (ECD) Analysis Conform Residue after evaporation <2 ppm
GC (FID) Analysis Conform Water <0.01%
GC (NPD) analysis Conform

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxyde (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile: (1) 50°C, 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Hexanes (95% n-Hexane approx.)
extra dry, for synthesis

packaging	product code
1 L Coated Glass Bottle	H/0402/PB15
2.5 L Coated Glass Bottle	H/0402/PB17

C₆H₁₄
CAS: 92112-69-1
MW: 86.18
Density at 20°C: 0.66
Boiling point: 69°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: -22°C

ADR/RID: 3/II
UN: 1208
HS-Nr: 29011000
EINECS: 203-777-6
Risk: R11, R38, R48/20, R51/53,
R62, R65, R67
Safety: S9, S16, S29, S33,
S36/37, S61, S62



Assay (GC): >95%

Guaranteed analysis

Residue after evaporation <2 ppm Water <0.005%

Hexanes (95% n-Hexane approx.)
for analysis

Certified AR



packaging	product code
1 L Glass bottle	H/0355/15
2.5 L Glass bottle	H/0355/17
5 L Metal can	H/0355/21

C₆H₁₄
CAS: 92112-69-1
MW: 86.18
Density at 20°C: 0.66
Boiling point: 69°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: -22°C

ADR/RID: 3/II
UN: 1208
HS-Nr: 29011000
EINECS: 203-777-6
Risk: R11, R38, R48/20, R51/53,
R62, R65, R67
Safety: S9, S16, S29, S33,
S36/37, S61, S62



Assay (GC): >95%

Guaranteed analysis

Acidity / Alkalinity <0.00008 meq/g	Lead (Pb) <0.02 ppm
Colour <10 APHA	Magnesium (Mg) <0.05 ppm
Number of bromine <0.5	Potassium (K) <0.1 ppm
Residue after evaporation <20 ppm	Sodium (Na) <0.1 ppm
Substances darkened by (H ₂ SO ₄) Conform	Total phosphorus (P) <0.1 ppm
Water <0.02%	Total silicon (Si) <0.05 ppm
Calcium (Ca) <0.2 ppm	Total sulphur (S) <10 ppm
Copper (Cu) <0.02 ppm	Zinc (Zn) <0.1 ppm
Iron (Fe) <0.1 ppm	Aromatic Hydrocarbons <0.1 %

Typical analysis

Aluminium (Al)	<0.1 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Hexanes fraction

extra pure, low in aromatic hydrocarbons

SLR



packaging	product code
500 mL Glass bottle	H/0400/08
2.5 L Glass bottle	H/0400/17

C ₆ H ₁₄	ADR/RID: 3/II	
CAS: 92112-69-1	UN: 1208	
MW: 86.18	HS-Nr: 29011000	
Density at 20°C: 0.66	EINECS: 203-777-6	
Boiling point: 69°C	Risk: R11, R38, R48/20, R51/53,	
Boiling pressure: 760 mmHg	R62, R65, R67	
Melting point: -95°C	Safety: S9, S16, S29, S33,	
Flash point: -22°C	S36/37, S61, S62	

Guaranteed analysis

Residue after evaporation	<20 ppm	Aromatic Hydrocarbons	<0.1%
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Hexanes fraction

extra pure

SLR



packaging	product code
500 mL Glass bottle	H/0350/08
1 L Glass bottle	H/0350/15
2.5 L Glass bottle	H/0350/17
2.5 L Coated Glass Bottle	H/0350/PB17
5 L Metal can	H/0350/21
25 L Metal drum	H/0350/25
200 L Metal drum	H/0350/27
200 L Stainless steel drum	H/0350/27SS

C ₆ H ₁₄	ADR/RID: 3/II	
CAS: 92112-69-1	UN: 1208	
MW: 86.18	HS-Nr: 29011000	
Density at 20°C: 0.66	EINECS: 203-777-6	
Boiling point: 69°C	Risk: R11, R38, R48/20, R51/53,	
Boiling pressure: 760 mmHg	R62, R65, R67	
Melting point: -95°C	Safety: S9, S16, S29, S33,	
Flash point: -22°C	S36/37, S61, S62	

Guaranteed analysis

Residue after evaporation	<20 ppm
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see page 279 for suitable Tap & accessories.

1-Hexane sulfonic acid sodium salt

for Ion pair chromatography for electrochemical detection

Certified



packaging	product code
25 g Plastic jar	H/0439/46

C ₆ H ₁₃ NaO ₃ S.xH ₂ O	HS-Nr: 29041000
CAS: 2832-45-3	EINECS: 220-601-3
MW: 188.22	Risk: R36/38
Melting point: >300°C	Safety: S26, S28

Assay: >98%

Guaranteed analysis

Electrochemical test	Conform
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Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm (sol. aqu. 0.25 M)	<0.1 A.U.	230 nm (sol. aqu. 0.25 M)	<0.03 A.U.
210 nm (sol. aqu. 0.25 M)	<0.05 A.U.	240 nm (sol. aqu. 0.25 M)	<0.02 A.U.
220 nm (sol. aqu. 0.25 M)	<0.04 A.U.	260 nm (sol. aqu. 0.25 M)	<0.02 A.U.

Tested by HPLC-EC to show low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

1-Hexane sulfonic acid sodium salt

for Ion pair chromatography

Certified



packaging	product code
25 g Plastic jar	H/0438/46
100 g Plastic jar	H/0438/48

C ₆ H ₁₃ NaO ₃ S.xH ₂ O	HS-Nr: 29041000	
CAS: 2832-45-3	EINECS: 220-601-3	
MW: 188.22	Risk: R36/38	
Melting point: >300°C	Safety: S26, S28	

Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm (sol. aqu. 0.25 M)	<0.1 A.U.	230 nm (sol. aqu. 0.25 M)	<0.03 A.U.
210 nm (sol. aqu. 0.25 M)	<0.05 A.U.	240 nm (sol. aqu. 0.25 M)	<0.02 A.U.
220 nm (sol. aqu. 0.25 M)	<0.04 A.U.	260 nm (sol. aqu. 0.25 M)	<0.02 A.U.

Lot analysis on the label.

n-Hexanoic acid

extra pure

SLR



packaging	product code
250 mL Glass bottle	H/0440/07

C ₆ H ₁₂ O ₂	Flash point: 104°C
CAS: 142-62-1	ADR/RID: 8/III
MW: 116.16	UN: 2829
Density at 20°C: 0.92	HS-Nr: 38220000
Boiling point: 202 to 203°C	EINECS: 205-550-7
Boiling pressure: 760 mmHg	Risk: R21, R34
Melting point: -3°C	Safety: S25, S36/37/39, S45

Guaranteed analysis

IR Analysis	Conform
-------------	---------

Hexan-1-ol

extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	H/0450/PB08
2.5 L Coated Glass Bottle	H/0450/PB17
200 L Metal drum	H/0450/27

C ₆ H ₁₄ O	Flash point: 60°C
CAS: 111-27-3	ADR/RID: 3/III
MW: 102.18	UN: 2282
Density at 20°C: 0.81	HS-Nr: 38220000
Boiling point: 156.4°C	EINECS: 203-852-3
Boiling pressure: 760 mmHg	Risk: R22
Melting point: -52°C	Safety: S24/25

Assay (GC): >99%

see page 279 for suitable Tap & accessories.

Hex-1-ene

extra pure

SLR



packaging	product code
100 mL Glass bottle	H/0460/05

C ₆ H ₁₂	ADR/RID: 3/II	
CAS: 592-41-6	UN: 2370	
MW: 84.16	HS-Nr: 29012900	
Density at 20°C: 0.68	EINECS: 209-753-1	
Boiling point: 62 to 65°C	Risk: R11, R51/53, R65, R67	
Boiling pressure: 760 mmHg	Safety: S9, S16, S29, S33,	
Melting point: -140°C	S57, S62	
Flash point: -26°C		

Guaranteed analysis

IR Analysis	Conform
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L-Histidine pure

packaging	product code
100 g Plastic jar	H/0467/48
C ₆ H ₉ N ₃ O ₂ CAS: 71-00-1 MW: 155.16 Boiling pressure: 760 mmHg	Melting point: 282 °C HS-Nr: 29332990 EINECS: 200-745-3 Safety: S24/25

Assay: >98%

Histo-clear® For microscopy

packaging	product code
2.5 L Glass bottle	H/0468/17

ADR/RID: 3/III
UN: 2319
HS-Nr: 38220000

Holmium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLH022Y
500 mL Plastic bottle	SPPLH022X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Hyamine® 1622 For microscopy, solution 0.004M

packaging	product code
2.5 L Glass bottle	H/0480/17

HS-Nr: 29239000

Guaranteed analysis

Value between 0.97 to 1.03

Hydrazine hydrate for analysis

Certified AR

packaging	product code
500 mL Plastic bottle	H/0560/PB08

H₄N₂·H₂O
CAS: 7803-57-8
MW: 50.06
Density at 20°C: 1.03
Boiling point: 120.1°C
Melting point: -51.5°C
Flash point: 75°C

ADR/RID: 8(6.1)/II
UN: 2030
HS-Nr: 28251000
Risk: R45, R23/24/25, R34, R43, R50/53
Safety: S53, S45, S60, S61

Guaranteed analysis

Colour	<10 APHA	Sodium (Na)	<100 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.005 %
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<5 ppm		

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Selenium (Se)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Tin (Sn)	<1 ppm
Lithium (Li)	<1 ppm	Titanium (Ti)	<1 ppm
Manganese (Mn)	<1 ppm	Vanadium (V)	<1 ppm

Hydrazine hydrate extra pure

SLR

packaging	product code
250 mL Coated Glass Bottle	H/0550/PB07
2.5 L Plastic bottle	H/0550/PB17

H₄N₂·H₂O
CAS: 7803-57-8
MW: 50.06
Density at 20°C: 1.03
Boiling point: 120.1°C
Melting point: -51.5°C
Flash point: 75°C

ADR/RID: 8(6.1)/II
UN: 2030
HS-Nr: 28251000
Risk: R45, R23/24/25, R34, R43, R50/53
Safety: S53, S45, S60, S61

Assay: >99%

Guaranteed analysis

Colour	<20 APHA	Sodium (Na)	<500 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<5 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<20 ppm		

Hydrazine hydrate solution 60 % (N₂H₄·H₂O) extra pure

SLR

packaging	product code
500 mL Plastic bottle	H/0500/PB08

H₄N₂·H₂O
CAS: 7803-57-8
MW: 50.06
Density at 20°C: 1.03
ADR/RID: 8(6.1)/II

UN: 2030
HS-Nr: 28251000
Risk: R45, R23/24/25, R34, R43
Safety: S53, S45

Assay: 60 to 64%

Guaranteed analysis

Total chloride (Cl) <0.03%

Hydrazinium chloride extra pure

SLR

packaging	product code
250 g Plastic jar	H/0600/50

NH₂NH₂·2HCl
CAS: 5341-61-7
MW: 104.97
Boiling point: 200°C
Boiling pressure: 760 mmHg
Melting point: 198°C
ADR/RID: 6.1/III

UN: 3288
HS-Nr: 28251000
EINECS: 226-283-2
Risk: R45, R23/24/25, R43, R50/53
Safety: S53, S45, S60, S61

Assay: >98%

Hydrazinium sulfate for analysis

Certified AR

packaging	product code
100 g Plastic jar	H/0700/48
250 g Plastic jar	H/0700/50

H₄N₂·H₂SO₄
CAS: 10034-93-2
MW: 130.12
Melting point: 254°C
ADR/RID: 6.1/III
UN: 3288

HS-Nr: 28251000
EINECS: 233-110-4
Risk: R45, R23/24/25, R43, R50/53
Safety: S53, S45, S60, S61

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Potassium (K)	<10 ppm
Copper (Cu)	<5 ppm	Sodium (Na)	<20 ppm
Iron (Fe)	<10 ppm	Total chloride (Cl)	<0.002 %
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Lithium (Li)	<1 ppm
Barium (Ba)	<1 ppm	Manganese (Mn)	<1 ppm
Cadmium (Cd)	<1 ppm	Nickel (Ni)	<1 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Hydrazinium sulfate extra pure

SLR


packaging **product code**

500 g Plastic jar **H/0650/53**

$\text{H}_4\text{N}_2 \cdot \text{H}_2\text{SO}_4$
CAS: 10034-93-2
MW: 130.12
Melting point: 254°C
ADR/RID: 6.1/III
UN: 3288

HS-Nr: 28251000
EINECS: 233-110-4
Risk: R45, R23/24/25, R43,
R50/53
Safety: S53, S45, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<20 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<100 ppm
Iron (Fe)	<50 ppm	Total chloride (Cl)	<0.01%
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

Hydriodic acid 64-68% for analysis

Certified AR


packaging **product code**

250 mL Glass bottle **H/0850/07**

HI
CAS: 10034-85-2
MW: 127.91
Boiling point: 127°C
Boiling pressure: 760 mmHg
ADR/RID: 8/II

UN: 1787
HS-Nr: 28111900
EINECS: 233-109-9
Risk: R35
Safety: S9, S26, S36/37/39, S45



Assay: 64 to 68%

Guaranteed analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<0.5 ppm
Cadmium (Cd)	<1 ppm	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Silver (Ag)	<1 ppm
Chloride and Bromide	<0.02%	Sodium (Na)	<10 ppm
Chromium (Cr)	<0.5 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<1 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<5 ppm		

Lot analysis on the label.

Hydrobromic acid 44-49% for ultra trace analysis

NEW SPEC.

OPTIMA


packaging **product code**

500 mL Bottle Teflon FEP **H/0955/08**

HBr
CAS: 10035-10-6
MW: 80.92
Density at 20°C: 1.48
Boiling point: 126 to 128°C
Boiling pressure: 760 mmHg

Melting point: -11°C
ADR/RID: 8/II
UN: 1788
HS-Nr: 28111910
Risk: R34, R37
Safety: S7/9, S26, S45



Assay (HBr): 44 to 49%

Guaranteed analysis

Aluminium (Al)	<100 ppt	Gold (Au)	<100 ppt
Barium (Ba)	<100 ppt	Hafnium (Hf)	<10 ppt
Beryllium (Be)	<100 ppt	Holmium (Ho)	<10 ppt
Bismuth (Bi)	<100 ppt	Indium (In)	<10 ppt
Cadmium (Cd)	<100 ppt	Iron (Fe)	<100 ppt
Calcium (Ca)	<100 ppt	Lanthanum (La)	<10 ppt
Cerium (Ce)	<10 ppt	Lead (Pb)	<1 ppt
Cesium (Cs)	<10 ppt	Lithium (Li)	<100 ppt
Chromium (Cr)	<100 ppt	Lutetium (Lu)	<10 ppt
Cobalt (Co)	<100 ppt	Magnesium (Mg)	<100 ppt
Copper (Cu)	<100 ppt	Manganese (Mn)	<100 ppt
Dysprosium (Dy)	<10 ppt	Molybdenum (Mo)	<100 ppt
Erbium (Er)	<10 ppt	Neodymium (Nd)	<10 ppt
Europium (Eu)	<10 ppt	Nickel (Ni)	<100 ppt
Gadolinium (Gd)	<10 ppt	Niobium (Nb)	<10 ppt
Gallium (Ga)	<100 ppt		

Palladium (Pd)	<100 ppt	Tellurium (Te)	<10 ppt
Platinum (Pt)	<100 ppt	Terbium (Tb)	<10 ppt
Potassium (K)	<100 ppt	Thallium (Tl)	<10 ppt
Praseodymium (Pr)	<10 ppt	Thorium (Th)	<1 ppt
Rhenium (Re)	<100 ppt	Thulium (Tm)	<10 ppt
Rhodium (Rh)	<100 ppt	Tin (Sn)	<100 ppt
Rubidium (Rb)	<100 ppt	Titanium (Ti)	<100 ppt
Ruthenium (Ru)	<100 ppt	Tungsten (W)	<100 ppt
Samarium (Sm)	<10 ppt	Uranium (U)	<1 ppt
Scandium (Sc)	<100 ppt	Vanadium (V)	<100 ppt
Silver (Ag)	<100 ppt	Ytterbium (Yb)	<10 ppt
Sodium (Na)	<100 ppt	Yttrium (Y)	<10 ppt
Strontium (Sr)	<100 ppt	Zinc (Zn)	<100 ppt

Hydrobromic acid 48% for analysis

Certified AR


packaging **product code**

500 mL Plastic bottle **H/0950/PB08**
2.5 L Plastic bottle **H/0950/PB17**

HBr
CAS: 10035-10-6
MW: 80.92
Density at 20°C: 1.48
Boiling point: 126 to 128°C
Boiling pressure: 760 mmHg
Melting point: -11°C

ADR/RID: 8/II
UN: 1788
HS-Nr: 28111900
EINECS: 233-113-0
Risk: R34, R37
Safety: S7/9, S26, S45



Assay: 47 to 49%

Guaranteed analysis

Aluminium (Al)	<0.2 ppm	Molybdenum (Mo)	<0.02 ppm
Arsenic (As)	<1 ppm	Nickel (Ni)	<0.5 ppm
Barium (Ba)	<0.5 ppm	Potassium (K)	<0.5 ppm
Cadmium (Cd)	<0.05 ppm	Silver (Ag)	<0.02 ppm
Calcium (Ca)	<2 ppm	Sodium (Na)	<10 ppm
Chromium (Cr)	<0.5 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Copper (Cu)	<0.1 ppm	Total chloride (Cl)	<0.05%
Iodide	<0.0002%	Total phosphorus (P)	<2 ppm
Iron (Fe)	<0.5 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<0.1 ppm	Total sulphur (S)	<20 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Magnesium (Mg)	<0.5 ppm	Zinc (Zn)	<0.5 ppm

Hydrobromic acid 48% extra pure

SLR


packaging **product code**

500 mL Plastic bottle **H/0900/PB08**
2.5 L Plastic bottle **H/0900/PB17**
200 L Metal drum **H/0900/27**

HBr
CAS: 10035-10-6
MW: 80.9
Density at 20°C: 1.48
Boiling point: 126 to 128°C
Boiling pressure: 760 mmHg
Melting point: -11°C

ADR/RID: 8/II
UN: 1788
HS-Nr: 38220000
EINECS: 233-113-0
Risk: R34, R37
Safety: S7/9, S26, S45



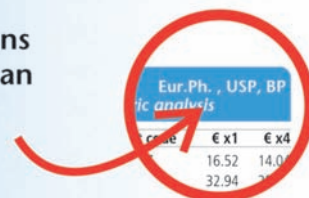
Assay: 47 to 49%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Potassium (K)	<10 ppm
Chromium (Cr)	<2 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.2%
Iodide	<0.001%	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<5 ppm
Nickel (Ni)	<2 ppm		

see page 279 for suitable Tap & accessories.

The ready to use solutions
comply with the European
Pharmacopeia
Discover them
at page 266



Hydrochloric acid 20% d=1.1 for trace metal analysis

Primar



packaging	product code
500 mL Coated Glass Bottle	H/1190/PB08
2.5 L Coated Glass Bottle	H/1190/PB17

HCl
CAS: 7647-01-0
MW: 36.46
Density at 20°C: 1.05 to 1.15
ADR/RID: 8/II

UN: 1789
HS-Nr: 28273980
EINECS: 231-595-7
Risk: R34, R37
Safety: S26, S45



Guaranteed analysis

Aluminium (Al)	<0.05 ppm	Mercury (Hg)	<0.002 ppm
Arsenic (As)	<0.02 ppm	Molybdenum (Mo)	<0.005 ppm
Barium (Ba)	<0.05 ppm	Nickel (Ni)	<0.005 ppm
Cadmium (Cd)	<0.005 ppm	Potassium (K)	<0.2 ppm
Calcium (Ca)	<0.2 ppm	Silver (Ag)	<0.005 ppm
Chromium (Cr)	<0.005 ppm	Sodium (Na)	<1 ppm
Cobalt (Co)	<0.005 ppm	Strontium (Sr)	<0.005 ppm
Copper (Cu)	<0.01 ppm	Titanium (Ti)	<0.005 ppm
Iron (Fe)	<0.1 ppm	Total phosphorus (P)	<0.2 ppm
Lead (Pb)	<0.001 ppm	Total silicon (Si)	<0.5 ppm
Lithium (Li)	<0.002 ppm	Total sulphur (S)	<0.5 ppm
Magnesium (Mg)	<0.02 ppm	Vanadium (V)	<0.005 ppm
Manganese (Mn)	<0.005 ppm	Zinc (Zn)	<0.02 ppm

Hydrochloric acid 32-35% **NEW SPEC.** for ultra trace analysis

OPTIMA



packaging	product code
250 mL Bottle Teflon PFA	H/1205/07
500 mL Bottle Teflon PFA	H/1205/08
1 L Bottle Teflon PFA	H/1205/15

HCl
CAS: 7647-01-0
MW: 36.46
ADR/RID: 8/II
UN: 1789

HS-Nr: 28061000
EINECS: 231-595-7
Risk: R34, R37
Safety: S24/25



Assay (HCl): 32-35%

Guaranteed analysis

Aluminium (Al)	<20 ppt	Mercury (Hg)	<100 ppt
Antimony (Sb)	<20 ppt	Molybdenum (Mo)	<10 ppt
Arsenic (As)	<50 ppt	Neodymium (Nd)	<1 ppt
Barium (Ba)	<10 ppt	Nickel (Ni)	<50 ppt
Beryllium (Be)	<10 ppt	Niobium (Nb)	<1 ppt
Bismuth (Bi)	<10 ppt	Potassium (K)	<10 ppt
Boron (B)	<100 ppt	Praseodymium (Pr)	<1 ppt
Cadmium (Cd)	<10 ppt	Rhenium (Re)	<10 ppt
Calcium (Ca)	<20 ppt	Rhodium (Rh)	<10 ppt
Cerium (Ce)	<10 ppt	Rubidium (Rb)	<10 ppt
Cesium (Cs)	<10 ppt	Ruthenium (Ru)	<10 ppt
Chromium (Cr)	<20 ppt	Samarium (Sm)	<1 ppt
Cobalt (Co)	<10 ppt	Scandium (Sc)	<10 ppt
Copper (Cu)	<20 ppt	Silver (Ag)	<10 ppt
Dysprosium (Dy)	<1 ppt	Sodium (Na)	<10 ppt
Erbium (Er)	<1 ppt	Strontium (Sr)	<10 ppt
Europium (Eu)	<1 ppt	Tellurium (Te)	<1 ppt
Gadolinium (Gd)	<1 ppt	Terbium (Tb)	<1 ppt
Gallium (Ga)	<10 ppt	Thallium (Tl)	<10 ppt
Gold (Au)	<100 ppt	Thorium (Th)	<1 ppt
Hafnium (Hf)	<10 ppt	Thulium (Tm)	<1 ppt
Holmium (Ho)	<1 ppt	Tin (Sn)	<20 ppt
Indium (In)	<1 ppt	Titanium (Ti)	<20 ppt
Iron (Fe)	<20 ppt	Tungsten (W)	<10 ppt
Lanthanum (La)	<1 ppt	Uranium (U)	<1 ppt
Lead (Pb)	<10 ppt	Vanadium (V)	<10 ppt
Lithium (Li)	<10 ppt	Ytterbium (Yb)	<1 ppt
Lutetium (Lu)	<10 ppt	Yttrium (Y)	<1 ppt
Magnesium (Mg)	<10 ppt	Zinc (Zn)	<20 ppt
Manganese (Mn)	<10 ppt	Zirconium (Zr)	<10 ppt

Hydrochloric acid 34-37% **NEW** for trace metal analysis

Trace metal grade



packaging	product code
500 mL Coated Glass Bottle	H/1202/PB08
1 L Coated Glass Bottle	H/1202/PB15
2.5 L Coated Glass Bottle	H/1202/PB17

HCl
CAS: 7647-01-0
MW: 36.46
Boiling point: 57°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8/II
UN: 1789
HS-Nr: 28061000
EINECS: 231-595-7
Risk: R34, R37
Safety: S26, S45



Assay: 34 to 37%

Guaranteed analysis

Colour	<10 APHA	Neodymium (Nd)	<0.1 ppb
Aluminium (Al)	<0.5 ppb	Nickel (Ni)	<0.1 ppb
Antimony (Sb)	<0.1 ppb	Niobium (Nb)	<0.1 ppb
Arsenic (As)	<0.1 ppb	Palladium (Pd)	<0.5 ppb
Barium (Ba)	<0.1 ppb	Platinum (Pt)	<0.5 ppb
Beryllium (Be)	<0.1 ppb	Potassium (K)	<0.1 ppb
Bismuth (Bi)	<0.1 ppb	Praseodymium (Pr)	<0.1 ppb
Boron (B)	<0.5 ppb	Rhenium (Re)	<0.1 ppb
Bromide (Br)	<10 ppm	Rhodium (Rh)	<0.1 ppb
Cadmium (Cd)	<0.1 ppb	Rubidium (Rb)	<0.1 ppb
Calcium (Ca)	<0.5 ppb	Ruthenium (Ru)	<0.1 ppb
Cerium (Ce)	<0.1 ppb	Samarium (Sm)	<0.1 ppb
Cesium (Cs)	<0.1 ppb	Scandium (Sc)	<0.1 ppb
Chlorine (Cl ₂)	<0.5 ppm	Selenium (Se)	<0.1 ppb
Chromium (Cr)	<0.1 ppb	Silver (Ag)	<0.1 ppb
Cobalt (Co)	<0.1 ppb	Sodium (Na)	<0.5 ppb
Copper (Cu)	<0.1 ppb	Strontium (Sr)	<0.1 ppb
Dysprosium (Dy)	<0.1 ppb	Tantalum (Ta)	<1 ppb
Erbium (Er)	<0.1 ppb	Tellurium (Te)	<0.1 ppb
Europium (Eu)	<0.1 ppb	Terbium (Tb)	<0.1 ppb
Gadolinium (Gd)	<0.1 ppb	Thallium (Tl)	<0.1 ppb
Gallium (Ga)	<0.1 ppb	Thorium (Th)	<0.1 ppb
Gold (Au)	<0.1 ppb	Thulium (Tm)	<0.1 ppb
Hafnium (Hf)	<0.1 ppb	Tin (Sn)	<0.1 ppb
Holmium (Ho)	<0.1 ppb	Titanium (Ti)	<0.1 ppb
Indium (In)	<0.1 ppb	Total phosphorus (P)	<0.01 ppm
Iron (Fe)	<0.5 ppb	Total sulphur (S)	<0.3 ppm
Lanthanum (La)	<0.1 ppb	Tungsten (W)	<0.1 ppb
Lead (Pb)	<0.1 ppb	Uranium (U)	<0.1 ppb
Lithium (Li)	<0.1 ppb	Vanadium (V)	<0.1 ppb
Lutetium (Lu)	<0.1 ppb	Ytterbium (Yb)	<0.1 ppb
Magnesium (Mg)	<0.5 ppb	Yttrium (Y)	<0.1 ppb
Manganese (Mn)	<0.1 ppb	Zinc (Zn)	<0.5 ppb
Mercury (Hg)	<0.2 ppb	Zirconium (Zr)	<0.1 ppb
Molybdenum (Mo)	<0.1 ppb		

Hydrochloric acid 35% d=1.18 **NEW SPEC.** for trace metal analysis

Primar Plus



packaging	product code
250 mL Coated Glass Bottle	H/1196/PB07
500 mL Coated Glass Bottle	H/1196/PB08
1 L Coated Glass Bottle	H/1196/PB15
2.5 L Coated Glass Bottle	H/1196/PB17

HCl
CAS: 7647-01-0
MW: 36.46
Boiling point: 57°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8/II
UN: 1789
HS-Nr: 28061000
EINECS: 231-595-7
Risk: R34, R37
Safety: S26, S45

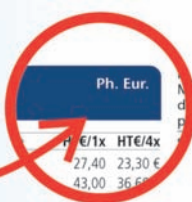


Assay: 35%

Guaranteed analysis

Aluminium (Al)	< 0.02 ppm	Indium (In)	<0.005 ppm
Antimony (Sb)	<0.005 ppm	Iron (Fe)	< 0.1 ppm
Arsenic (As)	<0.01 ppm	Lead (Pb)	<0.002 ppm
Barium (Ba)	<0.02 ppm	Lithium (Li)	<0.002 ppm
Beryllium (Be)	<0.005 ppm	Magnesium (Mg)	< 0.02 ppm
Bismuth (Bi)	<0.005 ppm	Manganese (Mn)	<0.002 ppm
Boron (B)	<0.005 ppm	Mercury (Hg)	<0.005 ppm
Cadmium (Cd)	<0.002 ppm	Molybdenum (Mo)	<0.002 ppm
Calcium (Ca)	<0.1 ppm	Nickel (Ni)	<0.005 ppm
Chromium (Cr)	<0.005 ppm	Potassium (K)	< 0.05 ppm
Cobalt (Co)	<0.002 ppm	Silver (Ag)	<0.002 ppm
Copper (Cu)	<0.005 ppm	Sodium (Na)	<0.2 ppm
Gallium (Ga)	<0.005 ppm	Strontium (Sr)	<0.002 ppm
Germanium (Ge)	<0.005 ppm		

Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopoeia
Read more on page 191



Thallium (Tl)	<0.005 ppm	Zinc (Zn)	<0.01 ppm
Tin (Sn)	<0.005 ppm	Chlorine	<1 ppm
Titanium (Ti)	<0.005 ppm	Residue after Ignition	< 2 ppm
Total phosphorus (P)	<0.2 ppm	Sulfate (SO ₄)	<1 ppm
Vanadium (V)	<0.002 ppm		

Hydrochloric acid 37% d=1.18 for AAS

packaging	product code
2.5 L Coated Glass Bottle	H/1185/PB17
HCl CAS: 7647-01-0 MW: 36.46 ADR/RID: 8/II UN: 1789	HS-Nr: 28273980 EINECS: 231-595-7 Risk: R34, R37 Safety: S24/25

Assay: 35 to 38%

Guaranteed analysis

Cadmium (Cd)	<0.02 ppm	Magnesium (Mg)	<0.2 ppm
Calcium (Ca)	<0.5 ppm	Manganese (Mn)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Copper (Cu)	<0.05 ppm	Potassium (K)	<0.2 ppm
Iron (Fe)	<0.2 ppm	Sodium (Na)	<1 ppm
Lead (Pb)	<0.05 ppm	Zinc (Zn)	<0.2 ppm

Hydrochloric acid has a concentration of 11.65 M (11.65 N).

Hydrochloric acid 37% d=1.18 for electronic use (MOS)

packaging	product code
2.5 L Plastic bottle	H/1111/PB17
HCl CAS: 7647-01-0 MW: 36.46 ADR/RID: 8/II UN: 1789	HS-Nr: 28273980 EINECS: 231-595-7 Risk: R34, R37 Safety: S24/25

Assay: 35.5 to 37.5%

Guaranteed analysis

Colour	<10 APHA	Manganese (Mn)	<0.02 ppm
Aluminium (Al)	<0.5 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.1 ppm	Nickel (Ni)	<0.01 ppm
Cadmium (Cd)	<0.05 ppm	Potassium (K)	<0.5 ppm
Calcium (Ca)	<1 ppm	Sodium (Na)	<2 ppm
Chlorine	<2 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.1 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total phosphorus (P)	<1 ppm
Copper (Cu)	<0.1 ppm	Total silicon (Si)	<0.5 ppm
Iron (Fe)	<0.5 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<0.1 ppm	Vanadium (V)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Zinc (Zn)	<0.2 ppm
Magnesium (Mg)	<0.5 ppm		

Filtered to 0.2 µm.

Hydrochloric acid 37% d=1.18 For foodstuffs analysis, low in lead

packaging	product code
500 mL Coated Glass Bottle	H/1180/PB08
HCl CAS: 7647-01-0 MW: 36.46 ADR/RID: 8/II UN: 1789	HS-Nr: 28273980 EINECS: 231-595-7 Risk: R34, R37 Safety: S24/25

Guaranteed analysis

Lead (Pb)	<0.005 ppm
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Save money!
Order 4 bottles in a box



Hydrochloric acid 35% d=1.18 **NEW SPEC.** Certified AR for analysis

packaging	product code
500 mL Plastic bottle	H/1200/PB08
1 L Plastic bottle	H/1200/PB15
2.5 L Plastic bottle	H/1200/PB17
2.5 L Coated Glass Bottle	H/1200/PC17
25 L Metal drum	H/1200/25

HCl CAS: 7647-01-0 MW: 36.46 Boiling point: 57°C Boiling pressure: 760 mmHg Melting point: -35°C	ADR/RID: 8/II UN: 1789 HS-Nr: 28061000 EINECS: 231-595-7 Risk: R34, R37 Safety: S26, S45
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Assay: 35%

Guaranteed analysis

Colour	<10 APHA	Manganese (Mn)	<0.02 ppm
Residue after ignition	<0.005%	Mercury (Hg)	<0.05 ppm
Aluminium (Al)	<0.5 ppm	Molybdenum (Mo)	<0.02 ppm
Arsenic (As)	<0.01 ppm	Nickel (Ni)	<0.1 ppm
Barium (Ba)	<0.1 ppm	Potassium (K)	<0.5 ppm
Cadmium (Cd)	<0.02 ppm	Silver (Ag)	<0.02 ppm
Calcium (Ca)	<1 ppm	Sodium (Na)	<2 ppm
Chlorine	<1 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Sulfate (SO ₄)	<5 ppm
Copper (Cu)	<0.1 ppm	Tin (Sn)	<0.1 ppm
Iron (Fe)	<0.5 ppm	Titanium (Ti)	<0.05 ppm
Lead (Pb)	<0.1 ppm	Total phosphorus (P)	<1 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.01 ppm
Magnesium (Mg)	<0.5 ppm	Zinc (Zn)	<0.5 ppm

Lot analysis on the label.

Hydrochloric acid is equivalent to a strength of 11.65M (11.65N).

see page 279 for suitable Tap & accessories.

Hydrochloric acid 37% d=1.18 extra pure

SLR

packaging	product code
1 L Plastic bottle	H/1150/PB15
2.5 L Plastic bottle	H/1150/PB17
5 L Plastic bottle	H/1150/21
25 L Metal drum	H/1150/25
45 L Plastic drum	H/1150/26

HCl CAS: 7647-01-0 MW: 36.46 ADR/RID: 8/II UN: 1789	HS-Nr: 28111900 EINECS: 231-595-7 Risk: R34, R37 Safety: S24/25
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Assay: 35 to 38%

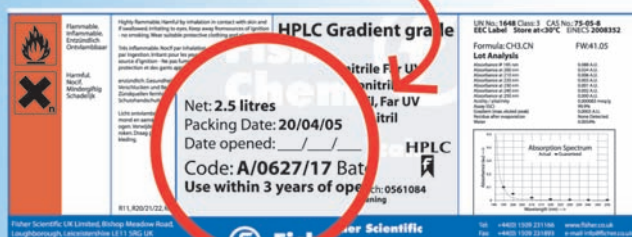
Guaranteed analysis

Colour	<20 APHA	Magnesium (Mg)	<5 ppm
Calcium (Ca)	<10 ppm	Potassium (K)	<5 ppm
Chlorine	<10 ppm	Sodium (Na)	<10 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm

Hydrochloric acid is equivalent to a strength of 11.65M (11.65N).

see page 279 for suitable Tap & accessories.

Use best before information on the label



Hydrochloric acid 32% d=1.16
for analysis

Certified AR



packaging	product code
1 L Plastic bottle	H/1100/PB15
2.5 L Plastic bottle	H/1100/PB17
45 L bottle	H/1100/26

HCl
CAS: 7647-01-0
MW: 36.46
Density at 20°C: 1.16
Boiling point: 57°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8/II
UN: 1789
HS-Nr: 28273980
EINECS: 231-595-7
Risk: R34, R37
Safety: S26, S45



Assay: 31.5 to 33%

Guaranteed analysis

Colour	<10 APHA	Nickel (Ni)	<0.05 ppm
Calcium (Ca)	<1 ppm	Potassium (K)	<0.5 ppm
Chlorine	<2 ppm	Sodium (Na)	<2 ppm
Chromium (Cr)	<0.05 ppm	Total phosphorus (P)	<1 ppm
Copper (Cu)	<0.05 ppm	Total silicon (Si)	<0.5 ppm
Iron (Fe)	<0.5 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<0.05 ppm	Zinc (Zn)	<0.2 ppm
Magnesium (Mg)	<0.5 ppm		

Typical analysis

Aluminium (Al)	<0.5 ppm	Manganese (Mn)	<0.02 ppm
Arsenic (As)	<0.05 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.1 ppm	Silver (Ag)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Hydrochloric acid is equivalent to a strength of 10.2M (10.2N).
Lot analysis on the label.

Hydrochloric acid 32% d=1.16
extra pure

SLR



packaging	product code
2.5 L Plastic bottle	H/1050/PB17
45 L bottle	H/1050/26

HCl
CAS: 7647-01-0
MW: 36.46
Density at 20°C: 1.16
Boiling point: 57°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8/II
UN: 1789
HS-Nr: 28273980
EINECS: 231-595-7
Risk: R34, R37
Safety: S26, S45



Assay: 31 to 33%

Guaranteed analysis

Colour	<20 APHA	Nickel (Ni)	<1 ppm
Calcium (Ca)	<10 ppm	Potassium (K)	<5 ppm
Chlorine	<10 ppm	Sodium (Na)	<10 ppm
Chromium (Cr)	<1 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<2 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<5 ppm		

Hydrochloric acid is equivalent to a strength of 10.2M (10.2N).

Hydrochloric acid 32% d=1.16
Technical

packaging	product code
2.5 L Plastic bottle	H/1000/PB17

HCl
CAS: 7647-01-0
MW: 36.46
ADR/RID: 8/II
UN: 1789

HS-Nr: 28273980
EINECS: 231-595-7
Risk: R34, R37
Safety: S24/25

Hydrochloric acid solution 5M
pure, Bench Reagent

packaging	product code
2.5 L Plastic bottle	J/4270/17
25 L Metal drum	J/4270/25

ADR/RID: 8/II
UN: 1789
HS-Nr: 38220000

EINECS: 231-595-7
Risk: R36/37/38
Safety: S26, S45



Manufactured to a tolerance of $\pm 2.5\%$.
see page 279 for suitable Tap & accessories.

Hydrochloric acid solution 2M (2N)
pure, Bench Reagent

packaging	product code
2.5 L Plastic bottle	J/4250/17

ADR/RID: 8/III
UN: 1789
HS-Nr: 38220000

EINECS: 231-595-7
Risk: R36/37/38
Safety: S26, S45



Guaranteed analysis

Molarity 1.95 to 2.05 M

Manufactured to a tolerance of $\pm 5\%$.

Hydrochloric acid solution 0.02M (0.02N) **NEW SPEC.**
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/4360/PB15
2.5 L Plastic bottle	J/4360/17

Density at 20°C: 1
HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.3\%$.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 0.1M (0.1N) **NEW SPEC.** Eur.Ph. , BP
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/4350/15
2.5 L Plastic bottle	J/4350/17
5 L Plastic bottle	J/4350/21
10 L Cubitainer	J/4350/24

Density at 20°C: 1
HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 0.1M (0.1N) **NEW SPEC.**
NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/4350C/05
6 ampoule	J/4350C/90

ADR/RID: 8/III
UN: 1789
HS-Nr: 38220000
EINECS: 231-595-7

Stabilised with 10 ppm of Mercury(II) chloride.
Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

pH Buffers

NIST Certified Standard
Solution & Concentrate
A full range to discover on page 45



Hydrochloric acid solution 0.2M (0.2N) **NEW SPEC.**

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/4340/15
2.5 L Plastic bottle	J/4340/17

Density at 20°C: 1
HS-Nr: 38220000
Risk: R36/37/38
Safety: S26, S45

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 0.5M (0.5N) **NEW SPEC.**

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/4330/15
2.5 L Plastic bottle	J/4330/17
25 L Metal drum	J/4330/25

Density at 20°C: 1
ADR/RID: 8/III
UN: 1789
HS-Nr: 38220000
EINECS: 231-595-7
Risk: R36/37/38
Safety: S26, S45

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.
see page for suitable Tap & accessories.

Hydrochloric acid solution 0.5M (0.5N) **NEW SPEC.**

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/4330C/05
6 ampoule	J/4330C/90

ADR/RID: 8/II
UN: 1789
HS-Nr: 38220000
EINECS: 231-595-7
Risk: R36/37/38
Safety: S26, S45

Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 1M (1N) **NEW SPEC.**

Eur.Ph. , USP, BP
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/4320/15
2.5 L Plastic bottle	J/4320/17
5 L Plastic bottle	J/4320/21
10 L Cubitainer	J/4320/24

Density at 20°C: 1
ADR/RID: 8/III
UN: 1789
HS-Nr: 38220000
EINECS: 231-595-7
Risk: R36/37/38
Safety: S26, S45

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 1M (1N) **NEW SPEC.**

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/4320C/05
6 ampoule	J/4320C/90

ADR/RID: 8/II
UN: 1789
HS-Nr: 38220000
EINECS: 231-595-7
Risk: R34, R37
Safety: S26, S45

Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 2M (2N) **NEW SPEC.**

Eur.Ph. , BP
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/4315/15
2.5 L Plastic bottle	J/4315/17

Density at 20°C: 1
ADR/RID: 8/III
UN: 1789
HS-Nr: 28061000
EINECS: 231-595-7
Risk: R36/37/38
Safety: S26, S45

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Hydrochloric acid solution 5M (5N)

Standard solution ready to use for volumetric analysis

packaging	product code
1 L Plastic bottle	J/4310/15
2.5 L Plastic bottle	J/4310/17

Density at 20°C: 1.08
ADR/RID: 8/II
UN: 1789
HS-Nr: 38220000
EINECS: 231-595-7
Risk: R36/37/38
Safety: S26

Manufactured to a tolerance of $\pm 0.5\%$.
See the full range of Standard Volumetric solution page 266.

Hydrofluoric acid 47-51% **NEW SPEC.**

OPTIMA
for ultra trace analysis



packaging	product code
250 mL Bottle Teflon PFA	H/1435/07
500 mL Bottle Teflon PFA	H/1435/08
1 L Bottle Teflon PFA	H/1435/15

HF
CAS: 7664-39-3
MW: 20.01
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C
ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45

Assay (HF): 47 to 51%

Guaranteed analysis

Aluminium (Al)	<20 ppt	Molybdenum (Mo)	<10 ppt
Antimony (Sb)	<20 ppt	Neodymium (Nd)	<1 ppt
Arsenic (As)	<50 ppt	Nickel (Ni)	<50 ppt
Barium (Ba)	<10 ppt	Niobium (Nb)	<10 ppt
Beryllium (Be)	<10 ppt	Palladium (Pd)	<20 ppt
Bismuth (Bi)	<10 ppt	Platinum (Pt)	<20 ppt
Boron (B)	<100 ppt	Potassium (K)	<10 ppt
Cadmium (Cd)	<10 ppt	Praseodymium (Pr)	<1 ppt
Calcium (Ca)	<20 ppt	Rhenium (Re)	<10 ppt
Cerium (Ce)	<10 ppt	Rhodium (Rh)	<20 ppt
Chromium (Cr)	<20 ppt	Rubidium (Rb)	<20 ppt
Cobalt (Co)	<10 ppt	Ruthenium (Ru)	<20 ppt
Copper (Cu)	<20 ppt	Samarium (Sm)	<1 ppt
Dysprosium (Dy)	<1 ppt	Scandium (Sc)	<10 ppt
Erbium (Er)	<1 ppt	Silver (Ag)	<10 ppt
Europium (Eu)	<1 ppt	Sodium (Na)	<10 ppt
Gadolinium (Gd)	<1 ppt	Strontium (Sr)	<10 ppt
Gallium (Ga)	<10 ppt	Tellurium (Te)	<1 ppt
Germanium (Ge)	<10 ppt	Terbium (Tb)	<1 ppt
Gold (Au)	<20 ppt	Thallium (Tl)	<10 ppt
Hafnium (Hf)	<10 ppt	Thorium (Th)	<1 ppt
Holmium (Ho)	<1 ppt	Thulium (Tm)	<1 ppt
Indium (In)	<1 ppt	Tin (Sn)	<20 ppt
Iron (Fe)	<20 ppt	Titanium (Ti)	<50 ppt
Lanthanum (La)	<10 ppt	Tungsten (W)	<20 ppt
Lead (Pb)	<10 ppt	Uranium (U)	<1 ppt
Lithium (Li)	<10 ppt	Vanadium (V)	<10 ppt
Lutetium (Lu)	<1 ppt	Ytterbium (Yb)	<1 ppt
Magnesium (Mg)	<10 ppt	Yttrium (Y)	<1 ppt
Manganese (Mn)	<10 ppt	Zinc (Zn)	<20 ppt
Mercury (Hg)	<100 ppt	Zirconium (Zr)	<10 ppt

Hydrofluoric acid 47-51%
for trace metal analysis

NEW

Trace metal grade



packaging	product code
500 mL LDPE bottle	H/1432/08

HF
CAS: 7664-39-3
MW: 20
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
EINECS: 231-634-8
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45



Assay: 47 to 51%

Guaranteed analysis

Colour	<10 APHA	Neodymium (Nd)	<0.1 ppb
Aluminium (Al)	<0.5 ppb	Nickel (Ni)	<0.1 ppb
Antimony (Sb)	<0.1 ppb	Niobium (Nb)	<0.5 ppb
Arsenic (As)	<0.1 ppb	Palladium (Pd)	<0.5 ppb
Barium (Ba)	<0.1 ppb	Platinum (Pt)	<0.5 ppb
Beryllium (Be)	<0.1 ppb	Potassium (K)	<0.2 ppb
Bismuth (Bi)	<0.1 ppb	Praseodymium (Pr)	<0.1 ppb
Boron (B)	<0.5 ppb	Rhenium (Re)	<0.1 ppb
Cadmium (Cd)	<0.1 ppb	Rhodium (Rh)	<0.5 ppb
Calcium (Ca)	<0.5 ppb	Rubidium (Rb)	<0.5 ppb
Cerium (Ce)	<0.5 ppb	Ruthenium (Ru)	<0.1 ppb
Cesium (Cs)	<0.5 ppb	Samarium (Sm)	<0.1 ppb
Chromium (Cr)	<0.1 ppb	Scandium (Sc)	<0.1 ppb
Cobalt (Co)	<0.1 ppb	Selenium (Se)	<0.1 ppb
Copper (Cu)	<0.1 ppb	Silver (Ag)	<0.1 ppb
Dysprosium (Dy)	<0.1 ppb	Sodium (Na)	<0.5 ppb
Erbium (Er)	<0.1 ppb	Strontium (Sr)	<0.1 ppb
Europium (Eu)	<0.1 ppb	Tantalum (Ta)	<0.1 ppb
Fluorosilicic acid (SiF ₆)	<20 ppm	Tellurium (Te)	<0.1 ppb
Gadolinium (Gd)	<0.1 ppb	Terbium (Tb)	<0.1 ppb
Gallium (Ga)	<0.1 ppb	Thallium (Tl)	<0.5 ppb
Germanium (Ge)	<0.1 ppb	Thorium (Th)	<0.1 ppb
Gold (Au)	<0.5 ppb	Thulium (Tm)	<0.1 ppb
Hafnium (Hf)	<0.1 ppb	Tin (Sn)	<0.1 ppb
Holmium (Ho)	<0.1 ppb	Titanium (Ti)	<0.5 ppb
Indium (In)	<0.5 ppb	Total chloride (Cl)	<4 ppm
Iron (Fe)	<0.5 ppb	Total phosphorus (P)	<0.05 ppm
Lanthanum (La)	<0.1 ppb	Total sulphur (S)	<0.1 ppm
Lead (Pb)	<0.1 ppb	Tungsten (W)	<0.5 ppb
Lithium (Li)	<0.1 ppb	Uranium (U)	<0.1 ppb
Lutetium (Lu)	<0.1 ppb	Vanadium (V)	<0.1 ppb
Magnesium (Mg)	<0.2 ppb	Ytterbium (Yb)	<0.5 ppb
Manganese (Mn)	<0.2 ppb	Yttrium (Y)	<0.5 ppb
Mercury (Hg)	<1 ppb	Zinc (Zn)	<0.1 ppb
Molybdenum (Mo)	<0.2 ppb	Zirconium (Zr)	<0.1 ppb

Hydrofluoric acid 48%
for electronic use (MOS)

packaging	product code
2.5 L Plastic bottle	H/1425/17

HF
CAS: 7664-39-3
MW: 20.01
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
EINECS: 231-634-8
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45



Assay: >48%

Guaranteed analysis

Colour	<10 APHA	Molybdenum (Mo)	<0.05 ppm
Aluminium (Al)	<0.5 ppm	Nickel (Ni)	<0.1 ppm
Barium (Ba)	<0.02 ppm	Potassium (K)	<0.1 ppm
Cadmium (Cd)	<0.02 ppm	Sodium (Na)	<0.2 ppm
Calcium (Ca)	<0.5 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.05 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total chloride (Cl)	<0.0005%
Copper (Cu)	<0.1 ppm	Total phosphorus (P)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<0.1 ppm	Total sulphur (S)	<2 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Magnesium (Mg)	<0.2 ppm	Zinc (Zn)	<0.5 ppm
Manganese (Mn)	<0.05 ppm		

Hydrofluoric acid 48%
for analysis

Certified AR



packaging	product code
1 L Plastic bottle	H/1420/15
2.5 L Plastic bottle	H/1420/17

HF
CAS: 7664-39-3
MW: 20.01
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
EINECS: 231-634-8
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45



Assay: >48%

Guaranteed analysis

Colour	<10 APHA	Nickel (Ni)	<0.05 ppm
Calcium (Ca)	<0.5 ppm	Potassium (K)	<0.1 ppm
Chromium (Cr)	<0.05 ppm	Sodium (Na)	<0.2 ppm
Copper (Cu)	<0.1 ppm	Total chloride (Cl)	<0.0005 %
Iron (Fe)	<0.2 ppm	Total phosphorus (P)	<0.5 ppm
Lead (Pb)	<0.1 ppm	Total silicon (Si)	<10 ppm
Magnesium (Mg)	<0.2 ppm	Total sulphur (S)	<2 ppm
Manganese (Mn)	<0.05 ppm	Zinc (Zn)	<0.1 ppm

Typical analysis

Aluminium (Al)	<0.05 ppm	Silver (Ag)	<0.02 ppm
Barium (Ba)	<0.1 ppm	Strontium (Sr)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Molybdenum (Mo)	<0.05 ppm		

Lot analysis on the label.

Hydrofluoric acid 40%
for analysis

Certified AR



packaging	product code
1 L Plastic bottle	H/1400/15
2.5 L Plastic bottle	H/1400/17

HF
CAS: 7664-39-3
MW: 20.01
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
EINECS: 231-634-8
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45



Assay: >40%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Sodium (Na)	<0.5 ppm
Chromium (Cr)	<0.05 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<0.1 ppm	Total phosphorus (P)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<0.05 ppm	Total sulphur (S)	<2 ppm
Magnesium (Mg)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Nickel (Ni)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.05 ppm
Barium (Ba)	<0.1 ppm	Silver (Ag)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Manganese (Mn)	<0.05 ppm		

Lot analysis on the label.

The hydrofluoric acid 40% has a concentration of 22.6 M (22.6 N).

Hydrofluoric acid 40%
extra pure

SLR



packaging	product code
1 L Plastic bottle	H/1350/15
2.5 L Plastic bottle	H/1350/17

HF
CAS: 7664-39-3
MW: 20.01
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
EINECS: 231-634-8
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45



Assay: >40%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Potassium (K)	<5 ppm
Chromium (Cr)	<1 ppm	Sodium (Na)	<10 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<5 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<10 ppm
Nickel (Ni)	<1 ppm	Zinc (Zn)	<5 ppm

The hydrofluoric acid 40% has a concentration of 22.6 M (22.6 N).

Hydrofluoric acid 58-62%

Technical

packaging	product code
1 L Plastic bottle	H/1300/15
2.5 L Plastic bottle	H/1300/17

HF
CAS: 7664-39-3
MW: 20.01
Density at 20°C: 1.15
Boiling point: 105°C
Boiling pressure: 760 mmHg
Melting point: -35°C

ADR/RID: 8(6.1)/II
UN: 1790
HS-Nr: 28111100
EINECS: 231-634-8
Risk: R26/27/28, R35
Safety: S7/9, S26, S36/37, S45



Assay: 58 to 62%

Hydrofluoric Acid Antidote Gel

pure

packaging	product code
6 Tubes 25 g	H/1430/90

ADR/RID: /II
HS-Nr: 38220000

Guaranteed analysis

Cesium (Cs) <10 ppm

Hydrogen peroxide 6%w/v (20 volumes) Certified AR for analysis



packaging	product code
1 L Plastic bottle	H/1600/15
2.5 L Plastic bottle	H/1600/17

H₂O₂
CAS: 7722-84-1
MW: 34.01
Density at 20°C: 1.2
Boiling point: 114°C
Melting point: -52°C

ADR/RID: 5.1(8)/II
UN: 2014
HS-Nr: 28470000
EINECS: 231-766-0
Risk: R36
Safety: S26, S28A



Assay: > 6% w/v

Guaranteed analysis

Acidity	<0.001 meq/g	Potassium (K)	<1 ppm
Colour	<10 APHA	Sodium (Na)	<5 ppm
Calcium (Ca)	<5 ppm	Total chloride (Cl)	<0.0001 %
Copper (Cu)	<0.1 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<0.2 ppm	Total silicon (Si)	<0.5 ppm
Lead (Pb)	<0.1 ppm	Total sulphur (S)	<2 ppm
Magnesium (Mg)	<1 ppm	Zinc (Zn)	<0.5 ppm

Typical analysis

Aluminium (Al)	<0.5 ppm	Mercury (Hg)	<0.1 ppm
Arsenic (As)	<0.1 ppm	Molybdenum (Mo)	<0.1 ppm
Barium (Ba)	<0.1 ppm	Nickel (Ni)	<0.1 ppm
Cadmium (Cd)	<0.1 ppm	Silver (Ag)	<0.1 ppm
Chromium (Cr)	<0.1 ppm	Strontium (Sr)	<0.1 ppm
Cobalt (Co)	<0.1 ppm	Titanium (Ti)	<0.1 ppm
Lithium (Li)	<0.1 ppm	Vanadium (V)	<0.1 ppm
Manganese (Mn)	<0.1 ppm		

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono & Multi-elemental standard solution to discover on page 256



Hydrogen peroxide 6%w/v (20 volumes) extra pure

SLR



packaging	product code
1 L Plastic bottle	H/1550/15
2.5 L Plastic bottle	H/1550/17

H₂O₂
CAS: 7722-84-1
MW: 34
Density at 20°C: 1.2
Boiling point: 114°C
Melting point: -52°C

ADR/RID: 5.1(8)/II
HS-Nr: 28470000
EINECS: 231-766-0
Risk: R36
Safety: S26, S28A



Assay: > 6% w/v

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<5 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<2 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<5 ppm	Zinc (Zn)	<2 ppm

Hydrogen peroxide 12%w/v (40 volumes)

pure

packaging	product code
2.5 L Plastic bottle	H/1650/17

H₂O₂
CAS: 7722-84-1
MW: 34.01
Density at 20°C: 1.039 to 1.044
ADR/RID: 5.1(8)/II
UN: 2984

HS-Nr: 28470000
EINECS: 231-765-0
Risk: R22, R41
Safety: S26, S28A, S36/37/39, S45



Assay: > 12% w/v

Hydrogen peroxide 30-32 %

NEW

OPTIMA



packaging	product code
500 mL Teflon FEP bottle	H/1830/08

H₂O₂
CAS: 231-765-0
MW: 34.01
Density at 20°C: 2.11
Boiling point: 108°C
Boiling pressure: 760 mmHg
Melting point: 33°C

ADR/RID: 5.1(8)/II
UN: 2014
HS-Nr: 28470000
EINECS: 231-765-0
Risk: R22, R41
Safety: S26, S39, S45



Assay: 30 to 32%

Guaranteed analysis

Aluminium (Al)	<10 ppt	Neodymium (Nd)	<0.5 ppt
Antimony (Sb)	<1 ppt	Nickel (Ni)	<10 ppt
Arsenic (As)	<10 ppt	Niobium (Nb)	<1 ppt
Barium (Ba)	<5 ppt	Palladium (Pd)	<10 ppt
Beryllium (Be)	<5 ppt	Potassium (K)	<10 ppt
Bismuth (Bi)	<10 ppt	Praseodymium (Pr)	<0.5 ppt
Cadmium (Cd)	<1 ppt	Rhenium (Re)	<5 ppt
Calcium (Ca)	<50 ppt	Rhodium (Rh)	<5 ppt
Cerium (Ce)	<1 ppt	Rubidium (Rb)	<5 ppt
Cesium (Cs)	<1 ppt	Ruthenium (Ru)	<10 ppt
Chromium (Cr)	<5 ppt	Samarium (Sm)	<0.5 ppt
Cobalt (Co)	<5 ppt	Scandium (Sc)	<10 ppt
Copper (Cu)	<5 ppt	Selenium (Se)	<50 ppt
Dysprosium (Dy)	<0.5 ppt	Silver (Ag)	<10 ppt
Erbium (Er)	<0.5 ppt	Sodium (Na)	<10 ppt
Europium (Eu)	<0.5 ppt	Strontium (Sr)	<1 ppt
Gadolinium (Gd)	<0.5 ppt	Tantalum (Ta)	<10 ppt
Gallium (Ga)	<5 ppt	Tellurium (Te)	<1 ppt
Germanium (Ge)	<10 ppt	Terbium (Tb)	<0.5 ppt
Gold (Au)	<10 ppt	Thallium (Tl)	<1 ppt
Hafnium (Hf)	<1 ppt	Thorium (Th)	<0.5 ppt
Holmium (Ho)	<0.5 ppt	Thulium (Tm)	<0.5 ppt
Indium (In)	<0.5 ppt	Tin (Sn)	<10 ppt
Iron (Fe)	<10 ppt	Titanium (Ti)	<10 ppt
Lanthanum (La)	<0.5 ppt	Tungsten (W)	<10 ppt
Lead (Pb)	<1 ppt	Uranium (U)	<0.5 ppt
Lithium (Li)	<1 ppt	Vanadium (V)	<5 ppt
Lutetium (Lu)	<0.5 ppt	Ytterbium (Yb)	<0.5 ppt
Magnesium (Mg)	<10 ppt	Yttrium (Y)	<1 ppt
Manganese (Mn)	<5 ppt	Zinc (Zn)	<10 ppt
Mercury (Hg)	<100 ppt	Zirconium (Zr)	<10 ppt
Molybdenum (Mo)	<5 ppt		

Hydrogen peroxide 30-32 % NEW Trace metal grade for trace metal analysis

TraceMetal	packaging	product code
	1 L LDPE bottle	H/1823/15
H ₂ O ₂ CAS: 231-765-0 MW: 34.01 Density at 20°C: 1.11 Boiling point: 108°C Boiling pressure: 760 mmHg Melting point: 33°C	ADR/RID: 5.1(8)/II UN: 2014 HS-Nr: 28470000 EINECS: 231-765-0 Risk: R22, R41 Safety: S26, S39, S45	Xn 
Assay: 30 to 32%		
Guaranteed analysis		
Aluminium (Al) <1 ppb	Neodymium (Nd) <0.1 ppb	
Antimony (Sb) <0.5 ppb	Nickel (Ni) <0.1 ppb	
Arsenic (As) <0.5 ppb	Niobium (Nb) <0.1 ppb	
Barium (Ba) <0.5 ppb	Palladium (Pd) <0.1 ppb	
Beryllium (Be) <0.5 ppb	Platinum (Pt) <0.5 ppb	
Bismuth (Bi) <0.1 ppb	Potassium (K) <1 ppb	
Boron (B) <1 ppb	Praseodymium (Pr) <0.1 ppb	
Cadmium (Cd) <0.5 ppb	Rhenium (Re) <0.1 ppb	
Calcium (Ca) <1 ppb	Rhodium (Rh) <0.1 ppb	
Cerium (Ce) <0.1 ppb	Rubidium (Rb) <0.1 ppb	
Cesium (Cs) <0.1 ppb	Ruthenium (Ru) <0.1 ppb	
Chromium (Cr) <0.5 ppb	Samarium (Sm) <0.1 ppb	
Cobalt (Co) <0.5 ppb	Scandium (Sc) <0.1 ppb	
Copper (Cu) <1 ppb	Selenium (Se) <0.5 ppb	
Dysprosium (Dy) <0.1 ppb	Silver (Ag) <0.1 ppb	
Erbium (Er) <0.1 ppb	Sodium (Na) <1 ppb	
Europium (Eu) <0.1 ppb	Strontium (Sr) <0.1 ppb	
Gadolinium (Gd) <0.1 ppb	Tantalum (Ta) <0.1 ppb	
Gallium (Ga) <0.1 ppb	Tellurium (Te) <0.1 ppb	
Germanium (Ge) <0.1 ppb	Terbium (Tb) <0.1 ppb	
Gold (Au) <0.5 ppb	Thallium (Tl) <0.1 ppb	
Hafnium (Hf) <0.1 ppb	Thorium (Th) <0.1 ppb	
Holmium (Ho) <0.1 ppb	Thulium (Tm) <0.1 ppb	
Indium (In) <0.1 ppb	Tin (Sn) <0.5 ppb	
Iron (Fe) <1 ppb	Titanium (Ti) <0.5 ppb	
Lanthanum (La) <0.1 ppb	Tungsten (W) <0.5 ppb	
Lead (Pb) <0.1 ppb	Uranium (U) <0.5 ppb	
Lithium (Li) <0.5 ppb	Vanadium (V) <0.5 ppb	
Lutetium (Lu) <0.1 ppb	Ytterbium (Yb) <0.1 ppb	
Magnesium (Mg) <1 ppb	Yttrium (Y) <0.1 ppb	
Manganese (Mn) <0.5 ppb	Zinc (Zn) <1 ppb	
Mercury (Hg) <0.1 ppb	Zirconium (Zr) <0.5 ppb	
Molybdenum (Mo) <0.5 ppb		

Hydrogen peroxide 30%w/v (100 volumes) Primar for trace metal analysis

Primar	packaging	product code
	1 L Plastic bottle	H/1820/15
H ₂ O ₂ CAS: 7722-84-1 MW: 34.01 Density at 20°C: 1.11 Boiling point: 108°C Boiling pressure: 760 mmHg Melting point: -33°C	ADR/RID: 5.1(8)/II UN: 2014 HS-Nr: 28470000 EINECS: 231-765-0 Risk: R22, R41 Safety: S26, S28A, S36/37/39, S45	Xn 
Assay: > 30% w/v		
Guaranteed analysis		
Aluminium (Al) <0.1 ppm	Molybdenum (Mo) <0.02 ppm	
Arsenic (As) <0.1 ppm	Nickel (Ni) <0.005 ppm	
Barium (Ba) <0.005 ppm	Potassium (K) <0.2 ppm	
Cadmium (Cd) <0.005 ppm	Silver (Ag) <0.01 ppm	
Calcium (Ca) <0.2 ppm	Sodium (Na) <2 ppm	
Chromium (Cr) <0.05 ppm	Strontium (Sr) <0.01 ppm	
Cobalt (Co) <0.005 ppm	Titanium (Ti) <0.01 ppm	
Copper (Cu) <0.01 ppm	Total chloride (Cl) <0.0005%	
Iron (Fe) <0.2 ppm	Total phosphorus (P) <2 ppm	
Lead (Pb) <0.01 ppm	Total silicon (Si) <0.1 ppm	
Lithium (Li) <0.005 ppm	Total sulphur (S) <0.5 ppm	
Magnesium (Mg) <0.1 ppm	Vanadium (V) <0.01 ppm	
Manganese (Mn) <0.005 ppm	Zinc (Zn) <0.02 ppm	

Hydrogen peroxyde 30%w/v (100 volumes) for electronic use (MOS)

packaging	product code
2.5 L Plastic bottle	H/1811/17
H ₂ O ₂ CAS: 7722-84-1 MW: 34.01 Density at 20°C: 1.11 Boiling point: 108°C Boiling pressure: 760 mmHg Melting point: -33°C	ADR/RID: 5.1(8)/II UN: 2014 HS-Nr: 28470000 EINECS: 231-765-0 Risk: R22, R41 Safety: S26, S28A, S36/37/39, S45
Assay: > 30% w/v	
Guaranteed analysis	
Acidity / Alkalinity <0.005 meq/g	Molybdenum (Mo) <0.1 ppm
Colour <10 APHA	Nickel (Ni) <0.1 ppm
Aluminium (Al) <0.5 ppm	Potassium (K) <1 ppm
Barium (Ba) <0.1 ppm	Sodium (Na) <5 ppm
Cadmium (Cd) <0.1 ppm	Strontium (Sr) <0.1 ppm
Calcium (Ca) <5 ppm	Titanium (Ti) <0.1 ppm
Chromium (Cr) <0.1 ppm	Total chloride (Cl) <0.0005%
Cobalt (Co) <0.1 ppm	Total nitrogen (N) <50 ppm
Copper (Cu) <0.1 ppm	Total phosphorus (P) <5 ppm
Iron (Fe) <0.2 ppm	Total silicon (Si) <0.5 ppm
Lead (Pb) <0.1 ppm	Total sulphur (S) <2 ppm
Lithium (Li) <0.1 ppm	Vanadium (V) <0.1 ppm
Magnesium (Mg) <1 ppm	Zinc (Zn) <0.5 ppm
Manganese (Mn) <0.1 ppm	
Filtered to 0.2 µm.	

Hydrogen peroxide 30%w/v (100 volumes) Certified AR for analysis

Certified AR	packaging	product code
	1 L Plastic bottle	H/1800/15
	2.5 L Plastic bottle	H/1800/17
	25 L Metal drum	H/1800/25
H ₂ O ₂ CAS: 7722-84-1 MW: 34.01 Density at 20°C: 1.11 Boiling point: 108°C Boiling pressure: 760 mmHg Melting point: -33°C	ADR/RID: 5.1(8)/II UN: 2014 HS-Nr: 28470000 EINECS: 231-765-0 Risk: R22, R41 Safety: S26, S28A, S36/37/39, S45	Xn 
Assay: > 30% w/v		
Guaranteed analysis		
Acidity <0.005 meq/g	Sodium (Na) <5 ppm	
Colour <10 APHA	Total chloride (Cl) <0.0005 %	
Calcium (Ca) <5 ppm	Total nitrogen (N) <50 ppm	
Copper (Cu) <0.1 ppm	Total phosphorus (P) <5 ppm	
Iron (Fe) <0.2 ppm	Total silicon (Si) <0.5 ppm	
Lead (Pb) <0.1 ppm	Total sulphur (S) <0.5 ppm	
Magnesium (Mg) <1 ppm	Zinc (Zn) <0.5 ppm	
Potassium (K) <1 ppm		
Typical analysis		
Aluminium (Al) <0.5 ppm	Manganese (Mn) <0.1 ppm	
Arsenic (As) <0.5 ppm	Molybdenum (Mo) <0.1 ppm	
Barium (Ba) <0.1 ppm	Nickel (Ni) <0.1 ppm	
Cadmium (Cd) <0.1 ppm	Silver (Ag) <0.1 ppm	
Chromium (Cr) <0.1 ppm	Strontium (Sr) <0.1 ppm	
Cobalt (Co) <0.1 ppm	Titanium (Ti) <0.1 ppm	
Lithium (Li) <0.1 ppm	Vanadium (V) <0.1 ppm	

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Hydrogen peroxide 30%w/v (100 volumes) SLR extra pure

Specified LR	packaging	product code
	1 L Plastic bottle	H/1750/15
	2.5 L Plastic bottle	H/1750/17
H ₂ O ₂ CAS: 7722-84-1 MW: 34.01 Density at 20°C: 1.11 Boiling point: 108°C Boiling pressure: 760 mmHg Melting point: -33°C	ADR/RID: 5.1(8)/II UN: 2014 HS-Nr: 38220000 EINECS: 231-765-0 Risk: R22, R41 Safety: S26, S28A, S36/37/39, S45	Xn 
Assay: > 30% w/v		

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<5 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<2 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<5 ppm	Zinc (Zn)	<2 ppm

Hydrogen peroxide 60% w/v (200 volumes)
extra pure

SLR



packaging	product code
1 L Plastic bottle	H/1862/15

H ₂ O ₂	ADR/RID: 5.1(8)/II	
CAS: 7722-84-1	UN: 2014	
MW: 34.01	HS-Nr: 28470000	
Density at 20°C: >1.19	EINECS: 231-765-0	
Boiling point: 108°C	Risk: R8, R20/22, R34	
Boiling pressure: 760 mmHg	Safety: S17, S26, S28A, S36/37/39, S45	
Melting point: -33°C		

Assay: > 59% w/v

Guaranteed analysis

Acidity	<0.006 meq/g	Potassium (K)	<0.01%
Calcium (Ca)	<0.001%	Sodium (Na)	<5 ppm
Copper (Cu)	<1 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<2 ppm	Total phosphorus (P)	<0.01%
Lead (Pb)	<1 ppm	Total sulphur (S)	<3 ppm
Magnesium (Mg)	<5 ppm		

Hydrogen peroxide 60% w/v (200 volumes)
pure

packaging	product code
1 L Plastic bottle	H/1860/15

H ₂ O ₂	ADR/RID: 5.1(8)/II	
CAS: 7722-84-1	UN: 2014	
MW: 34.01	HS-Nr: 28470000	
Density at 20°C: >1.19	EINECS: 231-765-0	
Boiling point: 108°C	Risk: R8, R20/22, R34	
Boiling pressure: 760 mmHg	Safety: S17, S26, S28A, S36/37/39, S45	
Melting point: -33°C		

Assay: > 59% w/v

Hydroquinone See Quinol, page 222



Hydroxyacetic acid See Glycolic acid, page 110



2-Hydroxybenzaldehyde

See Salicylaldehyde, page 224



Hydroxybenzene See Phenol detached crystals, page 195



2-Hydroxybenzoic acid See Salicylic acid, page 224



3-Hydroxy-4-(1-hydroxy-2-naphthylazo)-7-nitro-1-naphthalene sulfonic acid, sodium salt

See Eriochrome black T, page 95



Hydroxylammonium chloride
extra pure

SLR



packaging	product code
100 g Plastic jar	H/1900/48
500 g Plastic jar	H/1900/53
1 kg Plastic jar	H/1900/60

NH ₂ OH.HCl	HS-Nr: 28251000	
CAS: 5470-11-1	EINECS: 226-798-2	
MW: 69.49	Risk: R22, R36/38, R43, R48/22, R50	
Melting point: 155-158°C	Safety: S22, S24, S37, S61	
ADR/RID: 8/III		
UN: 2923		

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<100 ppm		

Hydroxylammonium sulfate
for analysis

Certified AR



packaging	product code
100 g Plastic Jar	H/2001/48

(NH ₂ OH) ₂ .H ₂ SO ₄	HS-Nr: 28251000	
CAS: 10039-54-0	EINECS: 233-118-8	
MW: 164.13	Risk: R22, R36/38, R43, R48/22, R50	
Melting point: 170 °C	Safety: S22, S24, S37, S61	
ADR/RID: 8/III		
UN: 2865		

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	3 to 4	Magnesium (Mg)	<5 ppm
Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<20 ppm
Chromium (Cr)	<2 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<2 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<2 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<2 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<2 ppm	Zinc (Zn)	<5 ppm

1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid
pure, metal indicator (Calmagite)

packaging	product code
5 g Glass Jar	H/2350/44

C ₁₇ H ₁₄ N ₂ O ₅ S	HS-Nr: 29270000
CAS: 3147-14-6	EINECS: 221-563-0
MW: 358.37	Safety: S24/25
Melting point: 300°C	

Guaranteed analysis

IR Analysis Conform

1-Hydroxynaphthalene See 1-Naphthol, page 170



4--1(4H)-naphthalenone

See p-Naphtholbenzein, page 171



7-Hydroxy-8-(phenylazo)-1.3-naphthalenedi-sulfonic acid, disodium salt

See Orange G sodium salt, page 179



2-Hydroxy-1.2,3-propanetricarboxylic acid

See Citric acid, anhydrous, page 69



8-Hydroxyquinoline extra pure

SLR



packaging	product code
100 g Glass packaging	H/2500/48

C₈H₇NO
CAS: 148-24-3
MW: 145.16
Boiling point: 267°C
Boiling pressure: 752 mmHg

Melting point: 72 to 74°C
HS-Nr: 29334990
EINECS: 205-711-1
Risk: R22, R36/37/38, R68
Safety: S26, S36/37/39, S45

Xn



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<20 ppm

Guaranteed analysis

Melting Point tested	90 to 92°C	Lead (Pb)	<5 ppm
Copper (Cu)	<5 ppm	Mercury (Hg)	<2 ppm
Iron (Fe)	<5 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)
325 nm (sol. aqu. 12%) <0.15 A.U.

Imidazole pure

packaging	product code
100 g Plastic jar	I/0010/48
500 g Plastic jar	I/0010/53

C₃H₄N₂
CAS: 288-32-4
MW: 68.08

Boiling point: 255 to 256°C
Boiling pressure: 760 mmHg
Melting point: 86 to 90°C
Flash point: 145°C

ADR/RID: 8/III
UN: 3263
HS-Nr: 29332990
EINECS: 206-019-2
Risk: R22, R34, R63
Safety: S22, S26, S36/37/39, S45

Assay: >99%



DL-Hydroxysuccinic acid

See DL-Malic acid, page 154



2-Hydroxytoluene

See o-Cresol, page 76



3-Hydroxytoluene

See m-Cresol, page 76



4-Hydroxytoluene

See p-Cresol, page 76



Hypophosphorous acid extra pure

SLR



packaging	product code
500 mL Plastic bottle	H/2650/PB08

H₃PO₂
CAS: 6303-21-5
MW: 66
Density at 20°C: 1.2 to 1.22
Boiling point: 108°C
Boiling pressure: 1013 hPa
Melting point: -25°C

ADR/RID: 8/II
UN: 3264
HS-Nr: 28111900
EINECS: 228-601-5
Risk: R34
Safety: S26, S36/37/39, S45



Assay: >49%

Guaranteed analysis

Lead (Pb)	<20 ppm	Total chloride (Cl)	<0.1%
Sulfate (SO ₄)	<0.1%		

Imidazole extra pure

SLR

packaging	product code
100 g Plastic jar	I/0012/48
1 kg Plastic jar	I/0012/60
5 kg Plastic drum	I/0012/65
10 kg Plastic screw top Keg	I/0012/68

C₃H₄N₂
CAS: 288-32-4
MW: 68.08
Boiling point: 255 to 256°C
Boiling pressure: 760 mmHg
Melting point: 86 to 90°C
Flash point: 145°C

ADR/RID: 8/III
UN: 3263
HS-Nr: 29332990
EINECS: 206-019-2
Risk: R22, R34, R63
Safety: S22, S26, S36/37/39, S45



Assay: >99.5%

2.2'-Iminodiethanol

See Diethanolamine, page 84



Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.
Choose between Optima®,
Trace Metal® & Primar Plus® grade.

Read more page 9



pH Indicator

designation	pH range	colour change	packsize	product code	page
Alizarin	11.0-13.0	pink to violet	10 g	A/1460/45	11
Alizarin red S, C.I.58005	4.0-6.0	yellow to orange-red	25 g	A/1520/46	11
Bromocresol green	3.6-5.2	yellow to blue	1 g	B/4320/43	42
	3.6-5.2	yellow to blue	5 g	B/4320/44	42
	3.6-5.2	yellow to blue	25 g	B/4320/46	42
Bromocresol purple	5.2-6.8	yellow to violet	5 g	B/4330/44	43
	5.2-6.8	yellow to violet	25 g	B/4330/46	43
Bromophenol blue	2.8-4.6	yellow to blue-violet	5 g	B/4630/44	43
	2.8-4.6	yellow to blue-violet	25 g	B/4630/46	43
Congo red	3.0-5.0	violet to red-orange	25 g	C/7020/46	72
Cresol red	0.2-1.8	red to yellow	5 g	C/7460/44	76
Full range indicator, pH range 1-13	1.0-13.0	colour chart on bottle	100 mL	U/0025/PB05	107
	1.0-13.0	colour chart on bottle	500 mL	U/0025/PB08	107
Litmus	5.0-8.0	red to blue	25 g	L/2500/46	149
Methyl orange solid C.I. 13025	2.9-4.6	orange red to orange yellow	25 g	M/5000/46	166
	2.9-4.6	orange red to orange yellow	100 g	M/5000/48	166
Methyl red spirit soluble C.I. 13020	4.2-6.3	red to yellow	10 g	M/5150/45	167
	4.2-6.3	red to yellow	25 g	M/5150/46	167
Methyl red solid water soluble	4.2-6.3	red to yellow	5 g	M/5170/44	167
	4.2-6.3	red to yellow	100 g	M/5170/48	167
Methyl violet solid (crystal violet) C.I. 42555	0.1-3.2	yellow to violet	10 g	M/5370/45	168
	0.1-3.2	yellow to violet	25 g	M/5370/46	168
p-Naphtholbenzein	8.5-9.8	yellow to green	25 g	N/0500/46	171
Neutral red C.I 50040	6.8-8.0	red to yellow-orange	5 g	N/1270/44	171
Thymol blue	1.2-2.8	red to yellow	5 g	T/1470/44	286
Thymolphthalein solid	9.3-10.5	colourless to blue	5 g	T/1480/44	287
	9.3-10.5	colourless to blue	25 g	T/1480/46	287
Titan yellow C.I. 19540	12.0-13.0	yellow to red	25 g	T/2060/46	290
Universal indicator, pH range 4-10	4.0-10.0	colour chart on bottle	2.5 L	U/0020/PB17	299
	4.0-10.0	colour chart on bottle	100 mL	U/0020/PB05	299
	4.0-10.0	colour chart on bottle	500 mL	U/0020/PB08	299

Redox Indicator

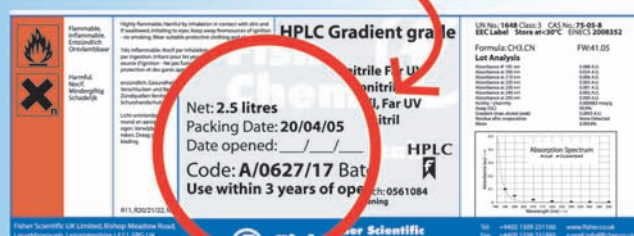
designation	transition	colour change (oxidised to reduced state)	packsize	package type	product code	page
Barium diphenylamine-4-sulfonate	+ 0.84	violet to colourless	5 g	Plastic jar	B/0620/44	36
Diphenylamine	+ 0.76	violet to colourless	100 g	Glass packaging	D/4600/48	93
Methylene blue solid C.I. 52015	+ 0.53	violet to colourless	10 g	Glass packaging	M/4870/45	165
	+ 0.87	violet to colourless	25 g	Glass packaging	M/4870/46	165
1.10-Phenanthroline monohydrate	+ 1.08	faint blue to red	1 g	Glass tube	P/2200/43	195
	+ 1.08	faint blue to red	5 g	Glass bottle	P/2200/44	195
Phenol-indo-2,6-dichlorophenol sodium salt	+ 0.67	red to colourless	1 g	Glass Jar	P/2390/43	196
	+ 0.67	red to colourless	5 g	Glass Jar	P/2390/44	196
Phenosafranin	+ 0.28	blue to colourless	5 g	Glass packaging	P/2450/44	196
N-Phenylanthranilic acid	+ 1.08	purple-red to colourless	5 g	Plastic jar	P/2460/44	197
Sodium diphenylamine-4-sulfonate	+ 0.84	red-violet to colourless	5 g	Glass Jar	S/3780/44	240

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Use best before information on the label



Adsorption Indicator

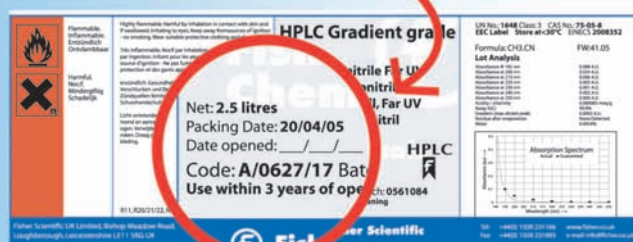
designation	colour index	packsize	package type	product code	page
Alizarin	C.I. 58000	10 g	Glass packaging	A/1460/45	11
Bromocresol purple		5 g	Glass packaging	B/4330/44	43
		25 g	Glass packaging	B/4330/46	43
Bromophenol blue		5 g	Glass packaging	B/4630/44	43
		25 g	Glass packaging	B/4630/46	43
Congo red	C.I. 22120	25 g	Glass packaging	C/7020/46	72
Dichloro (R) fluorescein		5 g	Glass packaging	D/1820/44	82
1,5-Diphenylcarbazone		10 g	Glass packaging	D/4850/45	93
Fluorescein sodium		100 g	Glass Jar	F/1300/48	104
		500 g	Glass Jar	F/1300/53	104
Mercury(II) thiocyanate		25 g	Plastic jar	M/3300/46	160
Phenosafranine	C.I. 50200	5 g	Glass packaging	P/2450/44	196
Tetrabromo (R) fluorescein	C.I. 45380	10 g	Glass Jar	T/0470/45	281

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Use best before information on the label



NIST Certified Standard from SPEX

A full range of Mono & Multi-elemental standard and Calibration solution for ICP & ICP-MS
Discover them on page 258



Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.
Choose between Optima®, Trace Metal® & Primar Plus® grade.
Read more page 9



Indigo carmine extra pure, C.I. 73015

SLR

SpeciFied	packaging	product code
	25 g Glass packaging	I/0300/46
$C_{16}H_8N_2Na_2O_8S_2$ CAS: 860-22-0 MW: 466.36 Boiling pressure: 760 mmHg HS-Nr: 32041200 EINECS: 212-728-8 Risk: R22 Xn		
Guaranteed analysis IR Analysis Conform Conforming to the IR spectrum of reference.		

5.5'-Indigodisulfonic acid, disodium salt

See Indigo carmine, page 129

Indium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLIN22Y
	500 mL Plastic bottle	SPPLIN22X
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45 Manufactured to a tolerance of $\pm 0.5\%$. All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities. See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.		

Indium standard metal solution 10 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPCLIN21AY
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45 Manufactured to a tolerance of $\pm 0.5\%$. All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities. See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.		

myo-Inositol pure

packaging	product code
100 g Plastic jar	I/0385/48
$C_6H_{12}O_6$ CAS: 87-89-8 MW: 180.16 Boiling pressure: 760 mmHg Melting point: 220 to 228°C HS-Nr: 38220000 EINECS: 201-781-2 Safety: S24/25	
Guaranteed analysis Melting Point tested 224 to 225°C	

Iodine for analysis

Certified AR

CertiFied	packaging	product code
	100 g Glass packaging	I/0500/48
	250 g Glass packaging	I/0500/50
	500 g Glass packaging	I/0500/53
I_2 CAS: 7553-56-2 MW: 126.9 ADR/RID: 8(6.1)/II UN: 2923 HS-Nr: 28012000 EINECS: 231-442-4 Risk: R20, R24, R34, R50 Safety: S23, S25, S26, S36/37/39, S45, S61		
Assay: >99.9%		

Guaranteed analysis

Insoluble matter	Conforming BP, USP	Magnesium (Mg)	<2 ppm
Calcium (Ca)	<5 ppm	Potassium (K)	<20 ppm
Chloride and Bromide	<0.005 %	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<10 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<5 ppm		

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Iodine extra pure

SLR

SpeciFied	packaging	product code
	100 g Glass packaging	I/0450/48
	250 g Glass packaging	I/0450/50
	500 g Glass packaging	I/0450/53
	5 kg Plastic screw top Keg	I/0450/65
	25 kg Plastic screw top Keg	I/0450/70
I_4 CAS: 7553-56-2 MW: 126.9 ADR/RID: 8(6.1)/II UN: 2923 HS-Nr: 28012000 EINECS: 231-442-4 Risk: R20, R24, R34, R50 Safety: S23, S25, S26, S36/37/39, S45, S61		

Assay: >99.5%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Magnesium (Mg)	<10 ppm
Chloride and Bromide	<0.02%	Potassium (K)	<100 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<50 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<10 ppm

Iodine indicator pure, indicator grade

packaging	product code
250 g Plastic jar	I/0505/50
I_2 ADR/RID: 8(6.1)/II UN: 2923 HS-Nr: 35051090 EINECS: 231-442-4	

Iodine indicator is a stable white powder which is readily soluble in water. It forms a blue complex with iodine: 0.2-0.5g being the usual amount per titration.
Sensitivity to iodine: 0.05 ml of 0.01N iodine gives a distinct blue colour in 100ml solution.
Glassware is easily cleaned after use.

Iodine solution - Wij's pure, indicator grade

packaging	product code
1 L Coated Glass Bottle	J/4500/PB15
2.5 L Coated Glass Bottle	J/4500/PB17
Flash point: 41.11°C ADR/RID: 3(8)/II UN: 2920 HS-Nr: 38220000 Risk: R34, R10 Safety: S2, S26, S45	

Guaranteed analysis

Iodine (I) 2.4 to 2.7%

Formulation free of carbon tetrachloride.

Iodine solution 1% w/v in potassium iodide pure

packaging	product code
1 L Glass bottle	J/4450/15
2.5 L Glass bottle	J/4450/17

HS-Nr: 38220000

Iodine solution 0.05M (0.1N)

Iodine solution 0.05M (0.1N) **NEW SPEC.** Eur.Ph., USP, BP NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/4410/15
2.5 L Glass bottle	J/4410/17

Density at 20°C: 1.02
HS-Nr: 38220000
Safety: S24/25

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Iodine solution 0.05M (0.1N) **NEW SPEC.** NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/4410C/05
6 ampoule	J/4410C/90

Density at 20°C: 1.02
HS-Nr: 38220000
Safety: S24/25

Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Iodine solution 0.5M (1N) **NEW SPEC.** Eur.Ph., BP NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
500 mL Coated Glass Bottle	J/4400/PB08
1 L Coated Glass Bottle	J/4400/PB15
2.5 L Coated Glass Bottle	J/4400/PB17

Density at 20°C: 1.45
HS-Nr: 38220000
Risk: R21, R34
Safety: S26, S36/37/39, S45

Manufactured to a tolerance of $\pm 0.2\%$.
See the full range of Standard Volumetric solution page 266.

Iodine bromide pure

packaging	product code
100 g Glass packaging	I/0510/48

BrI
CAS: 7789-33-5
MW: 206.81
Density at 20°C: 4.41
Boiling point: 116°C
Boiling pressure: 760 mmHg
Melting point: 42 to 50°C

ADR/RID: 8/II
UN: 3260
HS-Nr: 28129000
EINECS: 232-159-9
Risk: R34, R37
Safety: S26, S36/37/39, S45

Iodine trichloride extra pure

packaging	product code
100 g Coated Glass Bottle	I/0650/48

ICl₃
CAS: 865-44-1
MW: 233.26
ADR/RID: 8/II

UN: 1759
HS-Nr: 28121090
EINECS: 212-739-8

Assay: >96%

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1-Iodobutane extra pure

SLR

packaging	product code
25 mL Glass bottle	I/0697/04

C₄H₉I
CAS: 542-69-8
MW: 184.02
Density at 20°C: 1.61
Boiling point: 130 to 131°C
Melting point: -103°C

ADR/RID: 3/III
UN: 1993
HS-Nr: 29033090
EINECS: 208-824-4
Risk: R10, R21/22
Safety: S25

Assay (GC): >98%

Absorbance specification
Max. Absorbance (1cm cell v HPLC water)
Refractive index 1.49 to 1.51

Iodoethane extra pure

SLR

packaging	product code
100 mL Coated Glass Bottle	I/0700/PB05

C₂H₅I
CAS: 75-03-6
MW: 155.97
Density at 20°C: 1.92 to 1.93
Boiling point: 69 to 73°C
Boiling pressure: 760 mmHg
Melting point: -108°C

Flash point: 53°C
ADR/RID: 3/III
UN: 1993
HS-Nr: 29033090
EINECS: 200-833-1
Risk: R10, R20, R36/37/38
Safety: S16, S26, S37/39

Iodoform extra pure

SLR

packaging	product code
100 g Plastic jar	I/0750/48

CHI₃
CAS: 75-47-8
MW: 393.73
Melting point: 119 to 122°C
ADR/RID: 6.1/III

UN: 2811
HS-Nr: 29033090
EINECS: 200-874-5
Risk: R20/21/22, R36/37/38
Safety: S22, S26, S36/37/39

Guaranteed analysis

Melting Point tested >118°C

Iodomethane extra pure

SLR

packaging	product code
100 mL Coated Glass Bottle	I/0800/PB05

CH₃I
CAS: 74-88-4
MW: 141.94
Density at 20°C: 2.26 to 2.29
Boiling point: 42.5°C
Boiling pressure: 760 mmHg
Melting point: -66°C

ADR/RID: 6.1/II
UN: 2644
HS-Nr: 29033090
EINECS: 200-819-5
Risk: R21, R23/25, R37/38, R40
Safety: S36/37, S38, S45

Assay (GC): >98%

2-Iodopropane extra pure

SLR

packaging	product code
100 mL Coated Glass Bottle	I/0831/PB05

C₃H₇I
CAS: 75-30-9
MW: 169.99
Density at 20°C: 1.7
Boiling point: 90°C
Boiling pressure: 760 mmHg
Melting point: -90°C

Flash point: 21°C
ADR/RID: 3/III
UN: 2392
HS-Nr: 29033090
EINECS: 200-859-3
Risk: R10, R36/37/38
Safety: S16, S26, S37/39

Assay (GC): >98%

Ionol See 2.6-Di-tert-butyl-p-cresol, page 81



Iridium standard metal solution 1000 ppm for ICP solution in HCL 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLIR32Y
500 mL Plastic bottle	SPPLIR32X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8030/05
500 mL Plastic bottle	J/8030/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 28342980
Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8271/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8270/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 28342980
Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLFE22Y
250 mL Plastic bottle	SPPLFE22T
500 mL Plastic bottle	SPPLFE22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLFE12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLFE23Y
500 mL Plastic bottle	SPPLFE23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLFE13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLFE22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Iron powder extra pure, metal reduced by hydrogen

SLR



packaging	product code
500 g Plastic jar	I/0950/53

Fe
CAS: 7439-89-6
MW: 55.85
Density at 20°C: 7.86
Boiling point: 3000°C
Boiling pressure: 760 mmHg

Melting point: 1535°C
HS-Nr: 72052900
EINECS: 231-096-4
Risk: R11
Safety: S16

Iron filings (coarse)

Iron filings (coarse) pure

packaging	product code
1 kg Plastic jar	I/0855/60
25 kg Plastic screw top Keg	I/0855/70

Fe
CAS: 7439-89-6
MW: 55.84
Density at 20°C: 7.86
Boiling point: 3000°C
Boiling pressure: 760 mmHg

Melting point: 1535°C
HS-Nr: 38220000
EINECS: 231-096-4
Risk: R11
Safety: S16

Iron filings (fine) metal pure

packaging	product code
250 g Plastic jar	I/0850/50
1 kg Plastic jar	I/0850/60
3 kg Plastic jar	I/0850/63

Fe
CAS: 7439-89-6
MW: 55.84
Density at 20°C: 7.86
Boiling point: 3000°C
Boiling pressure: 760 mmHg

Melting point: 1535°C
HS-Nr: 38220000
EINECS: 231-096-4
Risk: R11
Safety: S16

Iron(III) chloride anhydrous extra pure

SLR



packaging	product code
250 g Plastic jar	I/1035/50
500 g Plastic jar	I/1035/53
3 kg Plastic jar	I/1035/63

FeCl₃
CAS: 7705-08-0
MW: 162.21
Boiling point: 316°C
Boiling pressure: 760 mmHg
Melting point: 300 °C

ADR/RID: 8/III
UN: 1773
HS-Nr: 28273920
EINECS: 231-729-4
Risk: R22, R34
Safety: S26, S36/37/39, S45

Assay: >97%

Guaranteed analysis

Iron (II) <1%

Iron(III) chloride pure, solution about 60% w/v, FeCl₃

packaging	product code
2.5 L Plastic bottle	I/1045/PB17

FeCl₃
CAS: 7705-08-0
Density at 20°C: 1.4 to 1.5
ADR/RID: 8/III

UN: 2582
HS-Nr: 28273920
Risk: R22, R34
Safety: S25, S36/37/39, S45

Iron(III) chloride solution about 60% w/v extra pure

SLR

packaging	product code
500 mL Coated Glass Bottle	I/1047/PB08

FeCl₃
CAS: 10025-77-1
ADR/RID: 8(8)/III
UN: 2582

HS-Nr: 28273920
Risk: R22, R34
Safety: S25/26/28, S36/37/39, S45

Guaranteed analysis

Calcium (Ca) <500 ppm	Sodium (Na) <1000 ppm
Copper (Cu) <100 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <0.1 ppm	Total silicon (Si) <200 ppm
Lead (Pb) <100 ppm	Total sulphur (S) <500 ppm
Magnesium (Mg) <200 ppm	Zinc (Zn) <500 ppm
Potassium (K) <200 ppm	

Iron(III) citrate trihydrate pure

packaging	product code
500 g Plastic jar	I/1060/53

C₆H₅FeO₇·3H₂O
CAS: 3522-50-7
MW: 299

HS-Nr: 38220000
EINECS: 222-536-6

Iron(II) disulfide extra pure, powder

SLR



packaging	product code
1 kg Glass packaging	I/1165/60

FeS₂
CAS: 12068-85-8
HS-Nr: 38220000

EINECS: 235-106-8
Risk: R32



Iron(III) nitrate nonahydrate for analysis

Certified AR



packaging	product code
250 g Plastic jar	I/1075/50
500 g Plastic jar	I/1075/53
1 kg Plastic jar	I/1075/60

Fe(NO₃)₃·9H₂O
CAS: 7782-61-8
MW: 404
ADR/RID: 5.1/III

UN: 1466
HS-Nr: 28342980
Risk: R8, R36/37/38
Safety: S17, S24/25



Assay: 98 to 102%

Guaranteed analysis

Acidity <0.1 meq/g	Sodium (Na) <100 ppm
Calcium (Ca) <50 ppm	Total chloride (Cl) <0.0005 %
Copper (Cu) <50 ppm	Total phosphorus (P) <50 ppm
Lead (Pb) <20 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <10 ppm	Total sulphur (S) <50 ppm
Potassium (K) <100 ppm	Zinc (Zn) <20 ppm

Typical analysis

Arsenic (As) <5 ppm	Manganese (Mn) <0.02 %
Barium (Ba) <5 ppm	Molybdenum (Mo) <0.001 %
Cadmium (Cd) <0.005 %	Silver (Ag) <5 ppm
Chromium (Cr) <0.005 %	Strontium (Sr) <5 ppm
Cobalt (Co) <0.001 %	Titanium (Ti) <5 ppm
Lithium (Li) <5 ppm	Vanadium (V) <5 ppm

Lot analysis on the label.

Iron(III) nitrate nonahydrate extra pure

SLR



packaging	product code
250 g Plastic jar	I/1070/50
500 g Plastic jar	I/1070/53
1 kg Plastic jar	I/1070/60

Fe(NO₃)₃·9H₂O
CAS: 7782-61-8
MW: 404
ADR/RID: 5.1/III

UN: 1466
HS-Nr: 28342980
Risk: R8, R36/37/38
Safety: S17, S24/25



Assay: >98%

Guaranteed analysis

Calcium (Ca) <500 ppm	Total chloride (Cl) <0.01%
Copper (Cu) <100 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <100 ppm	Total silicon (Si) <200 ppm
Magnesium (Mg) <200 ppm	Total sulphur (S) <500 ppm
Potassium (K) <200 ppm	Zinc (Zn) <500 ppm
Sodium (Na) <1000 ppm	

Iron oxide pure, magnetic precipitated

packaging	product code
500 g Glass Jar	I/1100/53

CAS: 1317-61-9
HS-Nr: 28211000
EINECS: 215-277-5

Iron oxide pure, precipitated

packaging	product code
500 g Plastic jar	I/1150/53

Fe₂O₃
CAS: 1309-37-1
MW: 159.69
Density at 20°C: 5.24
Melting point: 1538 °C
HS-Nr: 28211000
EINECS: 215-168-2
Safety: S24/25

Iron(III) oxide calcined pure

packaging	product code
1 kg Glass packaging	I/1013/60
25 kg Fibre Keg	I/1013/70

Fe₂O₃
CAS: 1309-37-1
MW: 159.69
Density at 20°C: 5.24
Melting point: 1538 °C
HS-Nr: 38220000
EINECS: 215-168-2
Safety: S24/25

Assay: >95%

Iron(II) sulfate heptahydrate for analysis

Certified AR



packaging	product code
250 g Plastic jar	I/1157/50
500 g Plastic jar	I/1157/53
1 kg Plastic jar	I/1157/60

FeSO₄·7H₂O
CAS: 7720-78-7
MW: 278.02
HS-Nr: 38220000
EINECS: 231-753-5
Risk: R8, R36/38

Assay: 98 to 102%

Guaranteed analysis

pH (aqueous solution 5%)	3 to 4	Sodium (Na)	<100 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<10 ppm	Total nitrogen (N)	<20 ppm
Iron (III)	<0.05 %	Total phosphorus (P)	<10 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<50 ppm		

Typical analysis

Arsenic (As)	<5 ppm	Manganese (Mn)	<0.05 %
Barium (Ba)	<5 ppm	Molybdenum (Mo)	<5 ppm
Cadmium (Cd)	<0.01 %	Silver (Ag)	<5 ppm
Chromium (Cr)	<0.01 %	Strontium (Sr)	<5 ppm
Cobalt (Co)	<0.001 %	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm

Lot analysis on the label.

Iron(II) sulfate heptahydrate extra pure

SLR



packaging	product code
1 kg Plastic jar	I/1155/60
2.5 kg Plastic jar	I/1155/62
5 kg Plastic jar	I/1155/65

FeSO₄·7H₂O
CAS: 7720-78-7
MW: 278.02
HS-Nr: 28332950
EINECS: 231-753-5
Risk: R8, R36/38

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.01 %
Lead (Pb)	<50 ppm	Total phosphorus (P)	<50 ppm
Magnesium (Mg)	<200 ppm	Total silicon (Si)	<100 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<500 ppm

Iron(II) sulfate heptahydrate Technical

packaging	product code
2 kg Plastic jar	I/1154/61

FeSO₄·7H₂O
CAS: 7720-78-7
MW: 278.02
HS-Nr: 28332950
EINECS: 231-753-5
Risk: R8, R36/38

Iron(II) sulfate dried extra pure

SLR



packaging	product code
1 kg Plastic jar	I/1159/60

FeSO₄
CAS: 7720-78-7
HS-Nr: 28332950
EINECS: 231-753-5
Risk: R8, R36/38

Assay: 77 to 90%

Guaranteed analysis

Copper (Cu)	<500 ppm	Lead (Pb)	<50 ppm
Content 77 90 % in FeSO 4			

Iron(III) sulfate monohydrate Technical

packaging	product code
500 g Plastic jar	I/1160/53
1 kg Plastic jar	I/1160/60

Fe₂(SO₄)₃·H₂O
CAS: 10028-22-5
HS-Nr: 28332950
EINECS: 233-072-9

Iron(II) sulfide Technical

packaging	product code
1 kg Plastic jar	I/1170/60
3 kg Plastic jar	I/1170/63

FeS
CAS: 1317-37-9
MW: 87.92
Density at 20°C: 4.84
Melting point: 1195°C
HS-Nr: 38220000
EINECS: 215-268-6
Safety: S24/25

NIST Certified Standard from SPEX

A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS
Discover them on page 258



Isohexane (contains <5% n-Hexane)

Isohexane (contains <5% n-Hexane) for HPLC

Certified



packaging	product code
1 L Coated Glass Bottle	H/0405/PB15
2.5 L Coated Glass Bottle	H/0405/PB17
5 L Aluminium drum	H/0405/21
25 L Metal drum	H/0405/25
25 L Stainless steel drum	H/0405/25SS
200 L Stainless steel drum	H/0405/27SS

C₆H₁₄
CAS: 73513-42-5
MW: 86.18
Density at 20°C: 0.66
Boiling point: 60°C
Boiling pressure: 760 mmHg
Melting point: -154°C
Flash point: -23°C



Guaranteed analysis

Acidity / Alkalinity <0.00015 meq/g Water <0.01%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.3 A.U.	240 nm <0.02 A.U.
210 nm <0.15 A.U.	250 nm <0.01 A.U.
220 nm <0.07 A.U.	260 nm <0.005 A.U.
230 nm <0.03 A.U.	

Lot analysis on the label including an absorbance curve.
Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Isohexane (contains <5% n-Hexane) HPLC for fluorescence detection

Certified



packaging	product code
1 L Coated Glass Bottle	H/0410/PB15
2.5 L Coated Glass Bottle	H/0410/PB17

C₆H₁₄
CAS: 73513-42-5
MW: 86.18
Density at 20°C: 0.66
Boiling point: 60°C
Boiling pressure: 760 mmHg
Melting point: -154°C
Flash point: -23°C



Guaranteed analysis

Acidity / Alkalinity <0.00015 meq/g Water <0.01%
Residue after evaporation <2 ppm N-Hexane <5%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.3 A.U.	240 nm <0.02 A.U.
210 nm <0.15 A.U.	250 nm <0.01 A.U.
220 nm <0.07 A.U.	260 nm <0.005 A.U.
230 nm <0.03 A.U.	Fluorescence Conform

Excitation in the range 250-750nm produces no fluorescence emission greater than the solvents natural Raman signal at 350nm excitation. This is equivalent to the emission maximum of approximately 1ppb quinine sulfate.

Lot analysis on the label (excluding fluorescence scan).

Filtered to 0.2 µm.

Isohexane (contains <5% n-Hexane) for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	H/0408/15
2.5 L Glass bottle	H/0408/17

C₆H₁₄
CAS: 73513-42-5
MW: 86.18
Density at 20°C: 0.66
Boiling point: 60°C
Boiling pressure: 760 mmHg
Melting point: -154°C
Flash point: -23°C



Guaranteed analysis

GC (ECD) Analysis Conform Residue after evaporation <2 ppm
GC (FID) Analysis Conform Water <0.01%
GC (NPD) analysis Conform

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile: (1) 50°C, 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Isohexane for analysis, contains <5% n-Hexane

Certified AR



packaging	product code
1 L Coated Glass Bottle	H/0411/PB15
2.5 L Coated Glass Bottle	H/0411/PB17
5 L Metal can	H/0411/21
25 L Metal drum	H/0411/25
25 L Metal drum	H/0411/DH25

C₆H₁₄
CAS: 73513-42-5
MW: 86.18
Density at 20°C: 0.66
Boiling point: 60°C
Boiling pressure: 760 mmHg
Melting point: -154°C
Flash point: -23°C



Guaranteed analysis

Acidity / Alkalinity <0.00008 meq/g Lead (Pb) <0.02 ppm
Colour <10 APHA Magnesium (Mg) <0.05 ppm
Number of bromine <0.5 Potassium (K) <0.1 ppm
Residue after evaporation <20 ppm Sodium (Na) <0.1 ppm
Substances darkened by (H₂SO₄) Conform Total phosphorus (P) <0.1 ppm
Water <0.02% Total silicon (Si) <0.05 ppm
Calcium (Ca) <0.2 ppm Total sulphur (S) <10 ppm
Copper (Cu) <0.02 ppm Zinc (Zn) <0.1 ppm
Iron (Fe) <0.1 ppm Aromatic Hydrocarbons <0.01 %
N-Hexane <5 %

Typical analysis

Aluminium (Al) <0.1 ppm Manganese (Mn) <0.02 ppm
Barium (Ba) <0.02 ppm Molybdenum (Mo) <0.02 ppm
Cadmium (Cd) <0.02 ppm Nickel (Ni) <0.02 ppm
Chromium (Cr) <0.02 ppm Strontium (Sr) <0.02 ppm
Cobalt (Co) <0.02 ppm Titanium (Ti) <0.02 ppm
Lithium (Li) <0.02 ppm Vanadium (V) <0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Isohexane (contains <5% n-Hexane) extra pure

SLR



packaging	product code
1 L Glass bottle	H/0401/15
2.5 L Coated Glass Bottle	H/0401/PB17
5 L Metal can	H/0401/21
25 L Metal drum	H/0401/25
200 L Metal drum	H/0401/27

C₆H₁₄
CAS: 73513-42-5
MW: 86.18
Density at 20°C: 0.66
Boiling point: 60°C
Boiling pressure: 760 mmHg
Melting point: -154°C
Flash point: -23°C



Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Magnesium (Mg)	<1 ppm
Colour	<20 APHA	Potassium (K)	<1 ppm
Number of bromine	<0.5	Sodium (Na)	<2 ppm
Residue after evaporation	<50 ppm	Total phosphorus (P)	<1 ppm
Water	<0.05%	Total silicon (Si)	<1 ppm
Calcium (Ca)	<2 ppm	Total sulphur (S)	<50 ppm
Copper (Cu)	<1 ppm	Zinc (Zn)	<2 ppm
Iron (Fe)	<5 ppm	N-Hexane	<5%
Lead (Pb)	<1 ppm		

see page 279 for suitable Tap & accessories.

Isooctane See 2,2,4-Trimethylpentane, page 296 →

Isopentyl alcohol See iso-Amyl alcohol, page 30 →

Isopropanol HPLC for gradient analysis

Certified

HPLC	packaging	product code
	2.5 L Glass bottle	P/7508/17

(CH ₃) ₂ CHOH	Flash point: 12°C	
CAS: 67-63-0	ADR/RID: 3/II	
MW: 60.1	UN: 1219	
Density at 20°C: 0.79	HS-Nr: 29051200	
Boiling point: 81 to 83°C	EINECS: 200-661-7	
Boiling pressure: 760 mmHg	Risk: R11, R36, R67	
Melting point: -89.5°C	Safety: S7, S16, S24/25, S26	

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Water	<0.1%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

220 nm	<0.2 A.U.	Gradient (max eluted peak)	<0.002 A.U.
230 nm	<0.1 A.U.	260 nm	<0.005 A.U.
240 nm	<0.05 A.U.	270 nm	<0.005 A.U.
250 nm	<0.01 A.U.		

HPLC analysis:

Absorbance of the largest peak <0.002A.U.

Column: C18 Reverse Phase

Flow rate: 0.5 mL / min

Wavelength 254 nm

Solvent A: Water

Solvent B: Propan -2-ol

Gradient: Linear from 95% A/ 5% B to 100% B over 20mins.

Lot analysis on the label including absorbance curve.

Filtered to 0.2 µm.

Isopropanol for HPLC

Certified

HPLC	packaging	product code
	1 L Glass bottle	P/7507/15
	2.5 L Glass bottle	P/7507/17
	2.5 L Coated Glass Bottle	P/7507/PB17
	200 L Stainless steel drum	P/7507/2755

(CH ₃) ₂ CHOH	Flash point: 12°C	
CAS: 67-63-0	ADR/RID: 3/II	
MW: 60.1	UN: 1219	
Density at 20°C: 0.79	HS-Nr: 29051200	
Boiling point: 81 to 83°C	EINECS: 200-661-7	
Boiling pressure: 760 mmHg	Risk: R11, R36, R67	
Melting point: -89.5°C	Safety: S7, S16, S24/25, S26	

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Water	<0.1%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

220 nm	<0.2 A.U.	250 nm	<0.01 A.U.
230 nm	<0.1 A.U.	260 nm	<0.005 A.U.
240 nm	<0.05 A.U.	270 nm	<0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Isopropanol HPLC for electrochemical detection

Certified

HPLC	packaging	product code
	2.5 L Glass bottle	P/7509/17

(CH ₃) ₂ CHOH	Flash point: 12°C
CAS: 67-63-0	ADR/RID: 3/II
MW: 60.1	UN: 1219
Density at 20°C: 0.79	HS-Nr: 29051200
Boiling point: 81 to 83°C	EINECS: 200-661-7
Boiling pressure: 760 mmHg	Risk: R11, R36, R67
Melting point: -89.5°C	Safety: S7, S16, S24/25, S26

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Residue after evaporation	<2 ppm
Electrochemical test	Conform	Water	<0.05%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

220 nm	<0.2 A.U.	250 nm	<0.01 A.U.
230 nm	<0.1 A.U.	260 nm	<0.005 A.U.
240 nm	<0.05 A.U.	270 nm	<0.005 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Isopropanol for residue and pesticide analysis

Distol

Distol	packaging	product code
	1 L Glass bottle	P/7501/15
	2.5 L Glass bottle	P/7501/17

(CH ₃) ₂ CHOH	Flash point: 12°C
CAS: 67-63-0	ADR/RID: 3/II
MW: 60.1	UN: 1219
Density at 20°C: 0.79	HS-Nr: 29051200
Boiling point: 81 to 83°C	EINECS: 200-661-7
Boiling pressure: 760 mmHg	Risk: R11, R36, R67
Melting point: -89.5°C	Safety: S7, S16, S24/25, S26

Assay (GC): >99.8%

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.1%
GC (NPD) analysis	Conform		

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile:

(1) 50°C for 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Isopropanol

extra dry, for synthesis



packaging	product code
1 L Glass bottle	P/7503/15
2.5 L Glass bottle	P/7503/17

(CH₃)₂CHOH
CAS: 67-63-0
MW: 60.1
Density at 20°C: 0.79
Boiling point: 81 to 83°C
Boiling pressure: 760 mmHg
Melting point: -89.5°C

Flash point: 12°C
ADR/RID: 3/II
UN: 1219
HS-Nr: 29051200
EINECS: 200-661-7
Risk: R11, R36, R67
Safety: S7, S16, S24/25, S26



Assay (GC): >99.8%

Guaranteed analysis

Residue after evaporation <2 ppm Water <0.01%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Magnesium (Mg)	<0.1 ppm
Colour	<5 APHA	Potassium (K)	<0.2 ppm
Residue after evaporation	<10 ppm	Sodium (Na)	<1 ppm
Substances darkened		Total phosphorus (P)	<0.1 ppm
by (H ₂ SO ₄)	<10 APHA	Total silicon (Si)	<0.05 ppm
Substances		Total sulphur (S)	<0.5 ppm
reducing KMnO ₄	<0.0005%	Zinc (Zn)	<0.1 ppm
Water	<0.1%	Alcohols C 4	<0.005 %
Calcium (Ca)	<0.2 ppm	Alcohols C 5	<0.005 %
Copper (Cu)	<0.02 ppm	Ethanol	<0.005 %
Iron (Fe)	<0.1 ppm	Methanol	<0.005 %
Lead (Pb)	<0.02 ppm	Propan -1-ol	<0.05 %

Typical analysis

Aluminium (Al)	<0.02 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Isopropanol

for electronic use (MOS)

packaging	product code
2.5 L Glass bottle	P/7555/17
5 L Plastic drum	P/7555/21

(CH₃)₂CHOH
CAS: 67-63-0
MW: 60.1
Density at 20°C: 0.79
Boiling point: 81 to 83°C
Boiling pressure: 760 mmHg
Melting point: -89.5°C

Flash point: 12°C
ADR/RID: 3/II
UN: 1219
HS-Nr: 29051200
EINECS: 200-661-7
Risk: R11, R36, R67
Safety: S7, S16, S24/25, S26



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Manganese (Mn)	<0.02 ppm
Colour	<5 APHA	Molybdenum (Mo)	<0.02 ppm
Residue after evaporation	<10 ppm	Nickel (Ni)	<0.02 ppm
Substances darkened		Potassium (K)	<0.2 ppm
by (H ₂ SO ₄)	<10 APHA	Sodium (Na)	<1 ppm
Water	<0.1%	Strontium (Sr)	<0.02 ppm
Aluminium (Al)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Total phosphorus (P)	<0.1 ppm
Cadmium (Cd)	<0.02 ppm	Total silicon (Si)	<0.05 ppm
Calcium (Ca)	<0.2 ppm	Total sulphur (S)	<0.5 ppm
Chromium (Cr)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Zinc (Zn)	<0.1 ppm
Copper (Cu)	<0.02 ppm	Alcohols C 4	<0.005%
Iron (Fe)	<0.1 ppm	Alcohols C 5	<0.005%
Lead (Pb)	<0.02 ppm	Ethanol	<0.005%
Lithium (Li)	<0.02 ppm	Methanol	<0.005%
Magnesium (Mg)	<0.1 ppm	Propan -1-ol	<0.05%

Isopropanol (Propan-2-ol)

extra pure

SLR



packaging	product code
1 L Glass bottle	P/7490/15
2.5 L Glass bottle	P/7490/17
2.5 L Coated Glass Bottle	P/7490/PB17
5 L Metal can	P/7490/21
25 L Metal drum	P/7490/25
25 L Plastic drum	P/7490/PC25
25 L Metal drum	P/7490/DH25
200 L Metal drum	P/7490/27

(CH₃)₂CHOH
CAS: 67-63-0
MW: 60.1
Density at 20°C: 0.79
Boiling point: 81 to 83°C
Boiling pressure: 760 mmHg
Melting point: -89.5°C

Flash point: 12°C
ADR/RID: 3/II
UN: 1219
HS-Nr: 29051200
EINECS: 200-661-7
Risk: R11, R36, R67
Safety: S7, S16, S24/25, S26



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Iron (Fe)	<5 ppm
Colour	<10 APHA	Lead (Pb)	<2 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<2 ppm
Substances darkened		Potassium (K)	<2 ppm
by (H ₂ SO ₄)	<10 APHA	Sodium (Na)	<5 ppm
Substances		Total phosphorus (P)	<2 ppm
reducing KMnO ₄	<0.0005%	Total silicon (Si)	<2 ppm
Water	<0.2%	Total sulphur (S)	<2 ppm
Calcium (Ca)	<5 ppm	Zinc (Zn)	<2 ppm
Copper (Cu)	<2 ppm		

see page 279 for suitable Tap & accessories.

Isopropanol (Propan-2-ol)

for analysis

Certified AR



packaging	product code
1 L Glass bottle	P/7500/15
2.5 L Glass bottle	P/7500/17
2.5 L Coated Glass Bottle	P/7500/PB17
2.5 L Plastic bottle	P/7500/PC17
5 L Metal can	P/7500/21
10 L Plastic drum	P/7500/24
25 L Metal drum	P/7500/25
25 L Metal drum	P/7500/DH25
200 L Metal drum	P/7500/27

(CH₃)₂CHOH
CAS: 67-63-0
MW: 60.1
Density at 20°C: 0.79
Boiling point: 81 to 83°C
Boiling pressure: 760 mmHg
Melting point: -89.5°C

Flash point: 12°C
ADR/RID: 3/II
UN: 1219
HS-Nr: 29051200
EINECS: 200-661-7
Risk: R11, R36, R67
Safety: S7, S16, S24/25, S26



Assay (GC): >99.8%

Isopropylacetone See 4-Methylpentan-2-one, page 166



Isopropyl alcohol See Isopropanol, page 136



Isopropyl iodide See 2-Iodopropane, page 130



Kaolin light

pure, washed with acid

packaging	product code
1 kg Plastic jar	K/0050/60
3 kg Plastic drum	K/0050/63
25 kg Fibre Keg	K/0050/70

CAS: 1332-58-7
Melting point: 1750°C
HS-Nr: 38220000
Safety: S24/25

Karl Fischer reagents for Volumetric Analysis



For high water content.

Available as 1 or 2 component system, pyridine free.

See alphabetical entry in the main body of this catalogue for full details.

designation	packsize	package type	product code	page
Karl Fischer Aqualine® Complete 1	1 L	Glass bottle	K/1900/15	138
Karl Fischer Aqualine® Complete 2	1 L	Glass bottle	K/1950/15	138
Karl Fischer Aqualine® Complete 3	2.5 L	Glass bottle	K/1950/17	138
Karl Fischer Aqualine® Complete 5	1 L	Glass bottle	K/2000/15	138
Karl Fischer Aqualine® Complete 6	2.5 L	Glass bottle	K/2000/17	138
Karl Fischer Aqualine® Complete 5K	1 L	Glass bottle	K/2250R/15	138
Karl Fischer Aqualine® Matrix K	1 L	Glass bottle	K/2300R/15	138
Karl Fischer Aqualine® Solvent	1 L	Glass bottle	K/2100/15	138
	2.5 L	Glass bottle	K/2100/17	138
Karl Fischer Aqualine® solvent CM	1 L	Glass bottle	K/2110/15	138
	2.5 L	Glass bottle	K/2110/17	138
Karl Fischer Aqualine® Titrant 2	1 L	Glass bottle	K/2150/15	138
Karl Fischer Aqualine® Titrant 3	2.5 L	Glass bottle	K/2150/17	138
Karl Fischer Aqualine® Titrant 5	1 L	Glass bottle	K/2200/15	138
Karl Fischer Aqualine® Titrant 6	2.5 L	Glass bottle	K/2200/17	138

Karl Fischer reagents for Coulometric Analysis



For low water content at ppm level.

Anolytes & Catholyte solutions.

See alphabetical entry in the main body of this catalogue for full details.

designation	packsize	package type	product code	page
Karl Fischer Aqualine® Electrolyte A	500 mL	Glass bottle	K/2500/08	138
Karl Fischer Aqualine® Electrolyte AD	500 mL	Glass bottle	K/2510/08	139
Karl Fischer Aqualine® Electrolyte AD-G	500 mL	Glass bottle	K/2515/08	139
Karl Fischer Aqualine® Electrolyte AG	500 mL	Glass bottle	K/2520/08	139
Karl Fischer Aqualine® Electrolyte AG-H	500 mL	Glass bottle	K/2530/08	139
Karl Fischer Aqualine® Electrolyte CG	25 mL	Glass bottle	K/2560/04	139

Standards for Volumetric & Coulometric application



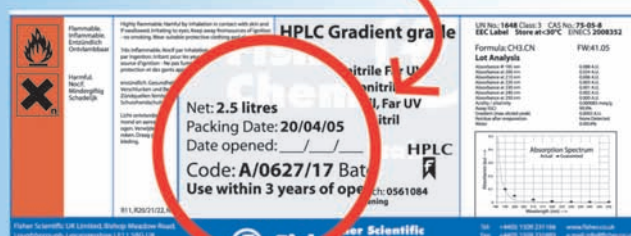
designation	packsize	package type	product code	page
Karl Fischer Aqualine® sodium tartrate standard	100 g	Plastic Jar	K/2770/48	139
Karl Fischer Aqualine® tri-Potassium citrate standard	10 g	Glass bottle	K/2760/45	139
Karl Fischer Aqualine® Water solution in methanol(1ml=5.0mg/H ₂ O)	1 L	Glass bottle	J/9000/15	139
	500 mL	Coated Glass Bottle	J/9000/PB08	139
Karl Fischer Aqualine® Water standard 0.2 mg/g	40 mL	ampoule	K/2740/99	139
Karl Fischer Aqualine® Water standard 1 mg/g	40 mL	ampoule	K/2710/99	139
Karl Fischer Aqualine® Water standard 5 mg/ml	500 mL	Glass bottle	K/2730/08	140
Karl Fischer Aqualine® Water standard 10 mg/g	80 mL	ampoule	K/2720/99	140

Fisher Chemical products takes care of the environment!

Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Use best before information on the label



Karl Fischer Aqualine® Complete 1

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/1900/15

ADR/RID: 8/III
UN: 1760
HS-Nr: 38220000

Single component (composite) reagent with a water equivalence of 1mg Water/ml (pyridine free)

Karl Fischer Aqualine® Complete 2

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/1950/15
2.5 L Glass bottle	K/1950/17

ADR/RID: 8/III
UN: 1760
HS-Nr: 38220000

Single component (composite) reagent with a water equivalence of 2mg Water/ml (pyridine free)

Karl Fischer Aqualine® Complete 5

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2000/15
2.5 L Glass bottle	K/2000/17

ADR/RID: 8/III
UN: 1760
HS-Nr: 38220000

Single component (composite) reagent with a water equivalence of 5mg Water/ml (pyridine free)

Karl Fischer Aqualine® Complete 5K

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2250R/15

ADR/RID: 8/III Risk: R20/21/22, R34, R50
UN: 1760 Safety: S23, S26,
HS-Nr: 29094400 S36/37/39, S45, S61

Guaranteed analysis

pH (aqueous solution 10%) 2.6 to 6

Single component (composite) reagent for water determination in aldehydes and ketones with a water equivalence of 5mg Water/ml (pyridine free).
Must be used in conjunction with Aqualine® Matrix K.

Karl Fischer Aqualine® Matrix K

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2300R/15

ADR/RID: 3(6.1)/III Risk: R10, R20/21/22, R36/38,
UN: 1992 R40, R48/20/22
HS-Nr: 29031300 Safety: S36/37, S46

Guaranteed analysis

Water <0.05%

A mixture of solvents used as working medium for the determination of water in aldehydes and ketones.
Must be used in conjunction with Aqualine® Complete 5K.

Karl Fischer Aqualine® Solvent

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2100/15
2.5 L Glass bottle	K/2100/17

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Aqualine® Solvent acts as the working medium with the two-component reagent (pyridine free). Water capacity of at least 8mg water/ml.

Karl Fischer Aqualine® Solvent CM

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2110/15
2.5 L Glass bottle	K/2110/17

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Guaranteed analysis

Water <0.05%

Aqualine® Solvent CM acts as the working medium with the two-component reagent (pyridine free) for samples with high hydrocarbon content.

Karl Fischer Aqualine® Titrant 2

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2150/15
2.5 L Glass bottle	K/2150/17

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 38220000

Aqualine® two component reagent with a water equivalence of 2mg Water/ml (pyridine free).
Aqualine® Titrant 2 is used as the titration reagent in conjunction with Aqualine® Solvent.

Karl Fischer Aqualine® Titrant 5

For Karl Fischer titration by Volumetry



packaging	product code
1 L Glass bottle	K/2200/15
2.5 L Glass bottle	K/2200/17

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 38220000

Aqualine® two component reagent with a water equivalence of 5mg Water/ml (pyridine free).
Aqualine® Titrant 5 is used as the titration reagent in conjunction with Aqualine® Solvent.

Karl Fischer Aqualine® Electrolyte A

For Karl Fischer titration by Coulometry



packaging	product code
500 mL Glass bottle	K/2500/08

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Guaranteed analysis

Water <0.005%

Anolyte solution for general use in conventional cells with a diaphragm.

Karl Fischer Aqualine® Electrolyte AD

For Karl Fischer titration by Coulometry

Aqualine	packaging	product code
	500 mL Glass bottle	K/2510/08

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Guaranteed analysis

Water <0.005%

Anolyte for cells without diaphragm (fritless).

Karl Fischer Aqualine® Sodium tartrate-2-H₂O

For Karl Fischer titration

Aqualine	packaging	product code
	100 g Plastic Jar	K/2770/48

(CH(OH).COONa)₂,
2H₂O
HS-Nr: 38220000
EINECS: 212-773-2

Primary standard for volumetric analysis.
water content 15.66±0.05%.

Karl Fischer Aqualine® Electrolyte AD-G

For Karl Fischer titration by Coulometry

Aqualine	packaging	product code
	500 mL Glass bottle	K/2515/08

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Guaranteed analysis

Water <0.005%

Halogen-free anolyte solution for use in cells without diaphragm (fritless).

Karl Fischer Aqualine® tri-Potassium citrate standard

For Karl Fischer titration

Aqualine	packaging	product code
	10 g Glass bottle	K/2760/45

K₃C₆H₅O₇
HS-Nr: 38220000
EINECS: 212-755-5

Guaranteed analysis

Loss on drying 200°C 5.5 to 5.61%

Potassium citrate monohydrate for use in KF oven techniques. Actual water content by weight (as loss on drying) is specified on the label.

Karl Fischer Aqualine® Electrolyte AG

For Karl Fischer titration by Coulometry

Aqualine	packaging	product code
	500 mL Glass bottle	K/2520/08

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Guaranteed analysis

Water <0.005%

Halogen-free anolyte solution for general use in conventional cells with diaphragm.

Karl Fischer Aqualine® Water solution

For Karl Fischer titration

Aqualine	packaging	product code
	500 mL Coated Glass Bottle 1 L Glass bottle	J/9000/PB08 J/9000/15

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



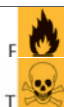
1 mL is equivalent to 5.00 + /-0.05 mg water.

Karl Fischer Aqualine® Electrolyte AG-H

For Karl Fischer titration by Coulometry

Aqualine	packaging	product code
	500 mL Glass bottle	K/2530/08

Flash point: 12°C
ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 29051100
Risk: R11, R23/24/25, R34,
R39/23/24/25
Safety: S7, S9, S16, S26,
S36/37/39, S45



Halogen-free anolyte solution for general use in conventional cells with a diaphragm.

Karl Fischer Aqualine® Water standard 0.2 mg

For Karl Fischer titration

Aqualine	packaging	product code
	40 mL ampoule	K/2740/99

ADR/RID: 3/II
UN: 2222
HS-Nr: 38220000

Standard for Karl Fischer titration.
1 mL is equivalent to 0.200 + /-0.005 mg water.
Each pack contains 10 x 4mL ampoules and is supplied with a certificate of analysis.
Each ampoule has a shelf life of at least 5 years unopened.

Karl Fischer Aqualine® Electrolyte CG

For Karl Fischer titration by Coulometry

Aqualine	packaging	product code
	25 mL Glass bottle	K/2560/04

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Guaranteed analysis

Water <0.005%

Chlorine-free catholyte solution for general use in conventional cells with a diaphragm.

Karl Fischer Aqualine® Water standard 1.0 mg

For Karl Fischer titration

Aqualine	packaging	product code
	40 mL ampoule	K/2710/99

ADR/RID: 3/III
UN: 2222
HS-Nr: 38220000

Standard for Karl Fischer titration.
1 mL is equivalent to 1.00 + /-0.03 mg water.
Each pack contains 10 x 4mL ampoules and is supplied with a certificate of analysis.
Each ampoule has a shelf life of at least 5 years unopened.

Karl Fischer Aqualine® Water standard 5 mg For Karl Fischer titration



packaging	product code
500 mL Glass bottle	K/2730/08

ADR/RID: 3/III
UN: 1993
HS-Nr: 38220000

Standard for Karl Fischer titration.
1 mL is equivalent to 5.00 + /-0.02 mg water.

Karl Fischer Aqualine® Water standard 10 mg For Karl Fischer titration



packaging	product code
80 mL ampoule	K/2720/99

ADR/RID: 3/III
UN: 1993
HS-Nr: 38220000

Standard for Karl Fischer titration.
1 mL is equivalent to 10.00 + /-0.1 mg water.
Each pack contains 10 x 8mL ampoules and is supplied with a certificate of analysis.
Each ampoule has a shelf life of at least 5 years unopened.

Karl Fischer reagent solution, modified For Karl Fischer titration



packaging	product code
500 mL Coated Glass Bottle	J/4620/PB08
1 L Coated Glass Bottle	J/4620/PB15
2.5 L Coated Glass Bottle	J/4620/PB17

ADR/RID: 3/III
UN: 1993
HS-Nr: 38220000

Risk: R10, R23/24/25, R60, R61
Safety: S45, S53



Water equivalent approximately 5 mg / mL when prepared.

Karl Fischer reagent solution For Karl Fischer titration



packaging	product code
500 mL Coated Glass Bottle	J/4600/PB08
1 L Coated Glass Bottle	J/4600/PB15
2.5 L Coated Glass Bottle	J/4600/PB17

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Risk: R11, R23/24/25
Safety: S7, S26, S28



Guaranteed analysis

pH (aqueous solution 10%) 3.5 to 4.5

Water equivalent approximately 5 mg / mL when prepared.
This solution deteriorates on storage even closed containers.

Kieselguhr pure, white

packaging	product code
1 kg Plastic Keg	K/0090/60

SiO₂
CAS: 61790-53-2
MW: 60.08

HS-Nr: 25120000
Risk: R36/37, R48/20
Safety: S26, S39



Kieselguhr pure, washed with acid

packaging	product code
500 g Plastic Jar	K/0100/53
1 kg Plastic Keg	K/0100/60

SiO₂
CAS: 61790-53-2
MW: 60.08

HS-Nr: 25120000
Risk: R36/37, R48/20
Safety: S26, S39



Guaranteed analysis

IR Analysis Conform

Kjedhal Boric acid solution pure, solution 4% alkaline with indicator

packaging	product code
1 L Plastic bottle	K/0200/15
5 L Plastic bottle	K/0200/21

HS-Nr: 29181100

Assay: 3.9 to 4.1%

Guaranteed analysis

At pH 20°C 3.8 to 4.2

Kjeldahl catalyst Copper tablets pure

packaging	product code
500 Tablets	K/0120/80
1000 Tablets	K/0120/81

HS-Nr: 38220000

Each tablet contains 1 g of sodium sulphate and the equivalent of 0.1 g of copper sulfate (II)

Kjeldahl catalyst Copper tablets pure

packaging	product code
500 Tablets	K/0125/80
1000 Tablets	K/0125/81

HS-Nr: 38220000

Each tablet contains 5 g of sodium sulphate and the equivalent of 0.1 g of copper sulfate (II)

Kjeldahl catalyst Mercury tablets pure

packaging	product code
500 Tablets	K/0130/80

UN: 2025
HS-Nr: 38220000
Risk: R25, R33
Safety: S2, S13



Each tablet contains 1 g of sodium sulphate and the equivalent of 0.1 g of mercury

Kjeldahl catalyst Selenium tablets pure

packaging	product code
1 Tablets	K/0150/81
500 Tablets	K/0150/80

UN: 3283
HS-Nr: 28049000
Risk: R25, R33
Safety: S20/21, S28, S44



Each tablet contains 1 g of sodium sulphate and the equivalent of 0.05 g selenium

Kjeldahl catalyst Sodium sulfate tablets

pure

packaging	product code
500 Tablets	K/0160/80
1000 Tablets	K/0160/81

HS-Nr: 38220000

Each tablet contains 1 g of sodium sulphate

Kjeldahl catalyst Titanium tablets

pure

packaging	product code
1000 Tablets	K/0170/81

HS-Nr: 38220000

Each tablet contains 1 g of sodium sulphate and the equivalent of 0.03 g titanium dioxide and 0.03 g of copper sulphate

Kjeldahl Digestion reagent

pure

packaging	product code
2.5 L Coated Glass Bottle	K/0210/PB17

ADR/RID: 8/II

Risk: R35

UN: 1830

Safety: S26, S30, S45

HS-Nr: 29181100



Kjeldahl phenol reagent

pure, for determination of nitrogen

packaging	product code
1 L Plastic bottle	K/0220/15

ADR/RID: 6.1/II

Risk: R24/25, R35

UN: 2821

Safety: S26, S28, S37/39, S45

HS-Nr: 38220000



Kjeldhal Sodium hydroxide/sodium thiosulfate solution

pure, for Kjel-Foss automatic nitrogen analyser

packaging	product code
5 L Plastic bottle	K/0310/21

ADR/RID: 8/II

Risk: R35

UN: 1824

Safety: S26, S27, S37/39, S45

HS-Nr: 38220000



Solution: Sodium Hydroxide at 400 g / L and Sodium Thiosulfate 80 g / L

Lacmoid indicator

pure

packaging	product code
1 g Glass tube	L/0060/43

CAS: 42249-61-6

EINECS: 255-736-7

Risk: R20/21/22, R36/38

Guaranteed analysis

IR Analysis Conform

Lactic acid

for analysis

Certified AR, Eur.Ph.



packaging	product code
500 mL Plastic bottle	L/0150/PB08
2.5 L Plastic bottle	L/0150/PB17

 $C_3H_6O_3$

CAS: 598-82-3

MW: 90.08

Density at 20°C: 1.2

Boiling point: 122°C

Boiling pressure: 15 mmHg

Melting point: 18°C

Flash point: >110°C

ADR/RID: 8/III

UN: 3265

HS-Nr: 29181100

EINECS: 209-954-4

Risk: R34

Safety: S26, S36/37/39, S45



Assay: >88%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<10 ppm
Sugar reducer	Conform	Sodium (Na)	<20 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Lactic acid

extra pure

SLR



packaging	product code
500 mL Plastic bottle	L/0100/PB08
2.5 L Plastic bottle	L/0100/PB17

 $C_3H_6O_3$

CAS: 598-82-3

MW: 90.08

Density at 20°C: 1.2

Boiling point: 122°C

Boiling pressure: 15 mmHg

Melting point: 18°C

Flash point: >110°C

ADR/RID: 8/III

UN: 3265

HS-Nr: 29181100

EINECS: 209-954-4

Risk: R34

Safety: S26, S36/37/39, S45



Assay: >88%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<50 ppm
Chromium (Cr)	<5 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S)	<200 ppm
Nickel (Ni)	<5 ppm	Zinc (Zn)	<50 ppm

Lactose monohydrate

for analysis, fine powder

Certified AR



packaging	product code
500 g Plastic jar	L/0250/53
1 kg Plastic jar	L/0250/60

 $C_{12}H_{22}O_{11} \cdot H_2O$

CAS: 63-42-3

MW: 360.32

HS-Nr: 17021010

EINECS: 200-559-2

Guaranteed analysis

Acidity	<0.005 meq/g	Lithium (Li)	<1 ppm
Solubility in the alcohol	<0.2%	Magnesium (Mg)	<10 ppm
Specific rotation (α 20/D)	+52° to +52.8°	Manganese (Mn)	<1 ppm
Water	4.8 to 5.4%	Nickel (Ni)	<1 ppm
Aluminium (Al)	<2 ppm	Potassium (K)	<100 ppm
Arsenic (As)	<1 ppm	Sodium (Na)	<100 ppm
Barium (Ba)	<2 ppm	Titanium (Ti)	<1 ppm
Cadmium (Cd)	<1 ppm	Total chloride (Cl)	<0.005%
Calcium (Ca)	<50 ppm	Total nitrogen (N)	<500 ppm
Chromium (Cr)	<1 ppm	Total phosphorus (P)	<200 ppm
Cobalt (Co)	<1 ppm	Total silicon (Si)	<5 ppm
Copper (Cu)	<1 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<2 ppm	Vanadium (V)	<1 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<5 ppm

Standard Volumetric solution

NIST Certified & Conform

to Pharmacopeia

Read more on page 266



Lactose monohydrate extra pure, fine powder

SLR



packaging	product code
500 g Plastic jar	L/0200/53
1 kg Plastic jar	L/0200/60
5 kg Plastic drum	L/0200/65
25 kg Fibre Keg	L/0200/70

$C_{12}H_{22}O_{11} \cdot H_2O$
CAS: 63-42-3
MW: 360.32

HS-Nr: 17021010
EINECS: 200-559-2

Guaranteed analysis

Specific rotation (α 20/D) ...	+52° to +53°	Potassium (K)	<500 ppm
Water	4.5 to 6%	Sodium (Na)	<500 ppm
Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<5 ppm	Total phosphorus (P)	<1000 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<20 ppm

Lanolin anhydrous extra pure

SLR



packaging	product code
500 g Plastic jar	L/0350/53
1 kg Plastic jar	L/0350/60

CAS: 8006-54-0

HS-Nr: 15050090

Melting point: 38 to 40°C

EINECS: 232-348-6

Flash point: +209°C

Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Lanthanum chloride solution 10%w/v for AAS

packaging	product code
250 mL Glass bottle	L/0460/07
1 L Glass bottle	L/0460/15

$LaCl_3 \cdot 7H_2O$

HS-Nr: 28469000

Assay: 9.5 to 10.5%

Guaranteed analysis

Calcium (Ca)	<2 ppm	Lead (Pb)	<1 ppm
Copper (Cu)	<0.5 ppm	Magnesium (Mg)	<0.5 ppm
Iron (Fe)	<0.5 ppm	Zinc (Zn)	<0.5 ppm

Lanthanum standard metal solution 1000 ppm for ICP solution in HNO_3 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLA22Y
500 mL Plastic bottle	SPPLA22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lanthanum standard metal solution 10 000 ppm for ICP solution in HNO_3 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLA23Y
500 mL Plastic bottle	SPPLA23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lanthanum chloride heptahydrate for AAS

packaging	product code
25 g Plastic jar	L/0455/46
100 g Plastic jar	L/0455/48

$LaCl_3 \cdot 7H_2O$

CAS: 10025-84-0

MW: 371.36

Melting point: 91 °C

HS-Nr: 28469000

EINECS: 233-237-5

Risk: R36/37/38

Safety: S26, S37/39

Guaranteed analysis

Calcium (Ca) <10 ppm Magnesium (Mg) <1 ppm

Lanthanum chloride heptahydrate for analysis

Certified AR



packaging	product code
25 g Plastic jar	L/0451/46
100 g Plastic jar	L/0451/48

$LaCl_3 \cdot 7H_2O$

CAS: 10025-84-0

MW: 371.36

Melting point: 91 °C

HS-Nr: 28469000

EINECS: 233-237-5

Risk: R36/37/38

Safety: S26, S37/39

Assay: >99%

Guaranteed analysis

Aluminium (Al)	<1 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Molybdenum (Mo)	<1 ppm
Cadmium (Cd)	<1 ppm	Nickel (Ni)	<1 ppm
Calcium (Ca)	<10 ppm	Potassium (K)	<20 ppm
Chromium (Cr)	<1 ppm	Silver (Ag)	<1 ppm
Cobalt (Co)	<1 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<2 ppm	Titanium (Ti)	<1 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<10 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<5 ppm
Lithium (Li)	<1 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm

Lot analysis on the label.

Lanthanum nitrate hexahydrate extra pure

SLR



packaging	product code
25 g Plastic jar	L/0500/46
100 g Plastic jar	L/0500/48

$La(NO_3)_3 \cdot 6H_2O$

CAS: 10277-43-7

MW: 433.03

Boiling point: 126°C

Boiling pressure: 760 mmHg

Melting point: 40°C

ADR/RID: 5.1/II

UN: 1477

HS-Nr: 28469000

EINECS: 233-238-0

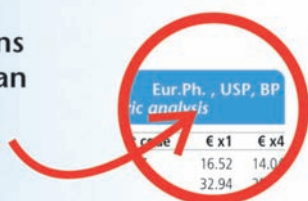
Risk: R8

Safety: S17

Assay: >99.5%

The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266



Lanthanum oxide extra pure

SLR



packaging	product code
100 g Plastic jar	L/0510/48

La₂O₃
CAS: 1312-81-8
MW: 325.82
Boiling point: 4200°C

Melting point: 2315°C
HS-Nr: 28469000
EINECS: 215-200-5
Safety: S24/25

Lauric acid extra pure

SLR



packaging	product code
500 g Plastic jar	L/0560/53

C₁₂H₂₄O₂
CAS: 143-07-7
MW: 200.32
Boiling point: 225°C
Boiling pressure: 100 mmHg
Melting point: 44 to 46°C

Flash point: 156°C
HS-Nr: 29159000
EINECS: 205-582-1
Risk: R36/38
Safety: S26, S37/39



Assay: 98 to 101%

di-Lauroyl peroxide pure

packaging	product code
1 g Glass Tube	L/0565/99
100 g Plastic Jar	L/0565/48

C₂₄H₄₆O₄
CAS: 105-74-8
MW: 398.63
Melting point: 53 to 57°C
ADR/RID: 5.2/II

UN: 3106
HS-Nr: 29159090
EINECS: 203-326-3
Risk: R7
Safety: S3/7, S14A, S36/37/39



Guaranteed analysis

IR Analysis Conform

Lead standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8035/05
500 mL Plastic bottle	J/8035/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lead standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8276/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lead standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8275/05

ADR/RID: 6.1(8)/II
UN: 3289
HS-Nr: 38220000

Risk: R61, R20/22, R33, R34, R52/53
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lead standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLPB22Y
250 mL Plastic bottle	SPPLPB22T
500 mL Plastic bottle	SPPLPB22X

Density at 20°C: 1.02
Risk: R36/38
Safety: S26



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lead standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLPB23Y
500 mL Plastic bottle	SPPLPB23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lead standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLPB22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lead metal powder extra pure, below 200 mesh

SLR



packaging	product code
500 g Plastic jar	L/0750/53

Pb
CAS: 7439-92-1
MW: 207.19
Boiling point: 1740°C
Boiling pressure: 760 mmHg
Melting point: 327.4°C

HS-Nr: 78042000
EINECS: 231-100-4
Risk: R61, R62, R20/22, R33, R50/53
Safety: S53, S45, S60, S61



Lead metal foil extra pure, about 0.13 mm

SLR

packaging	product code
500 Box	L/0610/53
Pb CAS: 7439-92-1 MW: 207.19 Boiling point: 1740°C Boiling pressure: 760 mmHg Melting point: 327.4°C	HS-Nr: 38220000 EINECS: 231-100-4 Risk: R61, R20/22, R33, R50/53, R62 Safety: S53, S45, S60, S61



Lead metal granulated pure

packaging	product code
500 g Plastic Jar	L/0700/53
Pb CAS: 7439-92-1 MW: 207.19 Boiling point: 1740°C Boiling pressure: 760 mmHg Melting point: 327.4°C	HS-Nr: 78011000 EINECS: 231-100-4 Risk: R61, R62, R20/22, R33, R50/53 Safety: S53, S45, S60, S61



Guaranteed analysis

Copper (Cu) <200 ppm	Iron (Fe) <10 ppm
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Lead metal shot extra pure, about 2 mm

SLR

packaging	product code
1 kg Plastic jar	L/0800/60
Pb CAS: 7439-92-1 MW: 207.19 Boiling point: 1740°C Boiling pressure: 760 mmHg Melting point: 327.4°C	HS-Nr: 78011000 EINECS: 231-100-4 Risk: R61, R62, R20/22, R33, R50/53 Safety: S53, S45, S60, S61



Lead(II) acetate trihydrate for analysis

Certified AR

packaging	product code
250 g Plastic jar	L/1000/50
500 g Plastic jar	L/1000/53
1 kg Plastic jar	L/1000/60
Pb(CH ₃ CO ₂) ₂ ·3H ₂ O CAS: 6080-56-4 MW: 379.33 Melting point: 75°C ADR/RID: 6.1/III	UN: 1616 HS-Nr: 29152900 Risk: R61, R33, R48/22, R50/53, R62 Safety: S53, S45, S60, S61



Assay: >99.5%

Guaranteed analysis

Calcium (Ca) <5 ppm	Total chloride (Cl) <0.0005 %
Copper (Cu) <5 ppm	Total nitrogen (N) <20 ppm
Iron (Fe) <5 ppm	Total phosphorus (P) <20 ppm
Magnesium (Mg) <5 ppm	Total silicon (Si) <20 ppm
Potassium (K) <10 ppm	Total sulphur (S) <50 ppm
Sodium (Na) <20 ppm	Zinc (Zn) <5 ppm

Typical analysis

Aluminium (Al) <1 ppm	Lithium (Li) <1 ppm
Arsenic (As) <2 ppm	Manganese (Mn) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Titanium (Ti) <1 ppm
Chromium (Cr) <1 ppm	Vanadium (V) <1 ppm
Cobalt (Co) <1 ppm	

Lot analysis on the label.

Lead(II) acetate trihydrate extra pure

SLR

packaging	product code
250 g Plastic jar	L/0950/50
500 g Plastic jar	L/0950/53
1 kg Plastic jar	L/0950/60
Pb(CH ₃ CO ₂) ₂ ·3H ₂ O CAS: 6080-56-4 MW: 379.33 Melting point: 75°C ADR/RID: 6.1/III	UN: 1616 HS-Nr: 29152900 Risk: R61, R33, R48/22, R50/53, R62 Safety: S53, S45, S60, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca) <100 ppm	Total chloride (Cl) <0.005%
Copper (Cu) <50 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <50 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <200 ppm
Potassium (K) <100 ppm	Zinc (Zn) <50 ppm
Sodium (Na) <200 ppm	

Lead(II) bromide pure

packaging	product code
100 g Plastic jar	L/1100/48
250 g Plastic jar	L/1100/50

PbBr ₂ CAS: 10031-22-8 MW: 367.01 Density at 20°C: 6.66 Boiling point: 916°C Boiling pressure: 760 mmHg Melting point: 373°C	ADR/RID: 6.1/III UN: 2291 HS-Nr: 28275900 EINECS: 233-084-4 Risk: R61, R62, R20/22, R33, R50/53 Safety: S53, S45, S60, S61
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Lead(II) carbonate basic extra pure, precipitated

SLR

packaging	product code
250 g Plastic jar	L/1150/50
500 g Plastic jar	L/1150/53
(PbCO ₃) ₂ ·Pb(OH) ₂ CAS: 1319-46-6 MW: 775.59 Melting point: 400 °C ADR/RID: 6.1/III UN: 3288	HS-Nr: 28369917 EINECS: 215-290-6 Risk: R61, R62, R20/22, R33, R50/53 Safety: S53, S45, S60, S61



Lead(II) chloride extra pure

SLR

packaging	product code
250 g Plastic jar	L/1200/50
PbCl ₂ CAS: 7758-95-4 MW: 278.09 Density at 20°C: 5.85 Boiling point: 950°C Melting point: 501°C ADR/RID: 6.1/III	UN: 3288 HS-Nr: 28273985 EINECS: 231-845-5 Risk: R61, R62, R20/22, R33, R50/53 Safety: S53, S45, S60, S61



Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia
Read more on page 191



Lead(II) acetate basic pure, for sugar analysis

packaging	product code
500 g Plastic jar	L/1050/53
25 kg Plastic screw top Keg	L/1050/70
(CH ₃ COO) ₂ Pb. 2Pb(OH) ₂ (approx) CAS: 1335-32-6 Density at 20°C: 1.33 ADR/RID: 6.1/III	UN: 1616 HS-Nr: 29152900 EINECS: 215-630-3 Risk: R61, R62, R33, R40, R48/22 Safety: S53, S45
Assay: >95%	
Guaranteed analysis	
Copper (Cu) <100 ppm	Nitrate (NO ₃) <0.01%
Iron (Fe) <100 ppm	



Lead(II) sulfide pure

packaging	product code
100 g Glass packaging	L/1730/48
PbS CAS: 1314-87-0 MW: 239.26 ADR/RID: 6.1/III UN: 3288	HS-Nr: 28332960 EINECS: 215-246-6 Risk: R61, R62, R20/22, R33 Safety: S53, S45



Lead(II) iodide extra pure

SLR

packaging	product code
100 g Glass packaging	L/1400/48
PbI ₂ CAS: 10101-63-0 MW: 461 Density at 20°C: 6.16 Melting point: 402°C ADR/RID: 6.1/III	UN: 2291 HS-Nr: 28276000 EINECS: 233-256-9 Risk: R61, R62, R20/22, R33, R50/53 Safety: S53, S45, S60, S61



Lead(II) nitrate for analysis

Certified AR

packaging	product code
250 g Plastic jar	L/1500/50
500 g Plastic jar	L/1500/53
1 kg Plastic jar	L/1500/60
Pb(NO ₃) ₂ CAS: 10099-74-8 MW: 331.2 Density at 20°C: 4.53 Melting point: 470 °C ADR/RID: 5.1(6.1)/II	UN: 1469 HS-Nr: 28342950 EINECS: 233-245-9 Risk: R61, R8, R20/22, R33, R50/53, R62 Safety: S53, S17, S45, S60, S61



Assay: >99.5%	
Guaranteed analysis	
pH (aqueous solution 5%) 3 to 4	Sodium (Na) <20 ppm
Calcium (Ca) <5 ppm	Total chloride (Cl) <0.0005 %
Copper (Cu) <5 ppm	Total phosphorus (P) <20 ppm
Iron (Fe) <5 ppm	Total silicon (Si) <20 ppm
Magnesium (Mg) <5 ppm	Total sulphur (S) <50 ppm
Potassium (K) <10 ppm	Zinc (Zn) <5 ppm
Typical analysis	
Aluminium (Al) <1 ppm	Lithium (Li) <1 ppm
Arsenic (As) <2 ppm	Manganese (Mn) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Titanium (Ti) <1 ppm
Chromium (Cr) <1 ppm	Vanadium (V) <1 ppm
Cobalt (Co) <1 ppm	

Lot analysis on the label.

Lead(II) nitrate extra pure

SLR

packaging	product code
500 g Plastic jar	L/1450/53
1 kg Plastic jar	L/1450/60
Pb(NO ₃) ₂ CAS: 10099-74-8 MW: 331.2 Density at 20°C: 4.53 Melting point: 470 °C ADR/RID: 5.1(6.1)/II	UN: 1469 HS-Nr: 28342950 EINECS: 233-245-9 Risk: R61, R8, R20/22, R33, R50/53, R62 Safety: S53, S17, S45, S60, S61
Assay: >99%	
Guaranteed analysis	
Calcium (Ca) <100 ppm	Total chloride (Cl) <0.005%
Copper (Cu) <20 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <20 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <20 ppm	Total sulphur (S) <200 ppm
Potassium (K) <100 ppm	Zinc (Zn) <50 ppm
Sodium (Na) <200 ppm	



Lead(II) oxide extra pure

SLR

packaging	product code
500 g Plastic jar	L/1600/53
PbO CAS: 1317-36-8 MW: 223.19 Boiling point: 1470°C Melting point: 886°C ADR/RID: 6.1/III	UN: 3288 HS-Nr: 28241000 EINECS: 215-267-0 Risk: R61, R20/22, R33, R50/53, R62 Safety: S53, S45, S60, S61



Assay: >98%	
Guaranteed analysis	
Calcium (Ca) <100 ppm	Total chloride (Cl) <0.02%
Copper (Cu) <50 ppm	Total phosphorus (P) <100 ppm
Iron (Fe) <50 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <200 ppm
Potassium (K) <100 ppm	Zinc (Zn) <50 ppm
Sodium (Na) <200 ppm	

Lead(II) oxide

Technical, canary yellow

packaging	product code
500 g Plastic jar	L/1670/53
PbO CAS: 1317-36-8 MW: 223.19 Boiling point: 1470°C Melting point: 886°C ADR/RID: 6.1/III	UN: 3288 HS-Nr: 28241000 EINECS: 215-267-0 Risk: R61, R20/22, R33, R50/53, R62 Safety: S53, S45, S60, S61



Lead (II,V)oxide

extra pure, minium, red lead

SLR

packaging	product code
500 g Plastic jar	L/1700/53
Pb ₃ O ₄ CAS: 1314-41-6 MW: 685.57 Melting point: 500 °C ADR/RID: 6.1/III UN: 3288	HS-Nr: 38220000 EINECS: 215-235-6 Risk: R61, R8, R20/22, R33, R50/53, R62 Safety: S53, S45, S60, S61



Save money!
Order 4 bottles in a box



Lead(IV) dioxide extra pure

SLR



packaging	product code
250 g Plastic jar	L/1350/50
500 g Plastic jar	L/1350/53

PbO₂
CAS: 1309-60-0
MW: 239.19
Melting point: 290 °C
ADR/RID: 5.1/III
UN: 1872

HS-Nr: 28249090
EINECS: 215-174-5
Risk: R61, R8, R20/22, R33, R50/53, R62
Safety: S53, S45, S60, S61



Assay: >94%

Guaranteed analysis

Sulfate (SO₄) <0.01%

Lead(II) sulfate extra pure

SLR



packaging	product code
500 g Plastic jar	L/1720/53

PbSO₄
CAS: 7446-14-2
MW: 303.25
ADR/RID: 6.1/III

UN: 3288
HS-Nr: 28332960
EINECS: 231-198-9



Leishman's stain pure

packaging	product code
10 g Glass packaging	L/1815/45

CAS: 12627-53-1
HS-Nr: 29051100
EINECS: 235-732-1

Risk: R36/38
Safety: S26, S37/39



Leishman's stain solution pure, in 100% Methanol

packaging	product code
100 mL Coated Glass Bottle	L/1815L/PB05

Flash point: 10°C
ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000

Risk: R11, R39/23/24/25, R23/24/25
Safety: S7, S16, S36/37



L-Leucine extra pure

SLR



packaging	product code
100 g Plastic jar	L/1819/48

C₆H₁₃NO₂
CAS: 61-90-5
MW: 131.18
Boiling pressure: 760 mmHg

Melting point: 286-288°C
HS-Nr: 29224990
EINECS: 200-522-0
Safety: S24/25

Assay: >99%

L-iso-Leucine pure

packaging	product code
25 g Plastic jar	L/1822/46

C₆H₁₃NO₂
CAS: 73-32-5
MW: 131.18
Boiling pressure: 760 mmHg

Melting point: 168-170°C
HS-Nr: 29224990
EINECS: 200-522-2
Safety: S24/25

Assay: >99%

Guaranteed analysis

Melting Point tested 287 to 288°C

Light green SF C.I 42095 pure

packaging	product code
25 g Glass packaging	L/1840/46

C₃₇H₃₄N₂Na₂O₉S₃
CAS: 5141-20-8
MW: 792.84
Melting point: 288 °C

HS-Nr: 32041200
EINECS: 225-906-5
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Ligroin extra pure

SLR



packaging	product code
2.5 L Glass bottle	L/1850/17

CAS: 8032-32-4
Density at 20°C: 0.71 to 0.73
Flash point: -40°C
ADR/RID: 3/II
UN: 1268

HS-Nr: 27101125
EINECS: 232-453-7
Risk: R11
Safety: S9, S16, S29, S23



Guaranteed analysis

Number of bromine <3 Residue after evaporation <50 ppm

Ligroine See Petroleum ether over 120°C, page 190



Lime water pure

packaging	product code
5 L Plastic bottle	J/5000/21

HS-Nr: 38220000

D(+) Limonene pure

packaging	product code
250 mL Glass bottle	L/1860/07

C₁₀H₁₆
CAS: 5989-27-5
MW: 136.24
Density at 20°C: 0.8 to 0.9
Boiling point: 175.4 to 176°C
Boiling pressure: 760 mmHg
Melting point: -74°C

Flash point: 48°C
ADR/RID: 3/III
UN: 2052
HS-Nr: 29021910
EINECS: 227-813-5
Risk: R10, R38, R43, R50/53
Safety: S24, S37, S60, S61



Linseed oil pure, raw approx.d= 0.93

packaging	product code
2.5 L Glass bottle	L/1950/17

CAS: 8001-26-1
HS-Nr: 38220000
EINECS: 232-278-6

Guaranteed analysis

Density 15.5°C 0.92 to 0.94

Linseed oil pure, boiled approx.d= 0.95

packaging	product code
2.5 L Glass bottle	L/1900/17

CAS: 8001-26-1
Density at 20°C: 0.93
HS-Nr: 38220000

EINECS: 232-278-6
Risk: R10, R38, R43, R50/53

Guaranteed analysis

Density 15.5°C 0.94 to 0.96

Lithium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8037/05
500 mL Plastic bottle	J/8037/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 28342980

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8281/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8280/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 28342980

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLLI22Y
500 mL Plastic bottle	SPPLLI22X

Density at 20°C: 1.02
Risk: R36/37/38
Safety: S24/25



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLLI12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLLI23Y
500 mL Plastic bottle	SPPLLI23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLLI13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Lithium standard solution 1000 ppm (1 mg/ml) for Ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4550/05

HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45



Guaranteed analysis

Value between 9990 to 1010

Manufactured to a tolerance of $\pm 1\%$.

Lithium metal in liquid paraffin extra pure

SLR

packaging	product code
10 g Metal Can	L/2000/45

Li
CAS: 7439-93-2
MW: 6.94
Density at 20°C: 0.53
Boiling point: 1340°C
Boiling pressure: 760 mmHg
Melting point: 180°C

ADR/RID: 4.3/I
UN: 1415
HS-Nr: 28051990
EINECS: 231-102-5
Risk: R14/15, R34
Safety: S8, S43C, S45



Lithium acetate dihydrate extra pure

SLR

packaging	product code
250 g Plastic jar	L/2050/50

C₂H₃LiO₂·2H₂O
CAS: 546-89-4
MW: 102.02
Melting point: 280 to 285°C

HS-Nr: 29152900
EINECS: 208-914-3
Risk: R36
Safety: S26, S39



Lithium hydroxide monohydrate extra pure

SLR

SpeciFied

packaging	product code
100 g Plastic jar	L/2300/48
250 g Plastic jar	L/2300/50
1 kg Plastic jar	L/2300/60
10 kg Plastic screw top Keg	L/2300/68

LiOH.H₂O
CAS: 1310-66-3
MW: 41.96
Boiling point: 920°C
Boiling pressure: 760 mmHg
Melting point: 462°C

ADR/RID: 8/II
UN: 2680
HS-Nr: 28252000
EINECS: 215-183-4
Risk: R20/22, R35
Safety: S22, S26, S36/37/39, S45



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Carbonate (Na ₂ CO ₃)	<1%	Total chloride (Cl)	<0.005%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<500 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<50 ppm		

Lithium sulfate monohydrate for analysis

Certified AR

AR

packaging	product code
100 g Plastic jar	L/2450/48

Li₂SO₄.H₂O
CAS: 10102-25-7
MW: 127.95
Density at 20°C: 2.22

HS-Nr: 28332990
EINECS: 233-820-4
Risk: R22

Xn



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Manganese (Mn)	<1 ppm
Aluminium (Al)	<1 ppm	Nickel (Ni)	<2 ppm
Arsenic (As)	<2 ppm	Potassium (K)	<50 ppm
Barium (Ba)	<2 ppm	Sodium (Na)	<50 ppm
Cadmium (Cd)	<1 ppm	Titanium (Ti)	<1 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001%
Chromium (Cr)	<1 ppm	Total nitrogen (N)	<20 ppm
Cobalt (Co)	<1 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Vanadium (V)	<1 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<5 ppm		

Lot analysis on the label.

Lithium iodide trihydrate extra pure

SLR

SpeciFied

packaging	product code
100 g Glass packaging	L/2320/48

LiI.3H₂O
CAS: 7790-22-9
MW: 187.89
Density at 20°C: 3.49

HS-Nr: 28276000
EINECS: 233-822-5
Safety: S24/25

Lithium sulfate monohydrate extra pure

SLR

SpeciFied

packaging	product code
500 g Plastic jar	L/2400/53

Li₂SO₄.H₂O
CAS: 10102-25-7
MW: 127.95
Density at 20°C: 2.22

HS-Nr: 28332990
EINECS: 233-820-4
Risk: R22

Xn



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<200 ppm		

Lithium metaborate anhydrous extra pure

SLR

SpeciFied

packaging	product code
100 g Plastic jar	L/2330/48

LiBO₂
CAS: 13453-69-5
MW: 49.75
Melting point: 845°C

HS-Nr: 28402090
EINECS: 236-631-5
Safety: S24/25

Guaranteed analysis

Calcium (Ca)	<50 ppm	Lead (Pb)	<50 ppm
Iron (Fe)	<50 ppm	Magnesium (Mg)	<20 ppm

To determine the melting point.

Litmus

pure, indicator grade

packaging	product code
25 g Glass packaging	L/2500/46

CAS: 1393-92-6
HS-Nr: 32030010
EINECS: 215-739-6
Safety: S24/25

Guaranteed analysis

At pH 20°C 5.0-8.0 red to blue pH

Lithium nitrate anhydrous **NEW SPEC.** extra pure

SLR

SpeciFied

packaging	product code
100 g Plastic jar	L/2350/48
10 kg Plastic drum	L/2350/68

LiNO₃
CAS: 7790-69-4
MW: 68.95
Density at 20°C: 2.38
Boiling point: 600°C
Boiling pressure: 760 mmHg
Melting point: 251°C

ADR/RID: 5.1/III
UN: 2722
HS-Nr: 28342980
EINECS: 232-218-9
Risk: R8
Safety: S17



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<20 ppm	Zinc (Zn)	<20 ppm

Litmus solution pure, indicator grade

packaging	product code
500 mL Glass bottle	L/2500L/08

HS-Nr: 38220000

pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Lotoxane® pure

packaging	product code
1 L Glass bottle	L/2550/15
2.5 L Glass bottle	L/2550/17
25 L Metal drum	L/2550/25

Density at 20°C: 0.76 to 0.78
HS-Nr: 27101190

Non chlorinated aromatic solvent to replace 1,1,1-trichloroethane in cold cleaning applications.

see page 279 for suitable Tap & accessories.

Luminol See 3-Aminophthalhydrazide (Luminol), page 17



Lutetium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLLU22Y
500 mL Plastic bottle	SPPLLU22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



L-Lysine monohydrochloride extra pure

SLR

packaging	product code
100 g Plastic jar	L/2700/48

C₆H₁₄N₂O₂·HCl

CAS: 657-27-2

MW: 182.65

Melting point: 263-264°C

Assay: >98%

Guaranteed analysis

Loss on drying	<0.5%	Iron (Fe)	<10 ppm
Residue after ignition	<0.1%	Lead (Pb)	<10 ppm
Specific rotation (α 20/D)	+19° to +22°		

Magnesium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8040/05
500 mL Plastic bottle	J/8040/08

ADR/RID: 8/II

UN: 2031

HS-Nr: 38220000

Risk: R34

Safety: S23, S26, S36, S45

Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8286/08

ADR/RID: 8/II

UN: 2031

HS-Nr: 38220000

Risk: R34

Safety: S23, S26, S36, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8285/05

ADR/RID: 8/II

UN: 2031

HS-Nr: 38220000

Risk: R34

Safety: S23, S26, S36, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLMG22Y
250 mL Plastic bottle	SPPLMG22T

Density at 20°C: 1.02

Risk: R36/38

Safety: S26

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLMG12X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLMG23Y
500 mL Plastic bottle	SPPLMG23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLMG13X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Magnesium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLMG22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Magnesium metal powder extra pure

SLR



packaging	product code
250 g Plastic jar	M/0050/50
500 g Plastic jar	M/0050/53

Mg
CAS: 7439-95-4
MW: 24.3
Density at 20°C: 1.74
Boiling point: 1107°C
Boiling pressure: 760 mmHg
Melting point: 651°C

Flash point: 500°C
ADR/RID: 4.1/III
UN: 1418
HS-Nr: 38220000
EINECS: 231-104-6
Risk: R11, R15
Safety: S7/8, S43A

Magnesium metal ribbon extra pure

SLR



packaging	product code
25 g Plastic jar	M/0100/46

Mg
CAS: 7439-95-4
MW: 24.3
Density at 20°C: 1.74
Boiling point: 1107°C
Boiling pressure: 760 mmHg
Melting point: 651°C

Flash point: 500°C
ADR/RID: 4.1/III
UN: 1869
HS-Nr: 38220000
EINECS: 231-104-6
Risk: R11, R15
Safety: S7/8, S43A

Magnesium metal turnings pure, for Grignard reaction

packaging	product code
250 g Plastic jar	M/0200/50
500 g Plastic jar	M/0200/53

Mg
CAS: 7439-95-4
MW: 24.3
Density at 20°C: 1.74
Boiling point: 1107°C
Boiling pressure: 760 mmHg
Melting point: 651°C

Flash point: 500°C
ADR/RID: 4.1/III
UN: 1869
HS-Nr: 38220000
EINECS: 231-104-6
Risk: R11, R15
Safety: S7/8, S43A

Magnesium acetate tetrahydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	M/0350/53

C₄H₆O₄Mg·4H₂O
CAS: 16674-78-5
MW: 214.46
Melting point: 80°C

HS-Nr: 29152900
EINECS: 205-554-9
Safety: S24/25

Assay: 99.5 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 9	Nickel (Ni)	<1 ppm
Aluminium (Al)	<2 ppm	Potassium (K)	<10 ppm
Barium (Ba)	<0.001%	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Sodium (Na)	<10 ppm
Calcium (Ca)	<20 ppm	Strontium (Sr)	<5 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<2 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<20 ppm
Lithium (Li)	<1 ppm	Total sulphur (S)	<50 ppm
Manganese (Mn)	<0.001%	Vanadium (V)	<1 ppm
Molybdenum (Mo)	<1 ppm	Zinc (Zn)	<5 ppm

Lot analysis on the label.

Magnesium acetate tetrahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	M/0300/53

C₄H₆O₄Mg·4H₂O
CAS: 16674-78-5
MW: 214.46
Melting point: 80°C

HS-Nr: 29152900
EINECS: 205-554-9
Safety: S24/25

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm
Sodium (Na)	<50 ppm		

Magnesium bromide hexahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	M/0400/53

MgBr₂·6H₂O
CAS: 13446-53-2
MW: 292.22
Melting point: 165 °C

HS-Nr: 28275900
EINECS: 232-170-9
Risk: R36/37/38
Safety: S26, S37/39

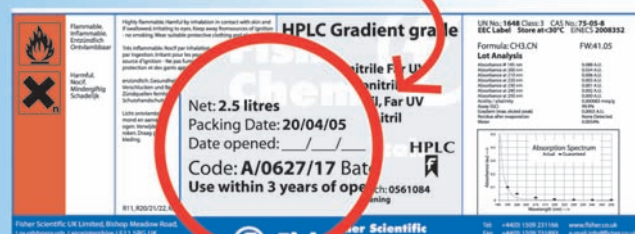
Assay: >98%

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Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Use best before information on the label



Magnesium carbonate pentahydrate for analysis, basic light

Certified AR



packaging	product code
100 g Plastic jar	M/0515/48

4MgCO₃·Mg(OH)₂·5H₂O
CAS: 12125-28-9
MW: 485.65
Density at 20°C: 2.16

HS-Nr: 28369911
EINECS: 235-192-7
Safety: S24/25

Assay: 99 to 103%

Guaranteed analysis

Aluminium (Al)	<0.001%	Potassium (K)	<20 ppm
Barium (Ba)	<0.001%	Silver (Ag)	<2 ppm
Cadmium (Cd)	<2 ppm	Sodium (Na)	<1000 ppm
Calcium (Ca)	<100 ppm	Strontium (Sr)	<5 ppm
Chromium (Cr)	<2 ppm	Titanium (Ti)	<2 ppm
Cobalt (Co)	<2 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<5 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<10 ppm	Total phosphorus (P)	<10 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Lithium (Li)	<2 ppm	Total sulphur (S)	<50 ppm
Manganese (Mn)	<5 ppm	Vanadium (V)	<2 ppm
Molybdenum (Mo)	<2 ppm	Zinc (Zn)	<10 ppm
Nickel (Ni)	<0.002%		

Lot analysis on the label.

Magnesium carbonate pentahydrate extra pure, heavy

SLR, Eur.Ph.,BP



packaging	product code
500 g Plastic jar	M/0450/53

MgCO₃·5H₂O
CAS: 12125-28-9
MW: 62.31

HS-Nr: 28369911
EINECS: 235-192-7

Guaranteed analysis

Residue after ignition	42 to 45%	Sodium (Na)	<5000 ppm
Calcium (Ca)	<10 000 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<500 ppm	Total silicon (Si)	<500 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<5000 ppm
Potassium (K)	<200 ppm	Zinc (Zn)	<100 ppm

Magnesium carbonate pentahydrate extra pure, light

SLR, Eur.Ph.,BP



packaging	product code
500 g Plastic jar	M/0500/53

MgCO₃·5H₂O
CAS: 12125-28-9
MW: 62.31

HS-Nr: 28369911
EINECS: 235-192-7

Guaranteed analysis

Residue after ignition	42 to 45%	Sodium (Na)	<5000 ppm
Calcium (Ca)	<10 000 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<500 ppm	Total sulphur (S)	<5000 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<200 ppm		

Magnesium chloride hexahydrate for analysis

Certified AR, Eur.Ph.,BP



packaging	product code
500 g Plastic jar	M/0600/53
1 kg Plastic jar	M/0600/60
2 kg Plastic jar	M/0600/61
5 kg Plastic drum	M/0600/65

MgCl₂·6H₂O
CAS: 7791-18-6
MW: 203.31
Density at 20°C: 1.56

Melting point: 117°C
HS-Nr: 28273100
EINECS: 232-094-6
Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Sodium (Na)	<10 ppm
Calcium (Ca)	<20 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<20 ppm
Potassium (K)	<10 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<0.001 %	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.002 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Magnesium chloride hexahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	M/0550/53
1 kg Plastic jar	M/0550/60
5 kg Plastic drum	M/0550/65

MgCl₂·6H₂O
CAS: 7791-18-6
MW: 203.31

Melting point: 117°C
HS-Nr: 28273100
EINECS: 232-094-6
Safety: S24/25

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm

Magnesium chloride 50% w/w solution for analysis

Certified AR



packaging	product code
2.5 L Glass bottle	M/0602/17

MgCl₂+aq
CAS: 7791-18-6
MW: 203.31

HS-Nr: 28273100
Safety: S24/25

Assay: 49 to 51%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 5.5	Nickel (Ni)	<1 ppm
Aluminium (Al)	<1 ppm	Potassium (K)	<10 ppm
Barium (Ba)	<0.001%	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Sodium (Na)	<10 ppm
Calcium (Ca)	<20 ppm	Strontium (Sr)	<0.002%
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<20 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<5 ppm	Zinc (Zn)	<5 ppm
Molybdenum (Mo)	<1 ppm		

Lot analysis on the label.

Magnesium hydroxide extra pure

SLR



packaging	product code
500 g Plastic jar	M/0650/53

Mg(OH)₂
CAS: 1309-42-8
MW: 58.33
Melting point: 350 °C

HS-Nr: 28161000
EINECS: 215-170-3
Risk: R36/37/38
Safety: S26, S37/39



Magnesium nitrate hexahydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	M/0752/53
1 kg Plastic jar	M/0752/60

$\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
 CAS: 13446-18-9
 MW: 256.41
 Density at 20°C: 1.63
 Boiling point: 330°C
 Boiling pressure: 760 mmHg
 Melting point: 89°C

Flash point: 93.3°C
 ADR/RID: 5.1/III
 UN: 1474
 HS-Nr: 28342980
 EINECS: 233-826-7
 Risk: R8, R36/37/38
 Safety: S17, S36, S37/39



Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Sodium (Na)	<10 ppm
Ammonium (NH_4)	<0.002 %	Total chloride (Cl)	<0.001 %
Calcium (Ca)	<20 ppm	Total phosphorus (P)	<5 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<5 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<10 ppm		

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<0.001 %	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.002 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Magnesium nitrate hexahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	M/0750/53

$\text{Mg}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$
 CAS: 13446-18-9
 MW: 256.41
 Density at 20°C: 1.63
 Boiling point: 330°C
 Boiling pressure: 760 mmHg
 Melting point: 89°C

Flash point: 93.3°C
 ADR/RID: 5.1/III
 UN: 1474
 HS-Nr: 28342980
 EINECS: 233-826-7
 Risk: R8, R36/37/38
 Safety: S17, S36, S37/39



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.01 %
Copper (Cu)	<10 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm
Sodium (Na)	<50 ppm		

Magnesium oxide extra pure, light

SLR, Eur.Ph.,BP



packaging	product code
500 g Plastic jar	M/0850/53
1 kg Plastic drum	M/0850/60

MgO
 CAS: 1309-48-4
 MW: 40.31
 Density at 20°C: 3.58
 Boiling point: 3600°C

Boiling pressure: 760 mmHg
 Melting point: 2800°C
 HS-Nr: 25199010
 EINECS: 215-171-9
 Safety: S24/25

Guaranteed analysis

Loss on ignition	<5%	Lead (Pb)	<20 ppm
Arsenic (As)	<5 ppm	Total chloride (Cl)	<0.1%
Copper (Cu)	<50 ppm	Total sulphur (S)	<10 000 ppm
Iron (Fe)	<500 ppm	Zinc (Zn)	<50 ppm

Magnesium oxide extra pure, heavy

SLR, Eur.Ph.,USP,BP



packaging	product code
500 g Plastic jar	M/0800/53

MgO
 CAS: 1309-48-4
 MW: 40.31
 Density at 20°C: 3.58
 Boiling point: 3600°C

Boiling pressure: 760 mmHg
 Melting point: 2800°C
 HS-Nr: 25199010
 EINECS: 215-171-9
 Safety: S24/25

Guaranteed analysis

Loss on ignition	<5%	Lead (Pb)	<20 ppm
Arsenic (As)	<5 ppm	Total chloride (Cl)	<0.1%
Copper (Cu)	<50 ppm	Total sulphur (S)	<10 000 ppm
Iron (Fe)	<500 ppm	Zinc (Zn)	<50 ppm

Magnesium perchlorate dried pure, Desiccating agent

packaging	product code
250 g Plastic jar	M/0950/50
500 g Plastic jar	M/0950/53

$\text{Mg}(\text{ClO}_4)_2$
 CAS: 10034-81-8
 MW: 223.21
 Melting point: 251°C
 ADR/RID: 5.1/II

UN: 1475
 HS-Nr: 28299010
 EINECS: 233-108-3
 Risk: R8, R36/37/38
 Safety: S17, S26, S37/39



Magnesium stearate extra pure

SLR, Eur.Ph.,BP,USP



packaging	product code
500 g Plastic jar	M/0955/53

$\text{C}_{36}\text{H}_{70}\text{MgO}_4$
 CAS: 557-04-0
 MW: 591.27
 Melting point: 130 to 140°C

HS-Nr: 29157030
 EINECS: 209-150-3
 Risk: R36/37/38
 Safety: S26, S37/39

Guaranteed analysis

IR Analysis Conform

Magnesium sulfate extra pure, dried

SLR



packaging	product code
500 g Plastic jar	M/1100/53
1 kg Plastic jar	M/1100/60
2 kg Plastic jar	M/1100/61
10 kg Plastic drum	M/1100/68

MgSO_4
 CAS: 7487-88-9
 MW: 120.37
 Density at 20°C: 2.66

Melting point: 1124°C
 HS-Nr: 28332100
 EINECS: 231-298-2
 Safety: S24/25

Assay: 62 to 70%

Guaranteed analysis

Iron (Fe)	<10 ppm	Total chloride (Cl)	<0.05%
Lead (Pb)	<10 ppm		

Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.

Choose between Optima®, Trace Metal® & Primar Plus® grade.

Read more page 9



Magnesium sulfate heptahydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	M/1050/53
1 kg Plastic jar	M/1050/60
5 kg Plastic drum	M/1050/65

MgSO₄·7H₂O
CAS: 10034-99-8
MW: 246.48
HS-Nr: 28332100
EINECS: 231-229-8
Safety: S24/25

Assay: 99.5 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Sodium (Na)	<20 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<2 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<2 ppm	Total phosphorus (P)	<5 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<5 ppm
Potassium (K)	<20 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<0.001 %	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<0.002 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Magnesium sulfate heptahydrate extra pure

SLR, Eur.Ph.,USP,BP



packaging	product code
1 kg Plastic jar	M/1000/60
2.5 kg Plastic jar	M/1000/62
5 kg Plastic drum	M/1000/65

MgSO₄·7H₂O
CAS: 10034-99-8
MW: 246.48
HS-Nr: 28332100
EINECS: 231-229-8
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<500 ppm
Potassium (K)	<500 ppm	Zinc (Zn)	<20 ppm

Malachite Green (oxalate) C.I. 42000 pure

packaging	product code
25 g Glass packaging	M/1245/46

C₂₃H₃₅N₂·1/2C₂H₂O₄
C₂H₂O₄
CAS: 2437-29-8
MW: 927.03
Melting point: 164 °C
ADR/RID: 9/III
UN: 3077
HS-Nr: 32041300
EINECS: 241-922-5
Risk: R22, R41, R50/53, R63
Safety: S2, S26, S36/37, S39, S46, S60, S61



Guaranteed analysis

IR Analysis Conform

NIST Certified Standard from SPEX

A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS
Discover them on page 258



Maleic acid for analysis

Certified AR



packaging	product code
500 g Plastic jar	M/1255/53

C₄H₄O₄
CAS: 110-16-7
MW: 116.08
Melting point: 134 to 138°C
Flash point: 127°C
HS-Nr: 29171990
EINECS: 203-742-5
Risk: R22, R36/37/38
Safety: S26, S28A, S37

Xn



Assay: >99.5%

Guaranteed analysis

Aluminium (Al)	<1 ppm	Nickel (Ni)	<1 ppm
Arsenic (As)	<5 ppm	Potassium (K)	<20 ppm
Barium (Ba)	<1 ppm	Sodium (Na)	<20 ppm
Cadmium (Cd)	<1 ppm	Tin (Sn)	<2 ppm
Calcium (Ca)	<5 ppm	Titanium (Ti)	<1 ppm
Chromium (Cr)	<1 ppm	Total chloride (Cl)	<0.001%
Cobalt (Co)	<1 ppm	Total nitrogen (N)	<10 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm
Manganese (Mn)	<1 ppm	Fumaric acid	<0.5%

Lot analysis on the label.

Maleic acid extra pure

SLR



packaging	product code
500 g Plastic jar	M/1250/53

C₄H₄O₄
CAS: 110-16-7
MW: 116.08
Melting point: 134 to 138°C
Flash point: 127°C
HS-Nr: 29171990
EINECS: 203-742-5
Risk: R22, R36/37/38
Safety: S26, S28A, S37

Xn



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<100 ppm	Fumaric acid	<2%
Sodium (Na)	<100 ppm		

Maleic anhydride extra pure

SLR



packaging	product code
500 g Plastic jar	M/1300/53
10 kg Plastic drum	M/1300/68

C₄H₂O₃
CAS: 108-31-6
MW: 98.06
Density at 20°C: 1.48
Boiling point: 200°C
Melting point: 52 to 55°C
Flash point: 102°C
ADR/RID: 8/III
UN: 2215
HS-Nr: 29171400
EINECS: 203-571-6
Risk: R22, R34, R42/43
Safety: S22, S26, S36/37/39, S45

C



Assay: >99.5%

DL-Malic acid extra pure

SLR



packaging	product code
500 g Plastic jar	M/1350/53

C₄H₆O₅
CAS: 617-48-1
MW: 134.09
Melting point: 130 to 132°C
HS-Nr: 29181910
EINECS: 210-514-9
Risk: R22, R34, R42/43

Assay: >99%

Guaranteed analysis

Melting Point tested	131 to 132°C	Sulfate (SO ₄)	<0.02%
Residue after ignition	<0.03%	Total chloride (Cl)	<0.02%

Malonic acid extra pure

SLR

SpeciFied	packaging	product code
	100 g Plastic jar	M/1400/48
C ₃ H ₄ O ₄ CAS: 141-82-2 MW: 104.07 Melting point: 130-135°C	HS-Nr: 29171910 EINECS: 205-503-0 Risk: R22, R36/37/38 Safety: S26, S37/39	Xn
Assay: >99%		

Maltose monohydrate extra pure

SLR

SpeciFied	packaging	product code
	100 g Plastic jar	M/1450/48
	500 g Plastic jar	M/1450/53
C ₁₂ H ₂₂ O ₁₁ ·H ₂ O CAS: 6363-53-7 MW: 360.32	Melting point: 110°C HS-Nr: 17029010 EINECS: 200-716-5	
Guaranteed analysis		
IR Analysis Conform		

Manganese standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8045/05
500 mL Plastic bottle	J/8045/08
ADR/RID: 8/II UN: 2031 HS-Nr: 38220000	Risk: R34 Safety: S23, S26, S36, S45
Manufactured to a tolerance of ± 0.5%. See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.	

Manganese standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8291/08
ADR/RID: 8/II UN: 2031 HS-Nr: 38220000	Risk: R34 Safety: S23, S26, S36, S45
Manufactured to a tolerance of ± 0.5%. All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities. See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.	

Manganese standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8290/05
ADR/RID: 8/II UN: 2031 HS-Nr: 28416090	Risk: R34 Safety: S23, S26, S36, S45
Manufactured to a tolerance of ± 0.5%. All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities. See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.	

Manganese standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLMN22Y
	250 mL Plastic bottle	SPPLMN22T
	500 mL Plastic bottle	SPPLMN22X
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45		

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Manganese standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLMN23Y
	500 mL Plastic bottle	SPPLMN23X
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45		

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Manganese standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

SPX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPCLMN22Y
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45		

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Manganese(II) acetate tetrahydrate extra pure

SLR

SpeciFied	packaging	product code
	250 g Plastic jar	M/1700/50
C ₄ H ₆ O ₄ Mn·4H ₂ O CAS: 6156-78-1 MW: 245.09 Density at 20°C: 1.58 Boiling pressure: 760 mmHg	Melting point: >300°C Flash point: >130°C HS-Nr: 29152900 EINECS: 211-334-3 Safety: S24/25	
Assay: >99%		
Guaranteed analysis		
Iron (Fe) <100 ppm Total chloride (Cl) <0.005%		
Lead (Pb) <100 ppm Total sulphur (S) <100 ppm		

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Manganese(II) chloride tetrahydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	M/1850/53
1 kg Plastic jar	M/1850/60

MnCl ₂ ·4H ₂ O	HS-Nr: 28273985	
CAS: 13446-34-9	EINECS: 231-869-6	
MW: 197.91	Risk: R22, R48/22, R52	
Melting point: 58°C	Safety: S45, S61	

Assay: 98 to 102%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 6	Potassium (K)	<20 ppm
Substances		Sodium (Na)	<50 ppm
reducing KMnO ₄	<0.0005%	Total nitrogen (N)	<30 ppm
Calcium (Ca)	<50 ppm	Total phosphorus (P)	<50 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<100 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<20 ppm		

Typical analysis

Arsenic (As)	<5 ppm	Lithium (Li)	<2 ppm
Cadmium (Cd)	<2 ppm	Titanium (Ti)	<2 ppm
Chromium (Cr)	<2 ppm	Vanadium (V)	<2 ppm
Cobalt (Co)	<2 ppm		

Lot analysis on the label.

Manganese(II) chloride tetrahydrate extra pure

SLR



packaging	product code
250 g Plastic jar	M/1800/50
500 g Plastic jar	M/1800/53

MnCl ₂ ·4H ₂ O	HS-Nr: 28273985	
CAS: 13446-34-9	EINECS: 231-869-6	
MW: 197.91	Risk: R22, R48/22, R52	
Melting point: 58°C	Safety: S45, S61	

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<200 ppm
Potassium (K)	<50 ppm		

Manganese(IV) oxide extra pure, precipitated

SLR



packaging	product code
250 g Glass packaging	M/1665/50
500 g Glass packaging	M/1665/53

MnO ₂	ADR/RID: 5.1/II	
CAS: 1313-13-9	UN: 1479	
MW: 86.94	HS-Nr: 28201000	
Density at 20°C: 5.02	EINECS: 215-202-6	
Boiling point: DC°C	Risk: R20/22	
Melting point: 535 °C	Safety: S25	

Manganese(IV) oxide Technical, powder

packaging	product code
500 g Glass packaging	M/1660/53

MnO ₂	ADR/RID: 5.1/II	
CAS: 1313-13-9	UN: 1479	
MW: 86.94	HS-Nr: 28201000	
Density at 20°C: 5.02	EINECS: 215-202-6	
Boiling point: DC°C	Risk: R20/22	
Melting point: 535 °C	Safety: S25	

Manganese(II) sulfate tetrahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	M/2250/53
1 kg Plastic jar	M/2250/60

MnSO ₄ ·4H ₂ O	Melting point: 700°C	
CAS: 7785-87-7	HS-Nr: 28332990	
MW: 223.06	EINECS: 232-089-9	
Boiling point: 850°C	Risk: R48/20/22, R51/53	
Boiling pressure: 760 mmHg	Safety: S22, S61	

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<50 ppm		

Manganese(II) sulfate monohydrate pure, dried powder

packaging	product code
1 kg Plastic jar	M/2350/60

MnSO ₄ ·H ₂ O	Melting point: 700°C	
CAS: 10034-96-5	HS-Nr: 28332990	
MW: 169.02	EINECS: 232-089-9	
Boiling point: 850°C	Risk: R48/20/22, R51/53	
Boiling pressure: 760 mmHg	Safety: S22, S61	

Mannitol for analysis

Certified AR, Eur.Ph., BP



packaging	product code
500 g Plastic jar	M/2405/53

C ₆ H ₁₄ O ₆	Melting point: 167 to 170°C	
CAS: 69-65-8	HS-Nr: 29054300	
MW: 182.17	EINECS: 200-711-8	
Boiling pressure: 760 mmHg	Safety: S24/25	

Assay (GC): >99%

Guaranteed analysis

Acidity	<0.0008 meq/g	Magnesium (Mg)	<5 ppm
Specific rotation (α 20/D)	+23° to +24°	Potassium (K)	<10 ppm
Sugar reducer	<0.05%	Sodium (Na)	<50 ppm
Water	<0.5%	Total chloride (Cl)	<0.001 %
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Lithium (Li)	<1 ppm
Arsenic (As)	<5 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Tin (Sn)	<2 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Fisher Chemical products takes care of the environment!

Our packaging used for shipping is 100% recyclable and complies with UN regulations for your safety. Choosing for Fisher Chemical products therefore reduces your waste management cost without compromising safety and contributing to a cleaner environment.



Mannitol

extra pure

SLR



packaging	product code
500 g Plastic jar	M/2400/53

$C_6H_{14}O_6$
 CAS: 69-65-8
 MW: 182.17
 Boiling pressure: 760 mmHg
 Melting point: 167 to 170°C
 HS-Nr: 29054300
 EINECS: 200-711-8
 Safety: S24/25

Assay (GC): >98%

Guaranteed analysis

Sugar reducer	<0.2%	Potassium (K)	<50 ppm
Water	<0.5%	Sodium (Na)	<200 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<50 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<10 ppm

D(+)-Mannose

extra pure

SLR



packaging	product code
10 g Plastic jar	M/2420/45

$C_6H_{12}O_6$
 CAS: 3458-28-4
 MW: 180.16
 Melting point: 133°C
 HS-Nr: 29400000
 EINECS: 222-392-4
 Safety: S24/25

Guaranteed analysis

Loss on drying	<0.5%	Specific rotation (α 20/D)	+13.3° to +14.3°
Melting Point tested	129 to 131°C		
Residue after ignition	<0.1%	Lead (Pb)	<10 ppm

Marble chips

pure

packaging	product code
1 kg Plastic Jar	M/2450/60
3 kg Plastic Jar	M/2450/63

$CCaO_3$
 CAS: 471-34-1
 MW: 100.09
 Melting point: 825 °C
 HS-Nr: 25174100
 EINECS: 207-439-9
 Risk: R36/38
 Safety: S26, S37/39



MEK See Ethyl methyl ketone, page 102



D(+)-Melibiose monohydrate

pure

packaging	product code
10 g Plastic jar	M/2510/45

$C_{12}H_{22}O_{11} \cdot H_2O$
 CAS: 585-99-9
 MW: 360.32
 Melting point: 182 °C
 HS-Nr: 29400000
 EINECS: 209-568-6
 Safety: S24/25

Guaranteed analysis

Loss on drying	<6%	Specific rotation (α 20/D)	+141° to +143°
Residue after ignition	<0.2%	Lead (Pb)	<10 ppm

Menthol

extra pure, natural

SLR



packaging	product code
100 g Glass packaging	M/2550/48

$C_{10}H_{20}O$
 CAS: 2216-51-5
 MW: 156.28
 Boiling point: 212°C
 Boiling pressure: 760 mmHg
 Melting point: 41 to 43°C
 Flash point: 93°C
 HS-Nr: 29061100
 EINECS: 218-690-9
 Risk: R36/37/38, R41
 Safety: S26, S37/39



Guaranteed analysis

Melting Point tested	41 to 44°C	Specific rotation (α 20/D)	+50° to -49°
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Mercury standard metal solution 1000 ppm

for AAS, solution HNO_3 1M

packaging	product code
100 mL Plastic bottle	J/8047/05
500 mL Plastic bottle	J/8047/08

ADR/RID: 6.1(8)/II
 UN: 3289
 HS-Nr: 38220000
 Risk: R20/21/22, R33, R34, R50/53
 Safety: S13, S28, S45, S60, S61



Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury standard metal solution 1000 ppm

for ICP, solution HNO_3 1M

packaging	product code
500 mL Plastic bottle	J/8293/08

ADR/RID: 6.1(8)/II
 UN: 3289
 HS-Nr: 38220000
 Risk: R20/21/22, R33, R34, R50/53
 Safety: S13, S28, S45, S60, S61



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury standard metal solution 10 000 ppm

for ICP, solution HNO_3 1M

packaging	product code
100 mL Plastic bottle	J/8292/05

ADR/RID: 6.1(8)/II
 UN: 3289
 HS-Nr: 38220000
 Risk: R23/24/25, R33, R34, R50/53
 Safety: S13, S28, S45, S60, S61



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury standard metal solution 1000 ppm

for ICP solution in HNO_3 10%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLHG42Y
250 mL Plastic bottle	SPPLHG42T
500 mL Plastic bottle	SPPLHG42X

Density at 20°C: 1
 Risk: R34
 Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury standard metal solution 10 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLHG21AY
500 mL Plastic bottle	SPPLHG21AX
500 mL Plastic bottle	SPPLHG21X

Density at 20°C: 1
Risk: R34
Safety: S45S36/37/39, S26



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury (metal) extra pure

SLR



packaging	product code
250 g Plastic bottle	M/3650/50
1 kg Plastic bottle	M/3650/60

Hg
CAS: 7439-97-6
MW: 200.59
Density at 20°C: 13.54
Boiling point: 356.5°C
Boiling pressure: 760 mmHg
Melting point: -38.9°C

ADR/RID: 8/III
UN: 2809
HS-Nr: 38220000
EINECS: 231-106-7
Risk: R23, R33, R50/53
Safety: S7, S45, S60, S61



The price charged for this item is subject to alteration and will be that ruling at time of despatch.

Mercury standard metal solution 10 000 ppm for ICP solution in HNO₃ 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLHG43Y
500 mL Plastic bottle	SPPLHG43X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury (metal) pure, for polarography

packaging	product code
100 g Plastic bottle	M/3751/48

Hg
CAS: 7439-97-6
MW: 200.59
Density at 20°C: 13.54
Boiling point: 356.5°C
Boiling pressure: 760 mmHg
Melting point: -38.9°C

ADR/RID: 8/III
UN: 2809
HS-Nr: 28054090
EINECS: 231-106-7
Risk: R23, R33, R50/53
Safety: S7, S45, S60, S61



The price charged for this item is subject to alteration and will be that ruling at time of despatch.

Mercury standard metal solution 10 ppm for ICP-MS solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLHG21AY

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Mercury clean up kit pure

packaging	product code
1 part	M/3754/90

ADR/RID: 8/III
UN: 3260
HS-Nr: 29125000

Risk: 34
Safety: 26-45

The Mercury Clean-up kit is a compact safety pack used for cleaning up split mercury. It contains the special mercury absorber, safety gloves, brush, and scoop, and a spare container for holding the collected mercury prior to disposal. Full instructions are only included with each kit.

Mercury (metal) for analysis,

Certified AR



packaging	product code
100 g Plastic bottle	M/3750/48
250 g Plastic bottle	M/3750/50
500 g Plastic bottle	M/3750/53
1 kg Plastic bottle	M/3750/60

Hg
CAS: 7439-97-6
MW: 200.59
Density at 20°C: 13.54
Boiling point: 356.5°C
Boiling pressure: 760 mmHg
Melting point: -38.9°C

ADR/RID: 8/III
UN: 2809
HS-Nr: 38220000
EINECS: 231-106-7
Risk: R23, R33, R50/53
Safety: S7, S45, S60, S61



Assay: >99.99%

Guaranteed analysis

Cadmium (Cd) <0.2 ppm	Magnesium (Mg) <0.5 ppm
Calcium (Ca) <1 ppm	Nickel (Ni) <0.2 ppm
Copper (Cu) <0.5 ppm	Potassium (K) <1 ppm
Iron (Fe) <0.5 ppm	Sodium (Na) <2 ppm
Lead (Pb) <0.5 ppm	Total sulphur (S) <1 ppm
Lithium (Li) <0.2 ppm	Zinc (Zn) <0.5 ppm

The prices applied to mercury and derivatives vary with the price of the raw material.
Lot analysis on the label.

Mercury(II) acetate for analysis

Certified AR



packaging	product code
50 g Plastic jar	M/2652/47
250 g Plastic jar	M/2652/50

C₄H₆HgO₄
CAS: 1600-27-7
MW: 318.68
Melting point: 179 to 182°C
ADR/RID: 6.1/II
UN: 1629

HS-Nr: 28520000
EINECS: 216-491-1
Risk: R26/27/28, R33, R50/53
Safety: S13, S28A, S36, S45, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca) <20 ppm	Total chloride (Cl) <0.005 %
Copper (Cu) <5 ppm	Total nitrogen (N) <50 ppm
Iron (Fe) <10 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <10 ppm	Total silicon (Si) <20 ppm
Magnesium (Mg) <10 ppm	Total sulphur (S) <50 ppm
Potassium (K) <10 ppm	Zinc (Zn) <5 ppm
Sodium (Na) <20 ppm	

Typical analysis

Aluminium (Al) <2 ppm	Lithium (Li) <1 ppm
Barium (Ba) <1 ppm	Manganese (Mn) <1 ppm
Cadmium (Cd) <1 ppm	Nickel (Ni) <2 ppm
Chromium (Cr) <1 ppm	Titanium (Ti) <1 ppm
Cobalt (Co) <1 ppm	Vanadium (V) <1 ppm

Lot analysis on the label.

Mercury(II) acetate extra pure

SLR

Specified	packaging	product code
	250 g Plastic jar	M/2650/50
$C_4H_6HgO_4$ CAS: 1600-27-7 MW: 318.68 Melting point: 179 to 182°C ADR/RID: 6.1/II UN: 1629	HS-Nr: 28520000 EINECS: 216-491-1 Risk: R26/27/28, R33, R50/53 Safety: S13, S28A, S36, S45, S60, S61	
Assay: >98%		
Guaranteed analysis		
Calcium (Ca)<100 ppm	Sodium (Na)<100 ppm	
Copper (Cu)<50 ppm	Total chloride (Cl)<0.005%	
Iron (Fe)<50 ppm	Total phosphorus (P)<50 ppm	
Lead (Pb)<50 ppm	Total silicon (Si)<50 ppm	
Magnesium (Mg)<50 ppm	Total sulphur (S)<100 ppm	
Potassium (K)<50 ppm	Zinc (Zn)<50 ppm	

Mercury(I) chloride for analysis

Certified AR

AR	packaging	product code
	100 g Plastic jar	M/3450/48
Hg_2Cl_2 CAS: 10112-91-1 MW: 472.09 Density at 20°C: 7.15 Boiling pressure: 760 mmHg ADR/RID: 6.1/III	UN: 2025 HS-Nr: 28520000 EINECS: 233-307-5 Risk: R22, R36/37/38, R50/53 Safety: S13, S24/25, S46, S60, S61	
Assay: >99.5%		
Guaranteed analysis		
Aluminium (Al)<2 ppm	Manganese (Mn)<1 ppm	
Barium (Ba)<1 ppm	Nickel (Ni)<1 ppm	
Cadmium (Cd)<1 ppm	Potassium (K)<10 ppm	
Calcium (Ca)<20 ppm	Sodium (Na)<20 ppm	
Chromium (Cr)<1 ppm	Titanium (Ti)<1 ppm	
Cobalt (Co)<1 ppm	Total nitrogen (N)<20 ppm	
Copper (Cu)<5 ppm	Total phosphorus (P)<20 ppm	
Iron (Fe)<5 ppm	Total silicon (Si)<20 ppm	
Lead (Pb)<5 ppm	Total sulphur (S)<100 ppm	
Lithium (Li)<1 ppm	Vanadium (V)<1 ppm	
Magnesium (Mg)<5 ppm	Zinc (Zn)<10 ppm	

Lot analysis on the label.

Mercury(I) chloride extra pure

SLR

Specified	packaging	product code
	100 g Plastic jar	M/3400/48
Hg_2Cl_2 CAS: 10112-91-1 MW: 472.09 Density at 20°C: 7.15 Boiling pressure: 760 mmHg ADR/RID: 6.1/III	UN: 2025 HS-Nr: 28520000 EINECS: 233-307-5 Risk: R22, R36/37/38, R50/53 Safety: S13, S24/25, S46, S60, S61	
Assay: >99%		
Guaranteed analysis		
Calcium (Ca)<100 ppm	Sodium (Na)<100 ppm	
Copper (Cu)<50 ppm	Total phosphorus (P)<50 ppm	
Iron (Fe)<50 ppm	Total silicon (Si)<50 ppm	
Lead (Pb)<50 ppm	Total sulphur (S)<100 ppm	
Magnesium (Mg)<50 ppm	Zinc (Zn)<50 ppm	
Potassium (K)<50 ppm		

Mercury(II) chloride extra pure

SLR

Specified	packaging	product code
	100 g Plastic jar 250 g Plastic jar 500 g Plastic jar	M/2800/48 M/2800/50 M/2800/53
$HgCl_2$ CAS: 7487-94-7 MW: 271.5 Density at 20°C: 5.44 Boiling point: 302°C Boiling pressure: 760 mmHg Melting point: 277°C	ADR/RID: 6.1/II UN: 1624 HS-Nr: 28520000 EINECS: 231-299-8 Risk: R28, R34, R48/24/25, R50/53 Safety: S36/37/39, S45, S60, S61	
Assay: >98%		
Guaranteed analysis		
Calcium (Ca)<100 ppm	Sodium (Na)<100 ppm	
Copper (Cu)<50 ppm	Total phosphorus (P)<50 ppm	
Iron (Fe)<50 ppm	Total silicon (Si)<50 ppm	
Lead (Pb)<50 ppm	Total sulphur (S)<100 ppm	
Magnesium (Mg)<50 ppm	Zinc (Zn)<50 ppm	
Potassium (K)<50 ppm		

Mercury(II) iodide extra pure

SLR

Specified	packaging	product code
	25 g Plastic jar 100 g Plastic jar	M/2950/46 M/2950/48
HgI_2 CAS: 7774-29-0 MW: 454.39 Density at 20°C: 6.36 Boiling point: 354°C Boiling pressure: 760 mmHg Melting point: 259°C	ADR/RID: 6.1/II UN: 1638 HS-Nr: 28520000 EINECS: 231-873-8 Risk: R26/27/28, R33, R50/53 Safety: S13, S28A, S45, S60, S61	
Assay: >99%		

Mercury(I) nitrate dihydrate for analysis

Certified AR

AR	packaging	product code
	100 g Plastic jar	M/3550/48
$Hg_2(NO_3)_2 \cdot 2H_2O$ CAS: 7782-86-7 MW: 561.22 Melting point: 70°C ADR/RID: 6.1/II	UN: 1627 HS-Nr: 28520000 Risk: R26/27/28, R33, R50/53 Safety: S13, S45, S60, S61	
Assay: >98%		
Guaranteed analysis		
Aluminium (Al)<2 ppm	Manganese (Mn)<1 ppm	
Barium (Ba)<1 ppm	Nickel (Ni)<1 ppm	
Cadmium (Cd)<1 ppm	Potassium (K)<10 ppm	
Calcium (Ca)<20 ppm	Sodium (Na)<20 ppm	
Chromium (Cr)<1 ppm	Titanium (Ti)<1 ppm	
Cobalt (Co)<1 ppm	Total chloride (Cl)<0.005%	
Copper (Cu)<5 ppm	Total phosphorus (P)<20 ppm	
Iron (Fe)<5 ppm	Total silicon (Si)<20 ppm	
Lead (Pb)<5 ppm	Total sulphur (S)<50 ppm	
Lithium (Li)<1 ppm	Vanadium (V)<1 ppm	
Magnesium (Mg)<5 ppm	Zinc (Zn)<10 ppm	

Lot analysis on the label.

Fisher Chemical packaging

A convenient and complete range
for a cleaner and safer world!


Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266


Mercury(I) nitrate dihydrate
extra pure

SLR



packaging	product code
500 g Plastic jar	M/3500/53

Hg₂(NO₃)₂·2H₂O UN: 1627
 CAS: 7782-86-7 HS-Nr: 28520000
 MW: 561.22 Risk: R26/27/28, R33, R50/53
 Melting point: 70°C Safety: S13, S45, S60, S61
 ADR/RID: 6.1/II



Assay: >95%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<50 ppm

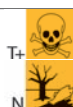
Mercury(II) nitrate dihydrate
for analysis

Certified AR



packaging	product code
100 g Plastic jar	M/3002/48

Hg(NO₃)₂·2H₂O UN: 1625
 CAS: 7783-34-8 HS-Nr: 28520000
 MW: 342.6 EINECS: 233-152-3
 Density at 20°C: 4.3 Risk: R26/27/28, R33, R50/53
 Melting point: 77 to 79°C Safety: S13, S28A, S45, S60, S61
 ADR/RID: 6.1/II



Assay: 59 to 61%

Guaranteed analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Potassium (K)	<10 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<20 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Total chloride (Cl)	<0.002%
Copper (Cu)	<5 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Mercury(II) nitrate dihydrate
extra pure

SLR



packaging	product code
100 g Plastic jar	M/3000/48

Hg(NO₃)₂·2H₂O UN: 1625
 CAS: 7783-34-8 HS-Nr: 29061100
 MW: 342.61 EINECS: 233-152-3
 Density at 20°C: 4.3 Risk: R26/27/28, R33, R50/53
 Melting point: 77 to 79°C Safety: S13, S28A, S45, S60, S61
 ADR/RID: 6.1/II



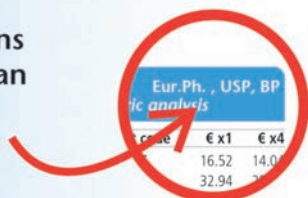
Assay: 58 to 62%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<50 ppm

The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266

Mercury(II) oxide yellow
pure

packaging	product code
100 g Plastic jar	M/3100/48

HgO ADR/RID: 6.1/II
 CAS: 21908-53-2 UN: 1641
 MW: 216.59 HS-Nr: 28520000
 Boiling pressure: 760 mmHg Risk: R26/27/28, R33, R50/53
 Melting point: 500 °C Safety: S13, S28A, S45, S60, S61



Assay: >99%

Guaranteed analysis

Total chloride (Cl) <0.2%

Mercury(II) oxide red
extra pure

SLR



packaging	product code
100 g Plastic jar	M/3050/48

HgO ADR/RID: 6.1/II
 CAS: 21908-53-2 UN: 1641
 MW: 216.59 HS-Nr: 28520000
 Boiling pressure: 760 mmHg Risk: R26/27/28, R33, R50/53
 Melting point: 500 °C Safety: S13, S28A, S45, S60, S61



Assay: >99%

Mercury(II) sulfate
extra pure

SLR



packaging	product code
100 g Plastic jar	M/3200/48
250 g Plastic jar	M/3200/50

HgSO₄ UN: 1645
 CAS: 7783-35-9 HS-Nr: 28520000
 MW: 296.65 EINECS: 231-992-5
 Density at 20°C: 6.47 Risk: R26/27/28, R33, R50/53
 ADR/RID: 6.1/II Safety: S13, S28A, S45, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<50 ppm		

Mercury(II) sulfate solution 20% w/v
pure

packaging	product code
500 mL Glass bottle	J/5100/08

ADR/RID: 6.1(8)/II Risk: R27/28, R33, R35, R50/53
 UN: 3289 Safety: S13, S28, S45, S60, S61
 HS-Nr: 38220000



Guaranteed analysis

Dichromate demand (ml FeSO) >2 mL Mercuric sulfate (II) 20%

Mercury(II) thiocyanate
extra pure

SLR



packaging	product code
25 g Plastic jar	M/3300/46

C₂HgN₂S₂ HS-Nr: 28520000
 CAS: 592-85-8 EINECS: 209-773-0
 MW: 316.75 Risk: R26/27/28, R33, R50/53
 Melting point: 165 °C Safety: S13, S28A, S36, S45, S60, S61
 ADR/RID: 6.1/II
 UN: 1646



Metaldehyde pure

packaging	product code
250 g Plastic jar	M/3800/50
(C ₂ H ₄ O) _n CAS: 9002-91-9 Melting point: 246°C Flash point: 50°C ADR/RID: 4.1/III	UN: 1332 HS-Nr: 29125000 EINECS: 200-836-8 Risk: R10, R22 Safety: S13, S25, S46
Guaranteed analysis IR Analysis Conform	



Metaphosphoric acid extra pure

SLR

packaging	product code
500 g Plastic jar	M/3851/53
HPO ₃ CAS: 37267-86-0 ADR/RID: 8/III UN: 3260	HS-Nr: 28092000 EINECS: 253-433-4 Risk: R34 Safety: S26, S36/37/39, S45
Guaranteed analysis Arsenic (As) <5 ppm Iron (Fe) <100 ppm Lead (Pb) <10 ppm Total chloride (Cl) <0.002%	



Methanesulfonic acid, sodium salt ion pair chromatography

Certified

packaging	product code
25 g Plastic jar	M/3876/46
CH ₃ SO ₃ Na CAS: 2386-57-4 MW: 118.09 HS-Nr: 29041000	EINECS: 219-203-2 Risk: R36/38 Safety: S26, S36, S45
Assay: >95% Lot analysis on the label.	



Methanol for HPLC-MS

Certified

packaging	product code
1 L Glass bottle	M/4062/15
2.5 L Glass bottle	M/4062/17
CH ₃ OH CAS: 67-56-1 MW: 32.04 Density at 20°C: 0.79 Boiling point: 64.7°C Boiling pressure: 760 mmHg Melting point: -98°C Flash point: 12°C	ADR/RID: 3(6.1)/II UN: 1230 HS-Nr: 29051100 EINECS: 200-659-6 Risk: R11, R23/24/25, R39/23/24/25 Safety: S7, S16, S36/37, S45
Assay (GC): >99.9%	



Guaranteed analysis		
Acidity <0.0002 meq/g	Copper (Cu) <0.01 ppm	
Alkalinity <0.00008 meq/g	Iron (Fe) <0.01 ppm	
LC-MS analysis Conform	Lead (Pb) <0.01 ppm	
Residue after evaporation <5 ppm	Magnesium (Mg) <0.01 ppm	
Water <0.02%	Manganese (Mn) <0.01 ppm	
Aluminium (Al) <0.02 ppm	Nickel (Ni) <0.01 ppm	
Barium (Ba) <0.01 ppm	Potassium (K) <0.01 ppm	
Cadmium (Cd) <0.01 ppm	Silver (Ag) <0.01 ppm	
Calcium (Ca) <0.05 ppm	Sodium (Na) <0.5 ppm	
Chromium (Cr) <0.01 ppm	Tin (Sn) <0.01 ppm	
Cobalt (Co) <0.01 ppm	Zinc (Zn) <0.01 ppm	

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
 230 nm <0.05 A.U. 260 nm <0.005 A.U.
 Gradient (max eluted peak). <0.5 mA.U.

Gradient analysis

Absorbance of the largest eluted peak < 0.05 mA.U.

Conditions :

Column: C18 Reverse Phase.
 Flow rate: 2 mL / min
 Wavelength 254 nm
 Absorbance range: 0-0.08 AU.

Solvent A: Water

Solvent B: Methanol

Gradient

Gradient: linear 95% /5% B 100% B during 20 min.

Lot analysis on the label.

This product has been tested on an LC-MS instrument to ensure suitability.

Filtered to 0.2 µm.

Methanol **NEW SPEC.** HPLC for gradient analysis

Certified Advanced HPLC

packaging	product code
1 L Coated Glass Bottle	M/4060/PB15
2.5 L Coated Glass Bottle	M/4060/PB17

CH ₃ OH CAS: 67-56-1 MW: 32.04 Density at 20°C: 0.79 Boiling point: 64.7°C Boiling pressure: 760 mmHg Melting point: -98°C	Flash point: 12°C ADR/RID: 3(6.1)/II HS-Nr: 38220000 Risk: R11, R23/24/25, R39/23/24/25 Safety: S7, S16, S36/37, S45
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Guaranteed analysis

Acidity <0.0002 meq/g Residue after evaporation <5 ppm
 Alkalinity <0.0002 meq/g Water <0.03%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
 210 nm <0.2 A.U. 250 nm <0.005 A.U.
 220 nm <0.1 A.U. Drift in the baseline <40 mA.U.
 230 nm <0.05 A.U. Gradient (max eluted peak). <0.1 mA.U.
 240 nm <0.01 A.U. 260 nm <0.005 A.U.

Absorbance of the largest eluted peak < 0.1 mA.U.

Conditions :

Column: C18 Reverse Phase.

Flow rate: 3 mL / min

Wavelength 220 nm

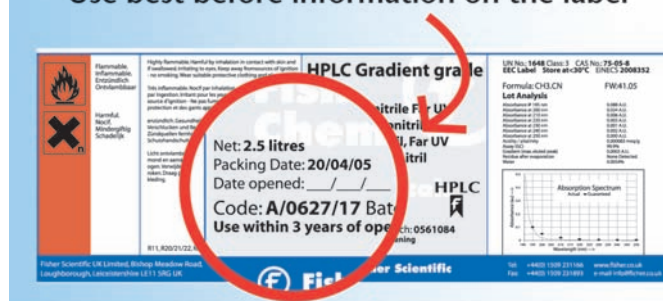
Solvent A: Water

Solvent B: Methanol

Gradient: 10 min at 30% solvent B followed by a linear gradient to 95% solvent B over 15 min.

Filtered to 0.2 µm.

Use best before information on the label



Methanol
HPLC for gradient analysis

Certified



packaging	product code
1 L Glass bottle	M/4058/15
2.5 L Glass bottle	M/4058/17
2.5 L Coated Glass Bottle	M/4058/PB17
5 L Aluminium drum	M/4058/21
25 L Metal drum	M/4058/DH25
200 L Stainless steel drum	M/4058/27SS

CH₃OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
EINECS: 200-659-6
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



Assay (GC): >99.9%

Guaranteed analysis

Acidity <0.0002 meq/g Residue after evaporation <5 ppm
Alkalinity <0.0002 meq/g Water <0.03%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

210 nm <0.2 A.U. 250 nm <0.005 A.U.
220 nm <0.1 A.U. Gradient (max eluted peak) <0.001 A.U.
230 nm <0.05 A.U. 260 nm <0.005 A.U.
240 nm <0.01 A.U.

Gradient analysis

Absorbance of the largest eluted peak < 0.004 A.U.

Conditions :

Column: C18 Reverse Phase.

Flow rate: 2 mL / min

Wavelength 254 nm

Absorbance range: 0-0.08 AU.

Solvent A: Water

Solvent B: Methanol

Gradient: linear 95% /5% B 100% B during 20 min.

Lot analysis on the label (except gradient analysis).

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Methanol
for HPLC

Certified



packaging	product code
1 L Glass bottle	M/4056/15
2.5 L Glass bottle	M/4056/17
2.5 L Coated Glass Bottle	M/4056/PB17
5 L Aluminium drum	M/4056/21
25 L Stainless steel drum	M/4056/25SS
25 L Metal drum	M/4056/DH25
200 L Stainless steel drum	M/4056/27SS

CH₃OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
EINECS: 200-659-6
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g Water <0.02%
Residue after evaporation <5 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

210 nm <0.2 A.U. 240 nm <0.02 A.U.
220 nm <0.1 A.U. 250 nm <0.005 A.U.
230 nm <0.05 A.U. 260 nm <0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Methanol
HPLC for fluorescence detection

Certified



packaging	product code
2.5 L Coated Glass Bottle	M/4057/PB17

CH₃OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 38220000
EINECS: 200-659-6
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



Assay (GC): >99.8%

Guaranteed analysis

Acidity <0.0002 meq/g Residue after evaporation <5 ppm
Alkalinity <0.0002 meq/g Water <0.02%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

210 nm <0.2 A.U. 250 nm <0.005 A.U.
220 nm <0.1 A.U. 260 nm <0.005 A.U.
230 nm <0.05 A.U. Fluorescence Conform
240 nm <0.01 A.U.

Excitation in the range 250-750nm produces no fluorescence emission greater than the solvents natural Raman signal at 350nm excitation. This is equivalent to the emission maximum of approximately 1ppb quinine sulfate.

Lot analysis on the label (excluding fluorescence scan).

Filtered to 0.2 µm.

Methanol
HPLC for electrochemical detection

Certified



packaging	product code
2.5 L Coated Glass Bottle	M/4059/PB17

CH₃OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
EINECS: 200-659-6
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



Assay (GC): >99.8%

Guaranteed analysis

Acidity <0.0002 meq/g Residue after evaporation <5 ppm
Alkalinity <0.0002 meq/g Water <0.02%
Electrochemical test Conform

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Methanol
for trace metal analysis

Primar



packaging	product code
2.5 L Glass bottle	M/4020/17

CH₃OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
EINECS: 200-659-6
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Manganese (Mn)	<0.005 ppm
Colour	<5 APHA	Molybdenum (Mo)	<0.005 ppm
Residue after evaporation	<2 ppm	Nickel (Ni)	<0.005 ppm
Water	<0.05%	Potassium (K)	<0.05 ppm
Aluminium (Al)	<0.02 ppm	Silver (Ag)	<0.005 ppm
Barium (Ba)	<0.005 ppm	Sodium (Na)	<0.2 ppm
Cadmium (Cd)	<0.005 ppm	Strontium (Sr)	<0.005 ppm
Calcium (Ca)	<0.05 ppm	Titanium (Ti)	<0.005 ppm
Chromium (Cr)	<0.005 ppm	Total phosphorus (P)	<0.02 ppm
Cobalt (Co)	<0.005 ppm	Total silicon (Si)	<0.02 ppm
Copper (Cu)	<0.01 ppm	Total sulphur (S)	<0.1 ppm
Iron (Fe)	<0.05 ppm	Vanadium (V)	<0.005 ppm
Lead (Pb)	<0.005 ppm	Zinc (Zn)	<0.01 ppm
Lithium (Li)	<0.005 ppm	Ethanol	<0.005%
Magnesium (Mg)	<0.02 ppm	Propan -2-ol	<0.002%

Methanol
for residue and pesticide analysis

Distol

packaging	product code
1 L Glass bottle	M/4053/15
2.5 L Glass bottle	M/4053/17

CH3OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
EINECS: 200-659-6
Risk: R11, R23/24/25, R39/23/24/25
Safety: S7, S16, S36/37, S45

Assay (GC): >99.9%

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.1%
GC (NPD) analysis	Conform		

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile: (1) 50°C, 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

Methanol
extra dry, for synthesis

packaging	product code
500 mL Glass bottle	M/4050/08
1 L Glass bottle	M/4050/15
2.5 L Glass bottle	M/4050/17
2.5 L Coated Glass Bottle	M/4050/PB17
25 L Metal drum	M/4050/25

<chem>CH3OH</chem> CAS: 67-56-1 MW: 32.04 Density at 20°C: 0.79 Boiling point: 64.7°C Boiling pressure: 760 mmHg Melting point: -98°C Flash point: 12°C	ADR/RID: 3(6.1)/II UN: 1230 HS-Nr: 29051100 EINECS: 200-659-6 Risk: R11, R23/24/25, R39/23/24/25 Safety: S7, S16, S36/37, S45
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Assay (GC): >99.9%

Guaranteed analysis

Residue after evaporation	<5 ppm	Water	<0.01%
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Reagent for anhydrous Karl Fischer titration and non-aqueous peptide sequencing.
see page 279 for suitable Tap & accessories.

Methanol
for analysis

Certified AR

packaging	product code
1 L Glass bottle	M/4000/15
1 L Coated Glass Bottle	M/4000/PB15
2.5 L Glass bottle	M/4000/17
2.5 L Coated Glass Bottle	M/4000/PB17
2.5 L Plastic bottle	M/4000/PC17
5 L Metal can	M/4000/21
25 L Metal drum	M/4000/25
25 L Plastic bottle	M/4000/PC25
25 L Metal drum	M/4000/DH25
200 L Metal drum	M/4000/27

<chem>CH3OH</chem> CAS: 67-56-1 MW: 32.04 Density at 20°C: 0.79 Boiling point: 64.7°C Boiling pressure: 760 mmHg Melting point: -98°C Flash point: 12°C	ADR/RID: 3(6.1)/II UN: 1230 HS-Nr: 29051100 EINECS: 200-659-6 Risk: R11, R23/24/25, R39/23/24/25 Safety: S7, S16, S36/37, S45
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Assay (GC): >99.9%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<0.02 ppm
Colour	<5 APHA	Magnesium (Mg)	<0.05 ppm
Residue after evaporation	<10 ppm	Potassium (K)	<0.5 ppm
Substances darkened by (H ₂ SO ₄)	<5 APHA	Sodium (Na)	<0.5 ppm
Substances reducing KMnO ₄	<0.00025%	Total phosphorus (P)	<0.05 ppm
Water	<0.05%	Total silicon (Si)	<0.05 ppm
Calcium (Ca)	<0.2 ppm	Total sulphur (S)	<0.1 ppm
Copper (Cu)	<0.02 ppm	Zinc (Zn)	<0.05 ppm
Iron (Fe)	<0.1 ppm	Ethanol	<0.05 %
		Propan-2-ol	<0.005 %

Typical analysis

Aluminium (Al)	<0.05 ppm	Molybdenum (Mo)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm
Manganese (Mn)	<0.01 ppm		

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Methanol
extra pure

SLR

packaging	product code
1 L Glass bottle	M/3950/15
2.5 L Glass bottle	M/3950/17
2.5 L Coated Glass Bottle	M/3950/PB17
2.5 L Plastic bottle	M/3950/PC17
5 L Metal can	M/3950/21
25 L Metal drum	M/3950/25
25 L Plastic drum	M/3950/PC25
25 L Metal drum	M/3950/DH25
200 L Metal drum	M/3950/27

<chem>CH3OH</chem> CAS: 67-56-1 MW: 32.04 Density at 20°C: 0.79 Boiling point: 64.7°C Boiling pressure: 760 mmHg Melting point: -98°C Flash point: 12°C	ADR/RID: 3(6.1)/II UN: 1230 HS-Nr: 38220000 EINECS: 200-659-6 Risk: R11, R23/24/25, R39/23/24/25 Safety: S7, S16, S36/37, S45
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Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Iron (Fe)	<5 ppm
Colour	<10 APHA	Lead (Pb)	<2 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<1 ppm
Substances darkened by (H ₂ SO ₄)	<20 APHA	Potassium (K)	<2 ppm
Substances reducing KMnO ₄	<0.001%	Sodium (Na)	<2 ppm
Water	<0.2%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<2 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<1 ppm
		Zinc (Zn)	<1 ppm

see page 279 for suitable Tap & accessories.

Methanol
Technical

packaging	product code
2.5 L Glass bottle	M/3900/17
2.5 L Coated Glass Bottle	M/3900/PB17
25 L Metal drum	M/3900/25
200 L Metal drum	M/3900/27

CH₃OH
CAS: 67-56-1
MW: 32.04
Density at 20°C: 0.79
Boiling point: 64.7°C
Boiling pressure: 760 mmHg
Melting point: -98°C
Flash point: 12°C

ADR/RID: 3(6.1)/II
UN: 1230
HS-Nr: 29051100
EINECS: 200-659-6
Risk: R11, R23/24/25, R39/23/24/25
Safety: S7, S16, S36/37, S45



Assay (GC): >98%

see page 279 for suitable Tap & accessories.

Methenamine *See Hexamine, page 113*L-Methionine
pure

packaging	product code
100 g Plastic jar	M/4065/48

CH₃S(CH₂)₂
CHNH₂COOH
MW: 149.21
HS-Nr: 29304000
EINECS: 200-562-9

CAS: 63-68-3

Assay: >95%

Methoxybenzene *See Anisole, page 32*2-Methoxyethanol
for analysis

Certified AR

packaging	product code
500 mL Glass bottle	M/4101/08
2.5 L Coated Glass Bottle	M/4101/PB17
25 L Metal drum	M/4101/25

C₃H₈O₂
CAS: 109-86-4
MW: 76.09
Density at 20°C: 0.96
Boiling point: 124°C
Boiling pressure: 760 mmHg
Melting point: -85°C

Flash point: 38°C
ADR/RID: 3/III
UN: 1188
HS-Nr: 29094400
EINECS: 203-713-7
Risk: R61, R10, R20/21/22, R60
Safety: S53, S45



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0008 meq/g	Magnesium (Mg)	<0.1 ppm
Colour	<10 APHA	Potassium (K)	<1 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<1 ppm
Substance consuming iodine	<0.005%	Total phosphorus (P)	<0.1 ppm
Water	<0.1%	Total silicon (Si)	<0.05 ppm
Calcium (Ca)	<0.5 ppm	Total sulphur (S)	<0.2 ppm
Copper (Cu)	<0.5 ppm	Zinc (Zn)	<1 ppm
Iron (Fe)	<1 ppm	Peroxide	<0.001 %
Lead (Pb)	<0.5 ppm		

Typical analysis

Aluminium (Al)	<0.2 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.05 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

2-Methoxyethanol
extra pure

SLR



packaging	product code
1 L Glass bottle	M/4100/15
2.5 L Coated Glass Bottle	M/4100/PB17

C₃H₈O₂
CAS: 109-86-4
MW: 76.09
Density at 20°C: 0.96
Boiling point: 124°C
Boiling pressure: 760 mmHg
Melting point: -85°C

Flash point: 38°C
ADR/RID: 3/III
UN: 1188
HS-Nr: 29094400
EINECS: 203-713-7
Risk: R61, R10, R20/21/22, R60
Safety: S53, S45



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<5 ppm
Water	<0.3%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<1 ppm
Iron (Fe)	<10 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<5 ppm		

2-Methoxyphenol *See Guaiacol, page 110*Methyl acetate
extra pure

SLR



packaging	product code
500 mL Glass bottle	M/4150/08
2.5 L Glass bottle	M/4150/17

C₃H₆O₂
CAS: 79-20-9
MW: 74.08
Density at 20°C: 0.93
Boiling point: 57.4°C
Boiling pressure: 760 mmHg
Melting point: -98°C

Flash point: -10°C
ADR/RID: 3/II
UN: 1231
HS-Nr: 29153930
EINECS: 201-185-7
Risk: R11, R36, R66, R67
Safety: S16, S26, S29, S33



Assay: >98%

Guaranteed analysis

Acidity	<0.0003 meq/g	Residue after evaporation	<100 ppm
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4-Methylamino phenol sulphate
extra pure

SLR



packaging	product code
250 g Plastic jar	M/5400/50

C₁₄H₁₈N₂O₂·H₂SO₄
CAS: 55-55-0
MW: 344.38
Density at 20°C: 1.58
Melting point: 260 °C
ADR/RID: 9/III

UN: 3077
HS-Nr: 29222900
EINECS: 200-237-1
Risk: R22, R43, R48/22, R50/53
Safety: S36/37, S46, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<50 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm

4-Methylaniline *See p-Toluidine, page 292*Methylbenzene *See Toluene, page 291*

Methyl benzoate
extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	M/4460/PB08
	2.5 L Coated Glass Bottle	M/4460/PB17
C ₈ H ₈ O ₂ CAS: 93-58-3 MW: 136.15 Density at 20°C: 1.07 to 1.09 Boiling point: 198 to 199°C Boiling pressure: 760 mmHg Assay (GC): >98.5%	Melting point: -12°C Flash point: 82°C HS-Nr: 38220000 EINECS: 202-259-7 Risk: R22	Xn

4-Methylbenzoic acid See p-Toluic acid, page 292



Methyl blue C.I. 42780
pure

packaging	product code
25 g Glass packaging	M/4475/46
HS-Nr: 38220000	
Guaranteed analysis	
IR Analysis	Conform

2-Methylbutan-2-ol
extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	M/4480/PB08
C ₅ H ₁₂ O CAS: 75-85-4 MW: 88.15 Density at 20°C: 0.8 Boiling point: 102°C Boiling pressure: 760 mmHg Melting point: -12°C Assay (GC): >98%	Flash point: 20°C ADR/RID: 3/II UN: 1105 HS-Nr: 38220000 EINECS: 200-908-9 Risk: R11, R20, R37/38 Safety: S46	F Xn

3-Methylbutyric acid See iso-Valeric acid, page 300



Methyl cyanide See Acetonitrile, page 7



Methylcyclohexane
extra pure

SLR

SpeciFied	packaging	product code
	2.5 L Glass bottle	M/4650/17
	200 L Metal drum	M/4650/27
C ₇ H ₁₄ CAS: 108-87-2 MW: 98.19 Density at 20°C: 0.769 to 0.773 Boiling point: 101°C Boiling pressure: 760 mmHg Melting point: -126.3°C Assay (GC): >98%	Flash point: -3°C ADR/RID: 3/II UN: 2296 HS-Nr: 29021980 EINECS: 203-624-3 Risk: R11, R38, R51/53, R65, R67 Safety: S9, S16, S33, S61, S62	F Xn

see page 279 for suitable Tap & accessories.

Methyldiglycol
extra pure

SLR

SpeciFied	packaging	product code
	1 L Glass bottle	M/4720/15
C ₃ H ₁₂ O ₃ CAS: 111-77-3 MW: 120.15 Density at 20°C: 1.015 to 1.022 Boiling point: 194°C Boiling pressure: 760 mmHg Assay (GC): >98%	Melting point: -70°C Flash point: 83°C HS-Nr: 29094918 EINECS: 203-906-6 Risk: R63 Safety: S36/37	Xn

Methylene blue C.I. 52015
pure, Biological stain

packaging		product code	
25 g	Glass packaging	M/P206/46	
C ₁₆ H ₁₈ ClN ₃ S	HS-Nr: 32041900	Xn 	
CAS: 61-73-4	EINECS: 200-515-2		
MW: 319.85	Risk: R22		
Melting point: 190 °C	Safety: S26, S36/37/39		
Suitable as a stain in electrophoresis. Especially sensitive for RNA.			

Methylene blue solid C.I. 52015
pure, Redox indicator

packaging		product code
10 g	Glass packaging	M/4870/45
25 g	Glass packaging	M/4870/46
C ₁₆ H ₁₈ ClN ₃ S	HS-Nr: 32041300	Xn 
CAS: 61-73-4	EINECS: 200-515-2	
MW: 319.85	Risk: R22	
Melting point: 190 °C	Safety: S26, S36/37/39	
Guaranteed analysis		
IR Analysis		Conform

Methylene blue dihydrate
extra pure, C.I. 52015

SLR

SpeciFied	packaging	product code
	100 g Glass packaging	M/4850/48
C ₁₆ H ₁₈ ClN ₃ S.2H ₂ O CAS: 61-73-4 MW: 355.89 Melting point: 190 °C	HS-Nr: 32041300 EINECS: 200-515-2 Risk: R22 Safety: S26, S36/37/39	Xn

Guaranteed analysis
Loss on drying 8 to 15% Lead (Pb) <20 ppm
Iron (Fe) <500 ppm

Methylene blue solution 0.015%
pure, Redox indicator

packaging	product code
500 mL Glass bottle	M/4870L/08
HS-Nr: 38220000	

Methylene iodide See Di-iodomethane, page 87



Methyl green C.I. 42585
pure, Biological stain

packaging	product code
25 g Glass packaging	M/P205/46
HS-Nr: 38220000	
Guaranteed analysis	
IR Analysis	Conform

Methyl hydroxybenzoate

See Methyl salicylate, page 168



Methyl iodide

See Iodomethane, page 130



Methyl isobutyl ketone

See 4-Methylpentan-2-one, page 166



Methyl methacrylate

extra pure, stabilized with quinol

SLR



packaging	product code
500 mL Glass bottle	M/4950/08
2.5 L Glass bottle	M/4950/17

C₅H₈O₂
CAS: 80-62-6
MW: 100.12
Density at 20°C: 0.93
Boiling point: 100°C
Boiling pressure: 760 mmHg
Melting point: -48°C

Flash point: 8°C
ADR/RID: 3/II
UN: 1247
HS-Nr: 38220000
EINECS: 201-297-1
Risk: R11, R37/38, R43
Safety: S24, S37, S46



Assay (GC): >99.5%

Guaranteed analysis

Water <0.1%

Methyl orange solid C.I. 13025

pure, indicator grade

packaging	product code
25 g Glass packaging	M/5000/46
100 g Glass packaging	M/5000/48

C₁₄H₁₄N₃NaO₃S
CAS: 547-58-0
MW: 327.34
Melting point: >300°C
ADR/RID: 6.1/III

UN: 3143
HS-Nr: 29270000
EINECS: 208-925-3
Risk: R25
Safety: S28A, S45



Guaranteed analysis

IR Analysis Conform

pH 2.9-4.6 red-orange to yellow-orange.

Methyl orange solution 0.04%

pure, indicator grade

packaging	product code
500 mL Glass bottle	M/5000L/08

UN: 1170
HS-Nr: 38220000
Risk: R10
Safety: S16, S24/25



Guaranteed analysis

At pH 20°C 6.5 to 8 Sensitivity (according to standard) Conform

pH 2.9-4.6 red-orange to yellow-orange.

Methyl orange-xylene cyanol FF

pure, indicator grade

packaging	product code
500 mL Glass bottle	M/5020L/08

ADR/RID: 8/III
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S16, S24/25



pH 2.9-4.6 red to green.

Solution methyl orange 0.2% / xylene cyanol 0.28%

2-Methylpentan-2.4-diol

extra pure

SLR



packaging	product code
500 mL Glass bottle	M/5050/08

C₆H₁₄O₂
CAS: 107-41-5
MW: 118.18
Density at 20°C: 0.92 to 0.925
Boiling point: 197°C
Boiling pressure: 760 mmHg

Melting point: -40°C
Flash point: 93°C
HS-Nr: 29053910
EINECS: 203-489-0
Risk: R36/38



Assay (GC): >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Refractive index 1.427 to 1.428

4-Methylpentan-2-one

for AAS

packaging	product code
500 mL Glass bottle	M/5080/08
2.5 L Glass bottle	M/5080/17

C₆H₁₂O
CAS: 108-10-1
MW: 100.16
Density at 20°C: 0.798 to 0.802
Boiling point: 117.4°C
Melting point: -84°C
Flash point: 14°C

ADR/RID: 3/II
UN: 1245
HS-Nr: 29141300
EINECS: 203-550-1
Risk: R11, R20, R36/37, R66
Safety: S9, S16, S23C, S29, S33



Guaranteed analysis

Calcium (Ca) <0.05 ppm	Magnesium (Mg) <0.01 ppm
Cobalt (Co) <0.02 ppm	Nickel (Ni) <0.02 ppm
Copper (Cu) <0.02 ppm	Potassium (K) <0.05 ppm
Iron (Fe) <0.05 ppm	Sodium (Na) <0.1 ppm
Lead (Pb) <0.02 ppm	Zinc (Zn) <0.1 ppm

4-Methylpentan-2-one

for analysis

Certified AR



packaging	product code
1 L Glass bottle	M/5085/15
1 L Coated Glass Bottle	M/5085/PB15
2.5 L Glass bottle	M/5085/17
2.5 L Coated Glass Bottle	M/5085/PB17
200 L Metal drum	M/5085/27

C₆H₁₂O
CAS: 108-10-1
MW: 100.16
Density at 20°C: 0.8
Boiling point: 117.4°C
Boiling pressure: 760 mmHg
Melting point: -84°C

Flash point: 14°C
ADR/RID: 3/II
UN: 1245
HS-Nr: 29141300
EINECS: 203-550-1
Risk: R11, R20, R36/37, R66
Safety: S9, S16, S29



Assay (GC): >99%

Guaranteed analysis

Acetone <0.1%	Magnesium (Mg) <0.05 ppm
Acidity / Alkalinity <0.0002 meq/g	Potassium (K) <0.1 ppm
Butanone <0.2%	Sodium (Na) <0.5 ppm
Colour <10 APHA	Total phosphorus (P) <0.05 ppm
Residue after evaporation <10 ppm	Total silicon (Si) <0.02 ppm
Water <0.1%	Total sulphur (S) <0.1 ppm
Calcium (Ca) <0.5 ppm	Zinc (Zn) <0.05 ppm
Copper (Cu) <0.02 ppm	2-Hexanol <0.2 %
Iron (Fe) <0.1 ppm	4-methyl -3-penten -2-one <0.05 %
Lead (Pb) <0.02 ppm	Pentan -2-one <0.2 %

Typical analysis

Aluminium (Al) <0.1 ppm	Manganese (Mn) <0.01 ppm
Barium (Ba) <0.01 ppm	Molybdenum (Mo) <0.01 ppm
Cadmium (Cd) <0.01 ppm	Nickel (Ni) <0.01 ppm
Chromium (Cr) <0.01 ppm	Strontium (Sr) <0.01 ppm
Cobalt (Co) <0.01 ppm	Titanium (Ti) <0.01 ppm
Lithium (Li) <0.01 ppm	Vanadium (V) <0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

4-Methylpentan-2-one

extra pure

SLR

Specified

packaging	product code
500 mL Glass bottle	M/5078/08
500 mL Coated Glass Bottle	M/5078/PB08
1 L Glass bottle	M/5078/15
2.5 L Glass bottle	M/5078/17
2.5 L Coated Glass Bottle	M/5078/PB17
5 L Metal can	M/5078/21
25 L Metal drum	M/5078/25

$C_6H_{12}O$
CAS: 108-10-1
MW: 100.16
Density at 20°C: 0.8
Boiling point: 117.4°C
Boiling pressure: 760 mmHg
Melting point: -84°C

Flash point: 14°C
ADR/RID: 3/II
UN: 1245
HS-Nr: 29141300
EINECS: 203-550-1
Risk: R11, R20, R36/37, R66
Safety: S9, S16, S29



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<10 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<2 ppm
Water	<0.2%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<1 ppm
Lead (Pb)	<2 ppm		

see page 279 for suitable Tap & accessories.

Methyl red solid water soluble

pure, indicator grade

packaging	product code
5 g Glass packaging	M/5170/44
100 g Glass packaging	M/5170/48

$C_{15}H_{15}N_3O_2$
CAS: 493-52-7
MW: 269.3
Melting point: 178 to 182°C

HS-Nr: 29270000
EINECS: 212-682-9
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

pH 4.2-6.3 red to yellow.

Methyl red solution 0.01% water soluble

pure, indicator grade

packaging	product code
500 mL Glass bottle	M/5171L/08

ADR/RID: 3/III
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S16, S24/25



Guaranteed analysis

At pH 20°C 1.95 to 2.05

pH 4.2-6.3 red to yellow.

In solution in water 81%, ethanol 15% and methanol 4%.

2-Methylphenol

See o-Cresol, page 76



4-Methylphenol

See p-Cresol, page 76



3-Methylphenol

See m-Cresol, page 76



2-Methyl-2-propanol

See tert-Butyl alcohol, page 50



2-Methylpropyl acetate

See iso-Butyl acetate, page 51



Methyl propyl carbinol

See Pentan-2-ol, page 185



N-Methylpyrrolidone

See 1-Methyl-2-pyrrolidinone, page 168



Methyl red spirit soluble C.I. 13020

pure, indicator grade

packaging	product code
10 g Glass packaging	M/5150/45
25 g Glass packaging	M/5150/46

$C_{15}H_{15}N_3O_2$
CAS: 493-52-7
MW: 269.3
Melting point: 178 to 182°C

HS-Nr: 38220000
EINECS: 207-776-1
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

pH 4.2-6.3 red to yellow.

Methyl violet 2B (basic violet) C.I. 42535

pure, indicator grade

packaging	product code
10 g Glass packaging	M/5345/45

$C_{24}H_{28}ClN_3$
CAS: 8004-87-3
MW: 393.95
Melting point: 137 °C
ADR/RID: 6.1/III

UN: 3077
HS-Nr: 32041300
Risk: R25, R40, R41
Safety: S53, S45



Guaranteed analysis

IR Analysis Conform

Methyl violet (crystal violet) C.I. 42555

pure, indicator grade

packaging	product code
100 g Glass packaging	M/5350/48

CAS: 548-62-9
ADR/RID: 6.1/III
UN: 3077
HS-Nr: 32041300

EINECS: 208-953-6
Risk: R25, R40, R41
Safety: S53, S45



N

Methyl violet solid (crystal violet) C.I. 42555
pure, indicator grade

packaging	product code
10 g Glass Jar	M/5370/45
25 g Glass Jar	M/5370/46

C ₂₅ H ₃₀ ClN ₃ CAS: 548-62-9 MW: 407.97 Melting point: 215 °C ADR/RID: 6.1/III	UN: 3077 HS-Nr: 32041300 EINECS: 208-953-6 Risk: R45, R22, R41, R50/53 Safety: S53, S45, S60, S61	Xn N
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pH 0.1-3.2 yellow to purple.

Methyl violet 1% aqueous solution (crystal violet) C.I. 42555
pure, indicator grade

packaging	product code
500 mL Glass bottle	M/5370L/08

HS-Nr: 38220000

Guaranteed analysis

At pH 20°C 3 to 5

pH 0.1-3.2 yellow to purple.

1-Methyl-2-pyrrolidinone
for analysis

Certified AR

packaging	product code
500 mL Glass bottle	M/5125/08

C ₅ H ₉ NO CAS: 872-50-4 MW: 99.13 Density at 20°C: 1.03 Boiling point: 202°C Boiling pressure: 760 mmHg	Melting point: -24°C Flash point: 91°C HS-Nr: 29337900 EINECS: 212-828-1 Risk: R61, R36/37/38 Safety: S53, S26, S37/39, S45	T
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Assay (GC): >99.7%

Guaranteed analysis

Residue after ignition	<0.01%	Potassium (K)	<1 ppm
Water	<0.05%	Sodium (Na)	<5 ppm
Calcium (Ca)	<1 ppm	Total phosphorus (P)	<0.5 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<0.1 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<1 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<0.2 ppm
Magnesium (Mg)	<0.5 ppm		

Typical analysis

Aluminium (Al)	<0.5 ppm	Manganese (Mn)	<0.1 ppm
Barium (Ba)	<0.1 ppm	Molybdenum (Mo)	<0.1 ppm
Cadmium (Cd)	<0.1 ppm	Nickel (Ni)	<0.1 ppm
Chromium (Cr)	<0.1 ppm	Strontium (Sr)	<0.1 ppm
Cobalt (Co)	<0.1 ppm	Titanium (Ti)	<0.1 ppm
Lithium (Li)	<0.1 ppm	Vanadium (V)	<0.1 ppm

Lot analysis on the label.

1-Methyl-2-pyrrolidinone
extra pure

SLR

packaging	product code
100 mL Glass bottle	M/5120/05
500 mL Glass bottle	M/5120/08

C ₅ H ₉ NO CAS: 872-50-4 MW: 99.13 Density at 20°C: 1.03 Boiling point: 202°C Boiling pressure: 760 mmHg	Melting point: -24°C Flash point: 91°C HS-Nr: 29337900 EINECS: 212-828-1 Risk: R61, R36/37/38 Safety: S53, S26, S37/39, S45	T
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Assay (GC): >99%

Guaranteed analysis

Residue after ignition	<0.1%	Potassium (K)	<5 ppm
Water	<0.2%	Sodium (Na)	<20 ppm
Calcium (Ca)	<5 ppm	Total phosphorus (P)	<2 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<2 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<2 ppm		

Methyl salicylate
extra pure

SLR

packaging	product code
500 mL Coated Glass Bottle	M/5200/PB08
2.5 L Coated Glass Bottle	M/5200/PB17

C ₈ H ₈ O ₃ CAS: 119-36-8 MW: 152.15 Density at 20°C: 1.18 Boiling point: 222°C Boiling pressure: 760 mmHg	Melting point: -8 to 7°C Flash point: 110°C HS-Nr: 29182310 EINECS: 204-317-7 Risk: R22, R36/38 Safety: S24/25	Xn
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Assay (GC): >99%

Guaranteed analysis

Acidity <0.01 meq/g

MIBK See 4-Methylpentan-2-one, page 166

Millon's reagent
pure

packaging	product code
100 mL Coated Glass Bottle	J/5300/PB05

ADR/RID: 6.1/II UN: 2024 HS-Nr: 38220000	Risk: R26/27/28, R33, R35, R50/53 Safety: S28, S45, S60, S61	C N T+
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Mohr's salt

See Ammonium Iron(II) Sulfate hexahydrate, page 26

Molecular sieve type 13X (10A)
pure

packaging	product code
500 g Plastic jar	MS/1070/53

CAS: 1318-02-1

HS-Nr: 38220000

Particle size 1.6-2.5 mm.

Density 0.71 g / mL.

Molecular sieve type 13X (10A)
pure

packaging	product code
500 g Plastic jar	MS/1060/53

CAS: 1318-02-1

HS-Nr: 38220000

Porosity 10 Angstroms.

Particle size 2.5-5.0 mm.

Density 0.70 g / mL.

Molecular sieve type 4A
pure

packaging	product code
500 g Plastic jar	MS/1030/53
2.5 kg Plastic jar	MS/1030/62

CAS: 1318-02-1

HS-Nr: 38220000

Particle size 1.6-2.5 mm.

Density 0.74 g / mL.

Molecular sieve type 4A pure

packaging	product code
500 g Plastic jar	MS/1020/53
2.5 kg Plastic jar	MS/1020/62

CAS: 1318-02-1
HS-Nr: 38220000

Porosity 4 Angstroms.
Particle size 2.5-5.0 mm.
Density 0.72 g / mL.

Molecular sieve type 3A pure

packaging	product code
250 g Plastic jar	MS/1010/50
500 g Plastic jar	MS/1010/53

CAS: 1318-02-1
HS-Nr: 25120000

Porosity 3 Angstroms.
Density 0.74 g / mL.
Particle size 1.6-2.5 mm.

Molybdenum standard metal solution 1000 ppm for AAS, solution HNO₃ 0.1M

packaging	product code
100 mL Plastic bottle	J/8050/05
500 mL Plastic bottle	J/8050/08

HS-Nr: 81021000

Guaranteed analysis

Value between 0.995 to 1.005

Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Molybdenum standard metal solution 1000 ppm for ICP, solution NH₃ 0.1M

packaging	product code
500 mL Plastic bottle	J/8296/08

HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Molybdenum standard metal solution 10 000 ppm for ICP, solution NH₃ 1%

packaging	product code
100 mL Plastic bottle	J/8294/05

HS-Nr: 38220000

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Molybdenum standard metal solution 1000 ppm for ICP solution in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLM092Y
250 mL Plastic bottle	SPPLM092T
500 mL Plastic bottle	SPPLM092X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Molybdenum standard metal solution 10 000 ppm for ICP solution in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLM093Y
500 mL Plastic bottle	SPPLM093X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Molybdenum standard metal solution 1000 ppm for ICP-MS solution in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLM092Y

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

dodeca-Molybdophosphoric acid pure

packaging	product code
100 g Plastic jar	M/5650/48

H₃Mo₁₂O₄₀P₄·xH₂O
CAS: 51429-74-4
MW: 1825.25
ADR/RID: 8/III
UN: 3085
HS-Nr: 28111900
Risk: R34
Safety: S26, S36/37/39, S45

Guaranteed analysis

Iron (Fe) <200 ppm Total sulphur (S) <1000 ppm
Lead (Pb) <100 ppm

MonoFax 057 surfactant pure, (mono and di-phosphate esters)

packaging	product code
500 mL Coated Glass Bottle	M/5715/PB08

ADR/RID: 8/III
UN: 1760
HS-Nr: 34021300
Risk: R22, R36/38
Safety: S26



Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Mordant Black 11 See Eriochrome black T, page 95



Mordant Blue 3 See Eriochrome cyanine R, page 95



Mordant Red 11 See Alizarin C.I. 58000, page 11



Morpholine
pure

packaging	product code
500 mL Coated Glass Bottle	M/5750/PB08
<chem>C4H9NO</chem> CAS: 110-91-8 MW: 87.12 Density at 20°C: 0.99 Boiling point: 129°C Boiling pressure: 760 mmHg Melting point: -5°C Flash point: 38°C ADR/RID: 3(8)/I UN: 2054 HS-Nr: 29349990 EINECS: 203-815-1 Risk: R10, R20/21/22, R34 Safety: S23, S36, S45 Assay (GC): >99%	

2-(N-Morpholino)ethane-sulfonic acid
extra pure

SLR

packaging	product code
100 g Plastic Jar	M/5760/48
<chem>C6H13NO4S.H2O</chem> CAS: 145224-94-8 MW: 213.25 Melting point: >300°C HS-Nr: 29349990 Safety: S24/25 Assay: >99% Guaranteed analysis Residue after ignition <0.2% Lead (Pb) <10 ppm Iron (Fe) <5 ppm Sulfate (SO ₄) <0.01%	

Naphtha solvent
Technical

packaging	product code
2.5 L Coated Glass Bottle	N/0050/PB17
25 L Metal drum	N/0050/25
CAS: 8030-30-6 Density at 20°C: 0.8 to 0.9 ADR/RID: 3/III UN: 1268 HS-Nr: 29159000 EINECS: 232-443-2 Risk: R10, R20/21, R38 Safety: S24/25, S16, S23, S29, S33	



see page 279 for suitable Tap & accessories.

Naphthalene
extra pure

SLR

packaging	product code
500 g Glass packaging	N/0150/53
<chem>C10H8</chem> CAS: 91-20-3 MW: 128.17 Density at 20°C: 0.99 Boiling point: 218°C Boiling pressure: 760 mmHg Melting point: 79 to 83°C Flash point: 78°C ADR/RID: 4.1/III UN: 1334 HS-Nr: 38220000 EINECS: 202-049-5 Risk: R22, R40, R50/53 Safety: S36/37, S46, S60, S61 Assay (GC): >99% Guaranteed analysis Melting Point tested 79.6 to 80.2°C Residue after evaporation <500 ppm	

Naphthalene black 10B
Technical

packaging	product code
10 g Glass Jar	N/0211/45
<chem>C22H14N6Na2O3S2</chem> CAS: 1064-48-8 MW: 616.48 HS-Nr: 32041200 EINECS: 213-903-1 Risk: R20/21, R33	

Naphthalene-2-sulfonic acid sodium salt
for ion pair chromatography

packaging	product code
25 g Plastic jar	N/0216/46
<chem>C10H7NaO3S</chem> CAS: 532-02-5 MW: 230.22 HS-Nr: 29041000 EINECS: 208-523-8 Risk: R36/37/38 Safety: S26, S37/39 Guaranteed analysis IR Analysis Conform	

1,2-Naphthaquinone-4-sulfonic acid sodium salt
pure

packaging	product code
25 g Glass packaging	N/0230/46
<chem>C10H5NaO5S</chem> CAS: 521-24-4 MW: 260.19 Melting point: 289 °C HS-Nr: 29146900 EINECS: 208-308-9 Risk: R36/37/38 Safety: S26, S37/39 Guaranteed analysis IR Analysis Conform	

1-Naphthol
for analysis

Certified AR



packaging	product code
100 g Glass packaging	N/0350/48
<chem>C10H8O</chem> CAS: 90-15-3 MW: 144.17 Boiling point: 278 to 280°C Boiling pressure: 760 mmHg Melting point: 95 to 97°C Flash point: 125°C ADR/RID: 6.1/III UN: 2811 HS-Nr: 29071500 EINECS: 201-969-4 Risk: R21/22, R37/38, R41 Safety: S22, S26, S37/39 Assay (GC): >99% Guaranteed analysis Insoluble matter (in alcohol) <0.01% Nickel (Ni) <2 ppm Aluminium (Al) <2 ppm Potassium (K) <10 ppm Barium (Ba) <2 ppm Sodium (Na) <20 ppm Cadmium (Cd) <2 ppm Titanium (Ti) <2 ppm Calcium (Ca) <20 ppm Total chloride (Cl) <0.005% Chromium (Cr) <2 ppm Total phosphorus (P) <5 ppm Cobalt (Co) <2 ppm Total silicon (Si) <2 ppm Copper (Cu) <5 ppm Total sulphur (S) <10 ppm Iron (Fe) <5 ppm Vanadium (V) <2 ppm Lead (Pb) <5 ppm Zinc (Zn) <5 ppm Lithium (Li) <2 ppm 2-Naphthol <0.5% Magnesium (Mg) <10 ppm Naphthalene <0.1% Manganese (Mn) <2 ppm	

1-Naphthol
extra pure

SLR

packaging	product code
250 g Glass packaging	N/0300/50
<chem>C10H8O</chem> CAS: 90-15-3 MW: 144.17 Boiling point: 278 to 280°C Boiling pressure: 760 mmHg Melting point: 95 to 97°C Flash point: 125°C ADR/RID: 6.1/III UN: 2811 HS-Nr: 29071500 EINECS: 201-969-4 Risk: R21/22, R37/38, R41 Safety: S22, S26, S37/39 Assay (GC): >97% Guaranteed analysis Calcium (Ca) <100 ppm Sodium (Na) <100 ppm Copper (Cu) <50 ppm Total chloride (Cl) <0.02% Iron (Fe) <50 ppm Total phosphorus (P) <20 ppm Lead (Pb) <50 ppm Total silicon (Si) <10 ppm Magnesium (Mg) <50 ppm Total sulphur (S) <50 ppm Potassium (K) <50 ppm Zinc (Zn) <20 ppm	



2-Naphthol

extra pure

SLR

		packaging	product code
		500 g Plastic jar	N/0400/53
C ₁₀ H ₈ O	ADR/RID: 6.1/I		
CAS: 135-19-3	UN: 2811		
MW: 144.17	HS-Nr: 29071500		
Boiling point: 285 to 286°C	EINECS: 205-182-7		
Boiling pressure: 760 mmHg	Risk: R20/22, R50		
Melting point: 120 to 124°C	Safety: S24/25, S61		
Flash point: 160°C			
Assay (GC): >97%			
Guaranteed analysis			
Calcium (Ca)	<100 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<10 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<50 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm



p-Naphtholbenzein

pure, indicator grade

SpeciFied		packaging	product code
		25 g Glass packaging	N/0500/46
C ₂₂ H ₁₈ O ₂	HS-Nr: 29072900		
CAS: 145-50-6	EINECS: 205-656-3		
MW: 374.44	Safety: S24/25		

pH 8.5-9.8 yellow to green.

1-Naphthylamine-7-sulfonic acid

extra pure

SLR

SpeciFied		packaging	product code
		100 g Plastic jar	N/0910/48
C ₁₀ H ₆ (NH ₂).SO ₃ H	HS-Nr: 29214500	Xi 	
CAS: 119-28-8	EINECS: 204-311-4		
MW: 223.25	Risk: R36/38		
ADR/RID: 8/III	Safety: S22		
UN: 2585			
Guaranteed analysis			
IR Analysis		Conform	



N-1-Naphthylethylene diamine dihydrochloride

Certified AR for analysis

	packaging		product code	
	5 g	Glass packaging	N/1252/44	
	10 g	Glass packaging	N/1252/45	
C ₁₂ H ₁₄ N ₂ ·2HCl	HS-Nr: 29291090			
CAS: 1465-25-4	EINECS: 215-981-2			
MW: 259.18	Risk: R36/37/38			
Melting point: 200 °C	Safety: S26, S37/39			
Assay: >99%				
Guaranteed analysis				
Residue after ignition		<0.05%	Sensitivity to sulphanilamide	Conform
Lot analysis on the label.				



N-1-Naphthylethylene diamine dihydrochloride

extra pure

SLR

SpeciFied		packaging	product code
		10 g Glass packaging	N/1250/45
		100 g Glass packaging	N/1250/48
C ₁₂ H ₁₄ N ₂ ·2HCl	HS-Nr: 29215900	Xi 	
CAS: 1465-25-4	EINECS: 215-981-2		
MW: 259.18	Risk: R36/37/38		
Melting point: 200 °C	Safety: S26, S37/39		
Assay: >97%			
Guaranteed analysis			
Sensitivity to sulphanilamide Conform			



Neodymium standard metal solution 1000 ppm

for ICP solution in HNO₃ 2%, NIST certified

SPEX CertiPrep		packaging	product code
		100 mL Plastic bottle	SPPLND22Y
		500 mL Plastic bottle	SPPLND22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Nessler's solution

pure, for detection and determination of ammonia and ammonium salts

packaging		product code
500 mL	Coated Glass Bottle	J/5500/PB08
1 L	Coated Glass Bottle	J/5500/PB15
ADR/RID: 8(6.1)		Risk: R25, R48/20/21, R33, R35, R52/53 Safety: S28, S45, S60, S61
UN: 2922		
HS-Nr: 38220000		



Neutral red C.I 50040

pure, indicator grade

packaging		product code
5 g	Glass packaging	N/1270/44
C ₁₅ H ₁₇ ClN ₄	HS-Nr: 32041300	
CAS: 553-24-2	EINECS: 209-035-8	
MW: 288.77	Safety: S24/25	
Melting point: 290 °C		
Guaranteed analysis		
IR Analysis		Conform

Nickel standard metal solution 1000 ppm

for AAS, solution HNO₃ 1M

		packaging	product code
		100 mL Plastic bottle	J/8055/05
		500 mL Plastic bottle	J/8055/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45

Manufactured to a tolerance of ± 0.5%.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Nickel standard metal solution 1000 ppm

for ICP, solution HNO₃ 1M

		packaging	product code
		500 mL Plastic bottle	J/8297/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45

Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Nickel standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8295/05

ADR/RID: 8/II Risk: R34
UN: 2031 Safety: S23, S26, S36, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Nickel standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLNI22Y
250 mL Plastic bottle	SPPLNI22T
500 mL Plastic bottle	SPPLNI22X

Density at 20°C: 1.02
Risk: R36/38
Safety: S26

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Nickel standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLNI23Y
500 mL Plastic bottle	SPPLNI23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Nickel standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLNI22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Nickel metal powder extra pure

packaging	product code
250 g Plastic jar	N/1300/50

Ni
CAS: 7440-02-0
MW: 58.7
Density at 20°C: 8.9
Boiling point: 2732 to 2837°C
Boiling pressure: 760 mmHg
Melting point: 1455°C

ADR/RID: 4.1/II
UN: 3089
HS-Nr: 75040000
EINECS: 231-111-4
Risk: R40, R43
Safety: S22, S36

Nickel metal sheet pure, about 0.5 mm

packaging	product code
100 g Leaf	N/1370/48
250 g Leaf	N/1370/50

Ni
CAS: 7440-02-0
MW: 58.7
Density at 20°C: 8.9
Boiling point: 2732 to 2837°C
Boiling pressure: 760 mmHg
Melting point: 1455°C

HS-Nr: 38220000
EINECS: 231-111-4
Risk: R40, R43
Safety: S22, S36

Nickel metal pellets pure

packaging	product code
250 g Plastic jar	N/1320/50

Ni
CAS: 7440-02-0
MW: 58.7
Density at 20°C: 8.9
Boiling point: 2732 to 2837°C
Boiling pressure: 760 mmHg
Melting point: 1455°C

ADR/RID: 4.3/III
UN: 2813
HS-Nr: 38220000
EINECS: 231-111-4
Risk: R40, R43
Safety: S22, S36

Nickel-aluminium alloy pure, powder for preparing catalytic nickel

packaging	product code
250 g Plastic Jar	N/1460/50

UN: 2813
HS-Nr: 75040000
Risk: R40, R43
Safety: S22, S36

Nickel(II) carbonate tetrahydrate extra pure

packaging	product code
250 g Plastic jar	N/1550/50
500 g Plastic jar	N/1550/53

approx. CH₄Ni₃O₇·4H₂O
CAS: 12607-70-4
HS-Nr: 28369919

EINECS: 235-715-9
Risk: R20/22, R40, R43, R50/S3
Safety: S22, S36/37, S60, S61

Nickel(II) chloride hexahydrate for analysis

Certified AR

packaging	product code
250 g Plastic jar	N/1650/50
1 kg Plastic jar	N/1650/60

NiCl₂·6H₂O
CAS: 7791-20-0
MW: 237.71
ADR/RID: 6.1/III
UN: 3288

HS-Nr: 28369919
EINECS: 231-743-0
Risk: R45, R25, R43, R50/S3
Safety: S53, S24, S29, S37, S45, S61

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	3 to 7	Magnesium (Mg)	<20 ppm
Aluminium (Al)	<0.001%	Potassium (K)	<50 ppm
Barium (Ba)	<0.001%	Silver (Ag)	<0.001%
Cadmium (Cd)	<0.001%	Sodium (Na)	<100 ppm
Calcium (Ca)	<50 ppm	Strontium (Sr)	<0.001%
Chromium (Cr)	<0.001%	Titanium (Ti)	<0.001%
Cobalt (Co)	<50 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<10 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<20 ppm	Vanadium (V)	<0.001%
Lithium (Li)	<0.001%	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Nickel(II) chloride hexahydrate extra pure

SLR



packaging	product code
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500 g Plastic jar	N/1600/53
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$\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$
 CAS: 7791-20-0
 MW: 237.71
 ADR/RID: 6.1/III
 UN: 3288
 HS-Nr: 28273500
 EINECS: 231-743-0
 Risk: R45, R25, R43, R50/53
 Safety: S53, S24, S29, S37, S45, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca) <500 ppm	Potassium (K) <500 ppm
Cobalt (Co) <2000 ppm	Sodium (Na) <2000 ppm
Copper (Cu) <100 ppm	Total phosphorus (P) <200 ppm
Iron (Fe) <200 ppm	Total silicon (Si) <200 ppm
Lead (Pb) <200 ppm	Total sulphur (S) <500 ppm
Magnesium (Mg) <200 ppm	Zinc (Zn) <100 ppm

Nickel(II) nitrate hexahydrate extra pure

SLR



packaging	product code
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250 g Plastic jar	N/1750/50
500 g Plastic jar	N/1750/53

$\text{Ni}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$
 CAS: 13478-00-7
 MW: 290.79
 Density at 20°C: 2.05
 Boiling point: 137°C
 Boiling pressure: 760 mmHg
 Melting point: 56.7°C
 ADR/RID: 5.1/III
 UN: 2725
 HS-Nr: 28342910
 EINECS: 236-068-5
 Risk: R8, R22, R40
 Safety: S17, S36/37, S45



Assay: >98%

Guaranteed analysis

Calcium (Ca) <500 ppm	Sodium (Na) <1000 ppm
Cobalt (Co) <2000 ppm	Total chloride (Cl) <0.05%
Copper (Cu) <100 ppm	Total phosphorus (P) <200 ppm
Iron (Fe) <200 ppm	Total silicon (Si) <200 ppm
Lead (Pb) <200 ppm	Total sulphur (S) <500 ppm
Magnesium (Mg) <200 ppm	Zinc (Zn) <100 ppm
Potassium (K) <500 ppm	

Nickel(II) oxide (black) pure

packaging	product code
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500 g Plastic jar	N/1850/53
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NiO
 CAS: 1313-99-1
 MW: 74.71
 Density at 20°C: 6.67
 Melting point: 1960°C
 ADR/RID: 6.1/III
 UN: 3288
 HS-Nr: 28254000
 EINECS: 215-215-7
 Risk: R49, R43, R53
 Safety: S53, S45, S61



Nickel(II) sulfate hexahydrate for analysis

Certified AR



packaging	product code
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250 g Plastic jar	N/2051/50
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$\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$
 CAS: 10101-97-0
 MW: 262.85
 Melting point: 53°C
 ADR/RID: 9/III
 UN: 3077
 HS-Nr: 38220000
 Risk: R22, R40, R42/43, R50/53
 Safety: S22, S36/37, S60, S61



Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%) 4 to 6	Potassium (K) <50 ppm
Calcium (Ca) <50 ppm	Sodium (Na) <100 ppm
Cobalt (Co) <50 ppm	Total chloride (Cl) <0.001 %
Copper (Cu) <10 ppm	Total nitrogen (N) <10 ppm
Iron (Fe) <20 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <20 ppm	Total silicon (Si) <10 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <10 ppm

Typical analysis

Aluminium (Al) <0.001 %	Silver (Ag) <0.001 %
Barium (Ba) <0.001 %	Strontium (Sr) <0.001 %
Cadmium (Cd) <0.001 %	Titanium (Ti) <0.001 %
Chromium (Cr) <0.001 %	Vanadium (V) <0.001 %
Lithium (Li) <0.001 %	

Lot analysis on the label.

Nickel(II) sulfate hexahydrate extra pure

SLR



packaging	product code
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500 g Plastic jar	N/2000/53
1 kg Plastic jar	N/2000/60

$\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$
 CAS: 10101-97-0
 MW: 262.85
 Melting point: 53°C
 ADR/RID: 6.1/III
 UN: 3077
 HS-Nr: 28332400
 Risk: R22, R40, R42/43, R50/53
 Safety: S22, S36/37, S60, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca) <500 ppm	Potassium (K) <500 ppm
Cobalt (Co) <2000 ppm	Sodium (Na) <1000 ppm
Copper (Cu) <100 ppm	Total chloride (Cl) <0.01%
Iron (Fe) <200 ppm	Total phosphorus (P) <200 ppm
Lead (Pb) <200 ppm	Total silicon (Si) <200 ppm
Magnesium (Mg) <200 ppm	Zinc (Zn) <100 ppm

Nicotinic acid extra pure

SLR



packaging	product code
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250 g Plastic jar	N/2110/50
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$\text{C}_6\text{H}_5\text{NO}_2$
 CAS: 59-67-6
 MW: 123.11
 Melting point: 234 to 238°C
 HS-Nr: 29369090
 EINECS: 200-441-0
 Risk: R36
 Safety: S26, S39



Assay: >99.5%

Guaranteed analysis

Melting Point tested 234 to 237°C	Water <1%
Residue after ignition <0.2%	

Ninhydrin monohydrate extra pure

SLR

packaging	product code
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100 g Glass packaging	N/2158/48
500 g Glass packaging	N/2158/53

$\text{C}_9\text{H}_6\text{O}_4$
 CAS: 485-47-2
 MW: 178.15
 Boiling pressure: 760 mmHg
 Melting point: 250 °C
 HS-Nr: 29144900
 EINECS: 207-618-1
 Risk: R22, R36/37/38
 Safety: S26, S28A



Assay: >98%

Guaranteed analysis

Amino Acid Detection Conform	Residue after ignition <0.05%
Melting Point tested 240 to 260°C	

Ninhydrin spray pure

packaging	product code
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120 mL Aerosol	N/2160/90
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Density at 20°C: 0.81
 ADR/RID: 3/III
 UN: 1120
 HS-Nr: 38220000
 Risk: R12
 Safety: S7/9, S16



Pressurise container carefully by pumping the removable piston several times.

Ninhydrin spray refill*pure, 0.5% ninhydrin in butan-1-ol*

packaging	product code
500 mL Glass bottle	N/2161/90
Density at 20°C: 0.81	Risk: R12
UN: 1120	Safety: S7/9, S16
HS-Nr: 38220000	
Guaranteed analysis	
Residue after evaporation 0.4 to 0.6%	

**Niobium standard metal solution 1000 ppm***for ICP solution in H₂O/HF trace, NIST certified*

packaging	product code
100 mL Plastic bottle	SPPLNB92Y
500 mL Plastic bottle	SPPLNB92X

Density at 20°C: 1

*Manufactured to a tolerance of ± 0.5%.**All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.**See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.***Niobium standard metal solution 10 000 ppm***for ICP solution in H₂O/HF trace, NIST certified*

packaging	product code
100 mL Plastic bottle	SPPLNB93Y
500 mL Plastic bottle	SPPLNB93X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

*Manufactured to a tolerance of ± 0.5%.**All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.**See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.***Nitrate standard solution 1000 ppm (1 mg/ml)***for ion pair chromatography, Ready-to-use*

packaging	product code
100 mL Plastic bottle	J/4556/05

Density at 20°C: 1

HS-Nr: 38220000

*Manufactured to a tolerance of ± 1%.***Nitrate standard 1000 ppm***For ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASNO392Y
500 mL Plastic bottle	SPASNO392X

CAS: 7757-79-1

Density at 20°C: 1

*Manufactured to a tolerance of ± 0.3%.***Nitrate-Nitrogen standard 1000 ppm***For ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASNO3N92Y

CAS: 7757-79-1

Density at 20°C: 1

*Manufactured to a tolerance of ± 0.3%.***Nitrite standard 1000 ppm***For ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASNO292Y
500 mL Plastic bottle	SPASNO292X

CAS: 7632-00-0

Density at 20°C: 1

Risk: R8, R25

Safety: S45

*Manufactured to a tolerance of ± 0.3%.***Nitrite-Nitrogen standard 1000 ppm***For ion chromatography in H₂O, NIST certified*

packaging	product code
100 mL Plastic bottle	SPASNO2N92Y
500 mL Plastic bottle	SPASNO2N92X

CAS: 7632-00-0

Density at 20°C: 1

Risk: R8, R25

Safety: S45

*Manufactured to a tolerance of ± 0.3%.***Nitric Acid 53% d = 1.33***for analysis***Certified AR**

packaging	product code
1 L Plastic bottle	N/2175/PB15

HNO₃ ADR/RID: 8/II
 CAS: 7697-37-2 UN: 2031
 MW: 63.01 HS-Nr: 38220000
 Density at 20°C: 1.325 to 1.335 EINECS: 231-714-2
 Boiling point: 122°C Risk: R35
 Boiling pressure: 760 mmHg Safety: S23, S26, S36, S45
 Melting point: -42°C

Assay: 52.5 to 55%**Guaranteed analysis**

Colour	<10 APHA	Nickel (Ni)	<0.05 ppm
Arsenic (As)	<0.05 ppm	Sodium (Na)	<2 ppm
Calcium (Ca)	<1 ppm	Total chloride (Cl)	<0.00005 %
Chromium (Cr)	<0.05 ppm	Total phosphorus (P)	<0.5 ppm
Copper (Cu)	<0.1 ppm	Total silicon (Si)	<0.5 ppm
Lead (Pb)	<0.1 ppm	Total sulphur (S)	<1 ppm
Magnesium (Mg)	<0.2 ppm	Zinc (Zn)	<0.1 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Potassium (K)	<0.2 ppm
Cadmium (Cd)	<0.02 ppm	Silver (Ag)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Iron (Fe)	<0.2 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Manganese (Mn)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Mercury (Hg)	<0.05 ppm		

*Lot analysis on the label.***Nitric Acid 53% d = 1.33***extra pure***SLR**

packaging	product code
1 L Plastic bottle	N/2170/PB15
5 L Plastic bottle	N/2170/PB21

HNO₃ ADR/RID: 8/II
 CAS: 7697-37-2 UN: 2031
 MW: 63.01 HS-Nr: 38220000
 Density at 20°C: 1.32 to 1.33 EINECS: 231-714-2
 Boiling point: 122°C Risk: R35
 Boiling pressure: 760 mmHg Safety: S23, S26, S36, S45
 Melting point: -42°C

Assay: 52.5 to 55%

Guaranteed analysis

Colour	<10 APHA	Molybdenum (Mo)	<0.02 ppm
Aluminium (Al)	<0.1 ppm	Nickel (Ni)	<0.05 ppm
Arsenic (As)	<0.05 ppm	Potassium (K)	<0.2 ppm
Barium (Ba)	<0.02 ppm	Silver (Ag)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Sodium (Na)	<2 ppm
Calcium (Ca)	<1 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.05 ppm	Tin (Sn)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Copper (Cu)	<0.1 ppm	Total chloride (Cl)	<0.0005%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<0.5 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<0.5 ppm
Lithium (Li)	<0.02 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<0.2 ppm	Vanadium (V)	<0.02 ppm
Manganese (Mn)	<0.02 ppm	Zinc (Zn)	<0.1 ppm
Mercury (Hg)	<0.05 ppm		

Nitric Acid 65% d = 1.40 for analysis

Certified AR



packaging	product code
1 L Plastic bottle	N/2185/PB15
2.5 L Plastic bottle	N/2185/PB17

HNO_3
 CAS: 7697-37-2
 MW: 63.01
 Density at 20°C: 1.4
 Boiling point: 122°C
 Boiling pressure: 760 mmHg
 Melting point: -42°C

ADR/RID: 8/II
 UN: 2031
 HS-Nr: 38220000
 EINECS: 231-714-2
 Risk: R35
 Safety: S23, S26, S36, S45

Assay: >65%

Guaranteed analysis

Aluminium (Al)	<0.1 ppm	Nickel (Ni)	<0.05 ppm
Calcium (Ca)	<1 ppm	Potassium (K)	<0.2 ppm
Chromium (Cr)	<0.05 ppm	Sodium (Na)	<2 ppm
Colour	<10 APHA	Total chloride (Cl)	<0.00005 %
Copper (Cu)	<0.1 ppm	Total phosphorus (P)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Total sulphur (S)	<1 ppm
Lead (Pb)	<0.1 ppm	Zinc (Zn)	<0.1 ppm
Magnesium (Mg)	<0.2 ppm		

Typical analysis

Arsenic (As)	<0.02 ppm	Silver (Ag)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Manganese (Mn)	<0.02 ppm	Total silicon (Si)	<0.5 ppm
Mercury (Hg)	<0.05 ppm	Vanadium (V)	<0.02 ppm
Molybdenum (Mo)	<0.02 ppm		

Lot analysis on the label.

Nitric Acid 64% d = 1.38 extra pure

SLR



packaging	product code
1 L Plastic bottle	N/2180/PB15
2.5 L Plastic bottle	N/2180/PB17

HNO_3
 CAS: 7697-37-2
 MW: 63.01
 Density at 20°C: 1.4
 Boiling point: 122°C
 Boiling pressure: 760 mmHg
 Melting point: -42°C

ADR/RID: 8/II
 UN: 2031
 HS-Nr: 28080000
 EINECS: 231-714-2
 Risk: R35
 Safety: S23, S26, S36, S45

Assay: >64%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.2 ppm
Calcium (Ca)	<1 ppm	Sodium (Na)	<2 ppm
Chromium (Cr)	<0.05 ppm	Total chloride (Cl)	<0.00005%
Copper (Cu)	<0.1 ppm	Total phosphorus (P)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Total silicon (Si)	<0.5 ppm
Lead (Pb)	<0.1 ppm	Total sulphur (S)	<1 ppm
Magnesium (Mg)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Nickel (Ni)	<0.05 ppm		

Nitric acid 67-70% for ultra trace analysis

NEW SPEC.

OPTIMA



packaging	product code
250 mL Bottle Teflon FEP	N/2275/07
500 mL Bottle Teflon FEP	N/2275/08
1 L Bottle Teflon FEP	N/2275/15

HNO_3
 CAS: 7697-37-2
 MW: 63.01
 Density at 20°C: 1.4
 Boiling point: 122°C
 Boiling pressure: 760 mmHg

Melting point: -42°C
 ADR/RID: 8/II
 UN: 2031
 HS-Nr: 28080000
 Risk: R35
 Safety: S23, S26, S36, S45

Assay (HNO_3): 67 to 70%

Guaranteed analysis

Aluminium (Al)	<20 ppt	Molybdenum (Mo)	<10 ppt
Antimony (Sb)	<10 ppt	Neodymium (Nd)	<1 ppt
Arsenic (As)	<20 ppt	Nickel (Ni)	<50 ppt
Barium (Ba)	<10 ppt	Niobium (Nb)	<1 ppt
Beryllium (Be)	<10 ppt	Palladium (Pd)	<20 ppt
Bismuth (Bi)	<10 ppt	Platinum (Pt)	<20 ppt
Boron (B)	<20 ppt	Potassium (K)	<10 ppt
Cadmium (Cd)	<10 ppt	Praseodymium (Pr)	<1 ppt
Calcium (Ca)	<20 ppt	Rhenium (Re)	<10 ppt
Cerium (Ce)	<10 ppt	Rhodium (Rh)	<10 ppt
Cesium (Cs)	<10 ppt	Rubidium (Rb)	<10 ppt
Chromium (Cr)	<20 ppt	Ruthenium (Ru)	<20 ppt
Cobalt (Co)	<10 ppt	Samarium (Sm)	<1 ppt
Copper (Cu)	<20 ppt	Scandium (Sc)	<10 ppt
Dysprosium (Dy)	<1 ppt	Silver (Ag)	<10 ppt
Erbium (Er)	<1 ppt	Sodium (Na)	<10 ppt
Europium (Eu)	<1 ppt	Strontium (Sr)	<10 ppt
Gadolinium (Gd)	<1 ppt	Tantalum (Ta)	<10 ppt
Gallium (Ga)	<10 ppt	Tellurium (Te)	<1 ppt
Germanium (Ge)	<10 ppt	Terbium (Tb)	<1 ppt
Gold (Au)	<20 ppt	Thallium (Tl)	<10 ppt
Hafnium (Hf)	<10 ppt	Thorium (Th)	<1 ppt
Holmium (Ho)	<1 ppt	Thulium (Tm)	<1 ppt
Indium (In)	<1 ppt	Tin (Sn)	<20 ppt
Iron (Fe)	<20 ppt	Titanium (Ti)	<10 ppt
Lanthanum (La)	<1 ppt	Tungsten (W)	<10 ppt
Lead (Pb)	<10 ppt	Uranium (U)	<1 ppt
Lithium (Li)	<10 ppt	Vanadium (V)	<10 ppt
Lutetium (Lu)	<1 ppt	Ytterbium (Yb)	<1 ppt
Magnesium (Mg)	<10 ppt	Yttrium (Y)	<1 ppt
Manganese (Mn)	<10 ppt	Zinc (Zn)	<20 ppt
Mercury (Hg)	<100 ppt	Zirconium (Zr)	<10 ppt

Acids, Bases and Water for Trace Metal analysis

The right grade for the right detection level.
Choose between Optima®,
Trace Metal® & Primar Plus® grade.

Read more page 9



Nitric acid 67-70% for trace metal analysis

NEW

Trace metal grade

TraceMetal



packaging	product code
500 mL Coated Glass Bottle	N/2273/PB08
1 L Coated Glass Bottle	N/2273/PB15

HNO₃
CAS: 7697-37-2
MW: 63.01
Density at 20°C: 1.4
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C

ADR/RID: 8/II
UN: 2031
HS-Nr: 28080000
EINECS: 231-714-2
Risk: R35
Safety: S23, S26, S36, S45



Assay: 67 to 70%

Guaranteed analysis

Colour	<10 APHA	Nickel (Ni)	<0.1 ppb
Aluminium (Al)	<0.5 ppb	Niobium (Nb)	<0.1 ppb
Antimony (Sb)	<0.1 ppb	Palladium (Pd)	<0.1 ppb
Arsenic (As)	<0.1 ppb	Platinum (Pt)	<0.1 ppb
Barium (Ba)	<0.1 ppb	Potassium (K)	<0.2 ppb
Beryllium (Be)	<0.1 ppb	Praseodymium (Pr)	<0.1 ppb
Bismuth (Bi)	<0.1 ppb	Rhenium (Re)	<0.1 ppb
Boron (B)	<0.5 ppb	Rhodium (Rh)	<0.1 ppb
Cadmium (Cd)	<0.1 ppb	Rubidium (Rb)	<0.1 ppb
Calcium (Ca)	<0.5 ppb	Ruthenium (Ru)	<0.1 ppb
Cerium (Ce)	<0.1 ppb	Samarium (Sm)	<0.1 ppb
Cesium (Cs)	<0.1 ppb	Scandium (Sc)	<0.1 ppb
Chromium (Cr)	<0.5 ppb	Selenium (Se)	<0.1 ppb
Cobalt (Co)	<0.1 ppb	Silver (Ag)	<0.1 ppb
Copper (Cu)	<0.1 ppb	Sodium (Na)	<0.2 ppb
Dysprosium (Dy)	<0.1 ppb	Strontium (Sr)	<0.1 ppb
Erbium (Er)	<0.1 ppb	Tantalum (Ta)	<0.1 ppb
Europium (Eu)	<0.1 ppb	Tellurium (Te)	<0.1 ppb
Gadolinium (Gd)	<0.1 ppb	Terbium (Tb)	<0.1 ppb
Gallium (Ga)	<0.1 ppb	Thallium (Tl)	<0.1 ppb
Germanium (Ge)	<0.1 ppb	Thorium (Th)	<0.1 ppb
Gold (Au)	<0.1 ppb	Thulium (Tm)	<0.1 ppb
Hafnium (Hf)	<0.1 ppb	Tin (Sn)	<0.1 ppb
Holmium (Ho)	<0.1 ppb	Titanium (Ti)	<0.1 ppb
Indium (In)	<0.1 ppb	Total chloride (Cl)	<0.2 ppm
Iron (Fe)	<0.5 ppb	Total phosphorus (P)	<0.01 ppm
Lanthanum (La)	<0.1 ppb	Total sulphur (S)	<0.3 ppm
Lead (Pb)	<0.1 ppb	Tungsten (W)	<0.1 ppb
Lithium (Li)	<0.1 ppb	Uranium (U)	<0.1 ppb
Lutetium (Lu)	<0.1 ppb	Vanadium (V)	<0.1 ppb
Magnesium (Mg)	<0.2 ppb	Ytterbium (Yb)	<0.1 ppb
Manganese (Mn)	<0.1 ppb	Yttrium (Y)	<0.1 ppb
Mercury (Hg)	<0.2 ppb	Zinc (Zn)	<0.2 ppb
Molybdenum (Mo)	<0.1 ppb	Zirconium (Zr)	<0.1 ppb
Neodymium (Nd)	<0.1 ppb		

Thallium (Tl)	<0.005 ppm	Total sulphur (S)	<0.2 ppm
Tin (Sn)	<0.005 ppm	Vanadium (V)	<0.002 ppm
Titanium (Ti)	<0.002 ppm	Zinc (Zn)	<0.01 ppm
Total chloride (Cl)	<0.2 ppm	Zirconium (Zr)	<0.005 ppm
Total phosphorus (P)	<0.05 ppm		

Nitric acid 70% d=,42 for electronic use (MOS)

packaging	product code
2.5 L Plastic bottle	N/2222/PB17

HNO₃
CAS: 7697-37-2
MW: 63.01
Density at 20°C: 1.41
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C

ADR/RID: 8/II
UN: 2031
HS-Nr: 28080000
EINECS: 231-714-2
Risk: R8, R35
Safety: S23, S26, S36, S45



Assay: 69 to 71%

Guaranteed analysis

Colour	<10 APHA	Molybdenum (Mo)	<0.02 ppm
Aluminium (Al)	<0.1 ppm	Nickel (Ni)	<0.05 ppm
Barium (Ba)	<0.02 ppm	Potassium (K)	<0.2 ppm
Cadmium (Cd)	<0.02 ppm	Sodium (Na)	<2 ppm
Calcium (Ca)	<1 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.05 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total chloride (Cl)	<0.00005%
Copper (Cu)	<0.1 ppm	Total phosphorus (P)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Total silicon (Si)	<0.5 ppm
Lead (Pb)	<0.1 ppm	Total sulphur (S)	<1 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Magnesium (Mg)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Manganese (Mn)	<0.02 ppm		

The concentration of nitric acid solution is 15.8 M (15.8 N).
Filtered to 10 µm.

Nitric acid 68 % d= 1.42 for analysis

NEW SPEC.

Certified AR



packaging	product code
500 mL Coated Glass Bottle	N/2300/PB08
1 L Plastic bottle	N/2300/PB15
2.5 L Plastic bottle	N/2300/PB17
2.5 L Coated Glass Bottle	N/2300/PC17

HNO₃
CAS: 7697-37-2
MW: 63.01
Density at 20°C: 1.41
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C

ADR/RID: 8/II
UN: 2031
HS-Nr: 28080000
EINECS: 231-714-2
Risk: R8, R35
Safety: S23, S26, S36, S45

Assay: >68%

Guaranteed analysis

Colour	<10 APHA	Nickel (Ni)	<0.02 ppm
Residue after ignition	<0.0005%	Potassium (K)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Residue after ignition	<0.0005%
Chromium (Cr)	<0.05 ppm	Total chloride (Cl)	<0.5 ppm
Copper (Cu)	<0.05 ppm	Total phosphorus (P)	<0.1 ppm
Iron (Fe)	<0.2 ppm	Total sulphur (S)	<1 ppm
Lead (Pb)	<0.05 ppm	Zinc (Zn)	<0.05 ppm
Magnesium (Mg)	<0.2 ppm		

Typical analysis

Aluminium (Al)	<0.05 ppm	Molybdenum (Mo)	<0.01 ppm
Arsenic (As)	<0.01 ppm	Silver (Ag)	<0.01 ppm
Barium (Ba)	<0.02 ppm	Sodium (Na)	<0.5 ppm
Cadmium (Cd)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Titanium (Ti)	<0.02 ppm
Manganese (Mn)	<0.02 ppm	Total silicon (Si)	<0.5 ppm
Mercury (Hg)	<0.01 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

The concentration of nitric acid solution is 15.8 M (15.8 N).

Nitric acid 68% d =1.42 for trace metal analysis

NEW SPEC.

Primar Plus

PrimarPlus



packaging	product code
500 mL Coated Glass Bottle	N/2272/PB08
1 L Coated Glass Bottle	N/2272/PB15
2.5 L Coated Glass Bottle	N/2272/PB17

HNO₃
CAS: 7697-37-2
MW: 63.01
Density at 20°C: 1.4
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C

ADR/RID: 8/II
UN: 2031
HS-Nr: 28080000
EINECS: 231-714-2
Risk: R35
Safety: S23, S26, S36, S45



Assay: >68%

Guaranteed analysis

Aluminium (Al)	<0.1 ppm	Iron (Fe)	<0.05 ppm
Antimony (Sb)	<0.005 ppm	Lead (Pb)	<0.002 ppm
Arsenic (As)	<0.005 ppm	Lithium (Li)	<0.002 ppm
Barium (Ba)	<0.05 ppm	Magnesium (Mg)	<0.02 ppm
Beryllium (Be)	<0.005 ppm	Manganese (Mn)	<0.002 ppm
Bismuth (Bi)	<0.005 ppm	Mercury (Hg)	<0.005 ppm
Boron (B)	<0.005 ppm	Molybdenum (Mo)	<0.002 ppm
Cadmium (Cd)	<0.002 ppm	Nickel (Ni)	<0.002 ppm
Calcium (Ca)	<0.05 ppm	Potassium (K)	<0.02 ppm
Chromium (Cr)	<0.005 ppm	Selenium (Se)	<0.002 ppm
Copper (Cu)	<0.005 ppm	Silver (Ag)	<0.005 ppm
Gallium (Ga)	<0.005 ppm	Sodium (Na)	<0.1 ppm
Germanium (Ge)	<0.005 ppm	Strontium (Sr)	<0.002 ppm
Indium (In)	<0.005 ppm		

Nitric acid 70% d=,42 extra pure

SLR

Specified

packaging	product code
1 L Plastic bottle	N/2250/PB15
2.5 L Plastic bottle	N/2250/PB17

HNO_3
CAS: 7697-37-2
MW: 63.01
Density at 20°C: 1.41
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C
ADR/RID: 8/II
UN: 2031
HS-Nr: 28080000
EINECS: 231-714-2
Risk: R8, R35
Safety: S23, S26, S36, S45



Assay: 68 to 72%

Guaranteed analysis

Calcium (Ca) <20 ppm	Potassium (K) <10 ppm
Chromium (Cr) <2 ppm	Sodium (Na) <50 ppm
Copper (Cu) <2 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <10 ppm	Total phosphorus (P) <10 ppm
Lead (Pb) <2 ppm	Total silicon (Si) <10 ppm
Magnesium (Mg) <5 ppm	Total sulphur (S) <20 ppm
Nickel (Ni) <2 ppm	Zinc (Zn) <2 ppm

The concentration of nitric acid solution is 15.8 M (15.8 N).

Nitric acid 70% d=1.42 Technical

packaging	product code
2.5 L Plastic bottle	N/2200/PB17

HNO_3
CAS: 7697-37-2
MW: 63.01
Density at 20°C: 1.41
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C
ADR/RID: 8/II
UN: 2031
HS-Nr: 28080000
EINECS: 231-714-2
Risk: R8, R35
Safety: S23, S26, S36, S45



Assay: >70%

Nitric acid solution 2M (2N) NEW SPEC. NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
2.5 L Plastic bottle	J/5545/PB17

Density at 20°C: 1.03
ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45


Manufactured to a tolerance of $\pm 0.5\%$.

Nitric acid solution 0.1M (0.1N) NEW SPEC. NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/5600/PB15
2.5 L Plastic bottle	J/5600/17

Density at 20°C: 1
HS-Nr: 38220000
Safety: S24/25

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Nitric acid solution 1M (1N) NEW SPEC. Eur.Ph., USP, BP NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/5550/PB15
2.5 L Plastic bottle	J/5550/PB17
10 L Cubitainer	J/5550/24

Density at 20°C: 1.03
ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45


Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Nitric acid solution 1M (1N) NEW SPEC. NIST Standard Concentrate, For Volumetric analysis

Solute

packaging	product code
1 ampoule	J/5550C/05
6 ampoule	J/5550C/90

Density at 20°C: 1.4
Boiling point: 122°C
Boiling pressure: 760 mmHg
Melting point: -42°C
ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R35
Safety: S23, S26, S36, S45



Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

2,2',2''-Nitrilotriethanol See Triethanolamine, page 294



p-Nitroaniline See 4-Nitroaniline, page 177



4-Nitroaniline pure

packaging	product code
100 g Glass packaging	N/2600/48

$\text{C}_6\text{H}_5\text{N}_2\text{O}_2$
CAS: 100-01-6
MW: 138.13
Boiling point: 332°C
Boiling pressure: 760 mmHg
Melting point: 147 to 151°C
Flash point: 199°C
ADR/RID: 6.1/II
UN: 1661
HS-Nr: 29214210
EINECS: 202-810-1
Risk: R23/24/25, R33, R52/53
Safety: S28A, S36/37, S45, S61



Guaranteed analysis

Melting Point tested 146 to 149°C

Nitromethane extra pure

SLR

Specified

packaging	product code
100 mL Coated Glass Bottle	N/3000/PB05
500 mL Coated Glass Bottle	N/3000/PB08
200 L Metal drum	N/3000/27

CH_3NO_2
CAS: 75-52-5
MW: 61.04
Density at 20°C: 1.13 to 1.139
Boiling point: 100 to 102°C
Boiling pressure: 760 mmHg
Melting point: -29°C
Flash point: 35°C
ADR/RID: 3/II
UN: 1261
HS-Nr: 29042090
EINECS: 200-876-6
Risk: R5, R10, R22
Safety: S41



see page 279 for suitable Tap & accessories.

3-Nitrophenol extra pure

SLR

Specified

packaging	product code
25 g Plastic jar	N/3150/46

$\text{C}_6\text{H}_5\text{NO}_3$
CAS: 554-84-7
MW: 139.11
Boiling point: 194°C
Boiling pressure: 70 mmHg
Melting point: 96 to 98°C
ADR/RID: 6.1/III
UN: 1663
HS-Nr: 29089090
EINECS: 209-073-5
Risk: R20/21/22, R33
Safety: S36/37, S45



Guaranteed analysis

Melting Point tested 96 to 98°C

4-Nitrophenol extra pure, pH indicator

SLR

Specific Fied	packaging	product code
	100 g Glass packaging	N/3200/48
C ₆ H ₅ NO ₃ CAS: 100-02-7 MW: 139.11 Boiling point: 279°C Boiling pressure: 760 mmHg Melting point: >112°C Flash point: 169°C	ADR/RID: 6.1/III UN: 1663 HS-Nr: 29089990 EINECS: 202-811-7 Risk: R20/21/22, R33 Safety: S28A	Xn
Guaranteed analysis		
Melting Point tested 111 to 114°C		
For the determination of pH. pH 5.6-7.6 colorless to yellow.		

p-Nitrophenylamine See 4-Nitroaniline, page 177



4-Nitrophenyl disodium orthophosphate pure

packaging	product code
5 g Plastic jar	N/3390/44
25 g Plastic jar	N/3390/46
C ₆ H ₄ NNa ₂ PO ₆ ·6H ₂ O CAS: 4264-83-9 MW: 371.15 Melting point: >300°C	HS-Nr: 38220000 EINECS: 224-246-5 Safety: S24/25
Guaranteed analysis	
IR Analysis Conform	

Nitroso-R-salt extra pure, determination of cobalt

SLR

Specific Fied	packaging	product code
	25 g Plastic jar	N/3650/46
C ₁₀ H ₈ NNa ₂ O ₈ S ₂ ·xH ₂ O CAS: 525-05-3 MW: 377.26 Melting point: >300°C	HS-Nr: 29089000 EINECS: 208-369-1 Risk: R20/21/22, R36/37/38 Safety: S26, S36/37/39	Xn
Assay: >90%		

n-Nonane pure

packaging	product code
100 mL Glass bottle	N/3900/05
C ₉ H ₂₀ CAS: 111-84-2 MW: 128.26 Density at 20°C: 0.71 Boiling point: 151°C Boiling pressure: 760 mmHg Melting point: -53°C	Flash point: 31°C ADR/RID: 3/III UN: 1920 HS-Nr: 29011000 EINECS: 203-913-4 Risk: R10, R51/53 Safety: S16, S61
Assay (GC): >99%	

1-Nonanol extra pure

SLR

Specific Fied	packaging	product code
	500 mL Glass bottle	N/4020/08
C ₉ H ₂₀ O CAS: 143-08-8 MW: 144.26 Density at 20°C: 0.83 Boiling point: 213 to 215°C Boiling pressure: 760 mmHg Melting point: -5°C	Flash point: 74°C ADR/RID: 9/III UN: 3082 HS-Nr: 29051990 EINECS: 205-583-7 Risk: R20, R51/53 Safety: S29, S61	Xn
Assay (GC): >98%		

Nonyl alcohol See 1-Nonanol, page 178



n-Octane extra pure

SLR

Specific Fied	packaging	product code
	100 mL Glass bottle	O/0020/05
	500 mL Glass bottle	O/0020/08
C ₈ H ₁₈ CAS: 111-65-9 MW: 114.23 Density at 20°C: 0.696 to 0.705 Boiling point: 125 to 127°C Boiling pressure: 760 mmHg Melting point: -57°C Flash point: 13°C	ADR/RID: 3/II UN: 1262 HS-Nr: 29011000 EINECS: 203-892-1 Risk: R11, R38, R50/53, R65, R67 Safety: S9, S16, S29, S33, S60, S61, S62	F Xn N
Assay (GC): >99%		

1-Octane sulfonic acid sodium salt for ion pair chromatography in electrochemical detection

HPLC electrochemical	packaging	product code
	25 g Plastic jar	O/0029/46
C ₈ H ₁₇ NaSO ₃ CAS: 5324-84-5 MW: 216.28 Melting point: >300°C	HS-Nr: 29041000 EINECS: 357-424-1 Risk: R36/37/38 Safety: S26, S37/39	Xi
Assay: >98%		
Guaranteed analysis		
Electrochemical test Conform		

Absorbance specification
Max. Absorbance (1cm cell v HPLC water)
200 nm (sol. aqu. 0.25 M) <0.1 A.U. 230 nm (sol. aqu. 0.25 M) <0.03 A.U.
210 nm (sol. aqu. 0.25 M) <0.05 A.U. 240 nm (sol. aqu. 0.25 M) <0.02 A.U.
220 nm (sol. aqu. 0.25 M) <0.04 A.U. 260 nm (sol. aqu. 0.25 M) <0.02 A.U.
Tested by HPLC-EC to ensure low electrochemical response.
Detector - ESA Coulochem II
Mode-oxidative
Graphite Electrode.
Lot analysis on the label.

1-Octane sulfonic acid sodium salt for ion pair chromatography

HPLC	packaging	product code
	5 g Glass packaging	O/0028/44
	25 g Plastic jar	O/0028/46
	100 g Plastic jar	O/0028/48
C ₈ H ₁₇ NaSO ₃ CAS: 5324-84-5 MW: 216.28 Melting point: >300°C	HS-Nr: 29041000 EINECS: 357-424-1 Risk: R36/37/38 Safety: S26, S37/39	Xi
Assay: >98%		
Guaranteed analysis		
Solution (5% in methanol) Conform		

Absorbance specification
Max. Absorbance (1cm cell v HPLC water)
200 nm (sol. aqu. 0.25 M) <0.1 A.U. 230 nm (sol. aqu. 0.25 M) <0.03 A.U.
210 nm (sol. aqu. 0.25 M) <0.05 A.U. 240 nm (sol. aqu. 0.25 M) <0.02 A.U.
220 nm (sol. aqu. 0.25 M) <0.04 A.U. 260 nm (sol. aqu. 0.25 M) <0.02 A.U.
Lot analysis on the label.

Save money!
Order 4 bottles in a box



1-Octanesulfonic acid sodium salt solution 0.1M for ion pair chromatography



packaging	product code
250 mL Glass bottle	O/0026/07

HS-Nr: 29041000
Risk: R36/38
Safety: S26, S28

Absorbance specification
Max. Absorbance (1 cm cell v HPLC water)
254 nm (sol. aqu. 0.005 M) < 0.02 A.U.

Lot analysis on the label.



Oleic acid extra pure

SLR



packaging	product code
1 L Glass bottle	O/0200/15
2.5 L Glass bottle	O/0200/17

C₁₈H₃₄O₂
CAS: 112-80-1
MW: 282.47
Density at 20°C: 0.885 to 0.9
Boiling point: 360°C
Boiling pressure: 760 mmHg
Melting point: 13°C
Flash point: 189°C
HS-Nr: 38220000
EINECS: 204-007-1
Risk: R36/37/38
Safety: S26, S37/39



Guaranteed analysis

Acid 197 to 202 mg KOH/g Iodine index 85 - 92
Residue after ignition <0.1%

n-Octanoic acid extra pure

SLR



packaging	product code
500 mL Glass bottle	O/0030/08

C₈H₁₆O₂
CAS: 124-07-2
MW: 144.24
Density at 20°C: 0.91
Boiling point: 237°C
Boiling pressure: 760 mmHg
Melting point: 16 to 16.5°C
Flash point: 130°C
ADR/RID: 8/III
UN: 3265
HS-Nr: 29159000
EINECS: 204-677-5
Risk: R34
Safety: S25, S36/37/39, S45

Assay: >98%



Oleic acid pure

packaging	product code
2.5 L Glass bottle	O/0150/17
200 L Metal drum	O/0150/27

C₁₈H₃₄O₂
CAS: 112-80-1
MW: 282.46
Density at 20°C: 0.89
Boiling point: 360°C
Boiling pressure: 760 mmHg
Melting point: 13°C
Flash point: 189°C
HS-Nr: 38220000
EINECS: 204-007-1
Risk: R36/37/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

see page 279 for suitable Tap & accessories.

Octan-1-ol pure

packaging	product code
500 mL Glass bottle	O/0050/08
2.5 L Glass bottle	O/0050/17

C₈H₁₈O
CAS: 111-87-5
MW: 130.23
Density at 20°C: 0.82
Boiling point: 195°C
Boiling pressure: 760 mmHg
Melting point: -16°C
Flash point: 81°C
HS-Nr: 29051690
EINECS: 203-917-6
Risk: R36/38
Safety: S26, S37/39

Assay (GC): >98%



Oleum See Sulfuric acid fuming, page 276



Olive oil pure

packaging	product code
500 mL Glass bottle	O/0250/08
2.5 L Glass bottle	O/0250/17

HS-Nr: 38220000

Octan-2-ol pure

packaging	product code
500 mL Glass bottle	O/0100/08
2.5 L Glass bottle	O/0100/17

C₈H₁₈O
CAS: 123-96-6
MW: 130.23
Density at 20°C: 0.81
Boiling point: 174 to 181°C
Boiling pressure: 760 mmHg
Melting point: -38°C
Flash point: 71°C
HS-Nr: 29051690
EINECS: 204-667-0
Safety: S24/25

Assay (GC): >98%

Orange G sodium salt pure

packaging	product code
25 g Glass packaging	O/0275/46

C₁₆H₁₀N₂Na₂O₇S₂
CAS: 1936-15-8
MW: 452.37
Melting point: 141°C
HS-Nr: 32041200
EINECS: 217-705-6
Risk: R36/37/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Oct-1-ene pure

packaging	product code
100 mL Coated Glass Bottle	O/0105/PB05

C₈H₁₆
CAS: 111-66-0
MW: 112.21
Density at 20°C: 0.72
Boiling point: 121 to 123°C
Boiling pressure: 760 mmHg
Melting point: -102°C
Flash point: 13°C
ADR/RID: 3/II
UN: 3295
HS-Nr: 29012990
EINECS: 203-893-7
Risk: R11, R65
Safety: S9, S16, S33, S62

Assay (GC): >95%



Orcein staining pure

packaging	product code
5 g Glass packaging	O/0300/44

CAS: 1400-62-0
ADR/RID: 6.1/III
UN: 3143
HS-Nr: 38220000
EINECS: 215-750-6
Risk: R22, R36/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Orcinol monohydrate

pure

packaging	product code
25 g Plastic jar	O/0351/46
$C_7H_8O_2 \cdot H_2O$ CAS: 6153-39-5 MW: 142.15 Boiling point: 290°C Boiling pressure: 760 mmHg Melting point: 56 to 61°C HS-Nr: 29072990 EINECS: 207-984-2 Risk: R22, R36/37/38 Safety: S26, S37/39	
Guaranteed analysis IR Analysis Conform	



Orthophosphoric acid 85%

HPLC for electrochemical detection

Certified

packaging	product code
500 mL Coated Glass Bottle	O/0515/PB08
H_3PO_4 CAS: 7664-38-2 MW: 98 Density at 20°C: 1.68 Boiling point: 158°C Boiling pressure: 760 mmHg Melting point: 21°C ADR/RID: 8/III UN: 1805 HS-Nr: 28092000 EINECS: 231-633-2 Risk: R34 Safety: S26, S45	
Assay: >85% Guaranteed analysis Electrochemical test Conform Iron (Fe) <10 ppm Lead (Pb) <5 ppm Total chloride (Cl) <0.001%	



Absorbance specification
Max. Absorbance (1cm cell v HPLC water)
254 nm <0.02 A.U.
Tested by HPLC-EC to ensure low electrochemical response.
Detector - ESA Coulochem II
Mode-oxidative
Graphite Electrode.
Orthophosphoric acid 85% is equivalent to a strength of 15.2 M (45.6 N).
Lot analysis on the label.
Filtered to 0.2 µm.

Orthophosphoric acid solution 1M

for HPLC

Certified

packaging	product code
500 mL Coated Glass Bottle	J/5655/PB08
H_3PO_4 UN: 1805 HS-Nr: 28061000	
Guaranteed analysis Molarity 0.98 to 1.02 M	

Orthophosphoric acid 85%

for electronic use (MOS)

packaging	product code
2.5 L Coated Glass Bottle	O/0505/PB17
200 L Metal drum	O/0505/27
H_3PO_4 CAS: 7664-38-2 MW: 98 Density at 20°C: 1.68 Boiling point: 158°C Boiling pressure: 760 mmHg Melting point: 21°C ADR/RID: 8/III UN: 1805 HS-Nr: 28061000 EINECS: 231-633-2 Risk: R34 Safety: S26, S45	
Assay: >85%	



Guaranteed analysis

Colour	<10 APHA	Molybdenum (Mo)	<1 ppm
Aluminium (Al)	<2 ppm	Nickel (Ni)	<5 ppm
Barium (Ba)	<1 ppm	Potassium (K)	<20 ppm
Cadmium (Cd)	<1 ppm	Sodium (Na)	<200 ppm
Calcium (Ca)	<50 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<10 ppm	Total nitrogen (N)	<5 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<10 ppm
Lithium (Li)	<1 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm	Vanadium (V)	<20 ppm
Manganese (Mn)	<1 ppm	Zinc (Zn)	<5 ppm

Orthophosphoric acid 85% is equivalent to a strength of 15.2 M (45.6 N).
Filtered to 10 µm.

see page 279 for suitable Tap & accessories.

Orthophosphoric acid 85+%

for analysis

Certified AR

packaging	product code
500 mL Plastic bottle	O/0500/PB08
1 L Plastic bottle	O/0500/PB15
2.5 L Plastic bottle	O/0500/PB17
200 L Metal drum	O/0500/27
H_3PO_4 CAS: 7664-38-2 MW: 98 Density at 20°C: 1.68 Boiling point: 158°C Boiling pressure: 760 mmHg Melting point: 21°C ADR/RID: 8/III UN: 1805 HS-Nr: 28092000 EINECS: 231-633-2 Risk: R34 Safety: S26, S45	
Assay: >85%	



Colour	<10 APHA	Potassium (K)	<20 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001 %
Iron (Fe)	<10 ppm	Total nitrogen (N)	<5 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<10 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<20 ppm
Nickel (Ni)	<5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Silver (Ag)	<2 ppm
Cadmium (Cd)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Orthophosphoric acid is equivalent to a strength of 15.2 M or 45.6 N.
Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Orthophosphoric acid 85+%

extra pure

SLR

packaging	product code
500 mL Plastic bottle	O/0450/PB08
1 L Plastic bottle	O/0450/PB15
2.5 L Plastic bottle	O/0450/PB17
5 L Plastic bottle	O/0450/PB21
25 L Metal drum	O/0450/25
H_3PO_4 CAS: 7664-38-2 MW: 98 Density at 20°C: 1.68 Boiling point: 158°C Boiling pressure: 760 mmHg Melting point: 21°C ADR/RID: 8/III UN: 1805 HS-Nr: 38220000 EINECS: 231-633-2 Risk: R34 Safety: S26, S45	
Assay: >85%	



Calcium (Ca)	<200 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<1000 ppm
Iron (Fe)	<50 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<100 ppm
Nickel (Ni)	<20 ppm	Zinc (Zn)	<20 ppm

Orthophosphoric acid is equivalent to a strength of 15.2 M or 45.6 N.
see page 279 for suitable Tap & accessories.

Orthophosphoric acid
pure, about 100% H₃PO₄ (contains some H₄P₂O₇)

packaging	product code
500 g Plastic jar	0/0510/53
H ₃ PO ₄ CAS: 7664-38-2 MW: 98 Density at 20°C: 1.68 Boiling point: 158°C Boiling pressure: 760 mmHg Melting point: 21°C	
ADR/RID: 8/III UN: 3453 HS-Nr: 28061000 EINECS: 231-633-2 Risk: R34 Safety: S26, S45	



Oxalic acid anhydrous
extra pure

SLR

packaging	product code
500 g Plastic jar	0/0580/53
C ₂ H ₂ O ₄ CAS: 144-62-7 MW: 90.04 Density at 20°C: 1.9 Boiling point: DC°C Melting point: 189-191°C Flash point: >93.4°C	
ADR/RID: 8/II UN: 3261 HS-Nr: 29171100 EINECS: 205-634-3 Risk: R21/22 Safety: S24/25	



Guaranteed analysis

IR Analysis Conform

Oxalic acid dihydrate
for analysis

Certified AR

packaging	product code
500 g Plastic jar	0/0650/53
1 kg Plastic jar	0/0650/60
5 kg Plastic drum	0/0650/65
25 kg Plastic screw top Keg	0/0650/70
C ₂ H ₂ O ₄ ·2H ₂ O CAS: 6153-56-6 MW: 126.07 Melting point: 98 to 102°C ADR/RID: 8/II	
UN: 3261 HS-Nr: 28092000 EINECS: 205-634-3 Risk: R21/22 Safety: S24/25	



Assay: 99.5 to 100.5%

Guaranteed analysis

Calcium (Ca) <10 ppm	Total chloride (Cl) <0.0005 %
Copper (Cu) <2 ppm	Total nitrogen (N) <10 ppm
Iron (Fe) <2 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <2 ppm	Total silicon (Si) <10 ppm
Magnesium (Mg) <10 ppm	Total sulphur (S) <50 ppm
Potassium (K) <20 ppm	Zinc (Zn) <2 ppm
Sodium (Na) <50 ppm	

Typical analysis

Aluminium (Al) <1 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm
Manganese (Mn) <1 ppm	

Lot analysis on the label.

Oxalic acid dihydrate
extra pure

SLR

packaging	product code
500 g Plastic jar	0/0600/53
1 kg Plastic jar	0/0600/60
2.5 kg Plastic jar	0/0600/62
5 kg Plastic drum	0/0600/65

C ₂ H ₂ O ₄ ·2H ₂ O CAS: 6153-56-6 MW: 126.07 Melting point: 98 to 102°C ADR/RID: 8/II	
UN: 3261 HS-Nr: 29171100 EINECS: 205-634-3 Risk: R21/22 Safety: S24/25	



Assay: >99%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <200 ppm
Copper (Cu) <10 ppm	Total chloride (Cl) <0.002%
Iron (Fe) <10 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <10 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <200 ppm
Potassium (K) <100 ppm	Zinc (Zn) <10 ppm

Oxalic acid solution 0.05M (0.1N)

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/5650C/05
6 ampoule	J/5650C/90

HS-Nr: 38220000

Risk: R21/22

Safety: S24/25



Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Oxalic acid, sodium salt See Sodium oxalate, page 250



Oxygen mixture

pure, (Potassium(V)chlorate & Manganese(IV)oxide)

packaging	product code
500 g Glass packaging	0/0850/53

ADR/RID: 8/

UN: 1479

HS-Nr: 38220000

Risk: R9, R20/22

Safety: S2, S13, S16, S27



Palladium standard metal solution 1000 ppm
for ICP solution in HCL 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLPD32Y
500 mL Plastic bottle	SPPLPD32X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Palladium chloride(II)
extra pure

SLR



packaging	product code
1 g Glass tube	P/0120/43
5 g Glass tube	P/0120/44

PdCl₂

CAS: 7647-10-1

MW: 177.31

Melting point: 678-680°C

ADR/RID: 6.1(8)/II

UN: 3290

HS-Nr: 28439090

EINECS: 231-596-2

Risk: R28, R34, R40, R43

Safety: S26, S37/39, S45



The palladium prices vary depending on the course of the raw material.

Pancreatin

pure, from mammalian pancrea,

BP

packaging	product code
100 g Plastic jar	P/0290/48

CAS: 8049-47-6

HS-Nr: 38220000

EINECS: 232-468-9

Risk: R36/37/38, R42/43

Safety: S22, S24, S26, S37/39



Guaranteed analysis

IR Analysis Conform

(+)-Pantothenic acid calcium salt
extra pure

SLR



packaging	product code
100 g Plastic Jar	P/0295/48

$C_8H_{32}Ca(NO_3)_2$
CAS: 137-08-6
MW: 476.54
Melting point: 190°C

HS-Nr: 29362400
EINECS: 205-278-9
Safety: S24/25, S37, S45

Guaranteed analysis

Loss on drying <5% Calcium (Ca) 82000 to 86000 ppm
Specific rotation (α 20/D) ... +25° to +27° Lead (Pb) <30 ppm

Paraffin liquid d=0.86
For IR Spectroscopy

packaging	product code
500 mL Glass bottle	P/0405/08

CAS: 8012-95-1
Density at 20°C: 0.85 to 0.87
HS-Nr: 27122090
EINECS: 232-384-2

Guaranteed analysis

IR Analysis Conform

Paraffin soft white
pure

packaging	product code
500 g box	P/0480/53

CAS: 64771-71-7
HS-Nr: 27121090
EINECS: 232-384-2

Guaranteed analysis

IR Analysis Conform

Paraffin soft yellow
pure

packaging	product code
500 g box	P/0440/53

CAS: 64771-71-7
HS-Nr: 27121090
EINECS: 232-384-2

Guaranteed analysis

IR Analysis Conform

Paraffin liquid water white
pure, d=0.86-0.89

packaging	product code
2.5 L Glass bottle	P/0400/17
25 L Metal drum	P/0400/25

CAS: 8012-95-1
HS-Nr: 27122090
EINECS: 232-384-2

Guaranteed analysis

Density 15.5°C 0.86 to 0.89

see page 279 for suitable Tap & accessories.

Paraffin liquid water white
pure, d=0.83-0.86

packaging	product code
2.5 L Glass bottle	P/0360/17
25 L Metal drum	P/0360/25

CAS: 8012-95-1
HS-Nr: 27122090
EINECS: 232-384-2

Guaranteed analysis

Density 15.5°C 0.83 to 0.86

see page 279 for suitable Tap & accessories.

Paraffin liquid
Technical, d=0.88 for oil baths

packaging	product code
2.5 L Glass bottle	P/0320/17
25 L Metal drum	P/0320/25

CAS: 8012-95-1
HS-Nr: 27122090
EINECS: 232-384-2

Guaranteed analysis

Density 15.5°C 0.86 to 0.89

see page 279 for suitable Tap & accessories.

Paraffin wax pastillated
pure, melting point about 60°C

packaging	product code
450 g Plastic jar	P/0680/90

CAS: 8002-74-2 Flash point: 198°C
Boiling point: 322°C HS-Nr: 38220000
Boiling pressure: 760 mmHg EINECS: 232-315-6
Melting point: 58 to 62°C Safety: S24/25

Guaranteed analysis

Melting Point tested 55 to 65°C

Paraffin wax pastillated
pure, melting point about 57°C

packaging	product code
450 g Plastic jar	P/0650/90

CAS: 8002-74-2 Flash point: 198°C
Boiling point: 322°C HS-Nr: 38220000
Boiling pressure: 760 mmHg EINECS: 232-315-6
Melting point: 58 to 62°C Safety: S24/25

Guaranteed analysis

Melting Point tested 56 to 58°C

Paraffin wax pastillated
pure, melting point about 52°C

packaging	product code
450 g Plastic jar	P/0600/90

CAS: 8002-74-2 Flash point: 198°C
Boiling point: 322°C HS-Nr: 38220000
Boiling pressure: 760 mmHg EINECS: 232-315-6
Melting point: 58 to 62°C Safety: S24/25

Guaranteed analysis

Melting Point tested 51 to 53°C

pH Buffers

NIST Certified Standard
Solution & Concentrate
A full range to discover on page 45

**Standard Certified
for AAS, ICP & ICP-MS**

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Paraffin wax

pure, melting point about 49°C-52°C

packaging	product code
450 g Plastic jar	P/0560/90
CAS: 8002-74-2	Flash point: 198°C
Boiling point: 322°C	HS-Nr: 38220000
Boiling pressure: 760 mmHg	EINECS: 232-315-6
Melting point: 58 to 62°C	Safety: S24/25
Guaranteed analysis	
Melting Point tested	49 to 52°C

Paraffin wax

pure, clearing point about 65-71°C

packaging	product code
450 g Plastic jar	P/0720/90
CAS: 8002-74-2	Flash point: 198°C
Boiling point: 322°C	HS-Nr: 38220000
Boiling pressure: 760 mmHg	EINECS: 232-315-6
Melting point: 58 to 62°C	Safety: S24/25

Paraformaldehyde

extra pure

SLR

packaging	product code
500 g Plastic jar	P/0840/53
(CH ₂ O) _n	HS-Nr: 29126000
CAS: 30525-89-4	EINECS: 200-001-8
Melting point: 120-170°C	Risk: R20/22, R36/37/38, R40, R43
Flash point: 71°C	Safety: S24, S26, S36/37/39, S45
ADR/RID: 4.1/III	
UN: 2213	
Guaranteed analysis	
IR Analysis	Conform

Pectin

pure, citrus - 121 grade slow setting 121

packaging	product code
100 g Plastic jar	P/0920/48
CAS: 9000-69-5	
HS-Nr: 38220000	
EINECS: 232-553-0	
Safety: S24/25	

Pelargonic alcohol

See 1-Nonanol, page 178



Pentachlorophenol

pure

packaging	product code
500 g Plastic jar	P/0960/53
C ₆ HCl ₅ O	UN: 3155
CAS: 87-86-5	HS-Nr: 29081090
MW: 266.34	EINECS: 201-778-6
Density at 20°C: 1.97	Risk: R24/25, R26, R36/37/38, R40, R50/53
Boiling point: 310°C	Safety: S22, S36/37, S45, S52, S60, S61
Boiling pressure: 760 mmHg	
Melting point: 165 to 180°C	
ADR/RID: 6.1/II	
Guaranteed analysis	
IR Analysis	Conform

iso-Pentane

for analysis

Certified AR

packaging	product code
500 mL Glass bottle	P/1031/08
2.5 L Glass bottle	P/1031/17
C ₅ H ₁₂	ADR/RID: 3/I
CAS: 78-78-4	UN: 1265
MW: 72.15	HS-Nr: 29011000
Density at 20°C: 0.62	EINECS: 201-142-8
Boiling point: 30°C	Risk: R12, R51/53, R65, R66, R67
Boiling pressure: 760 mmHg	Safety: S9, S16, S29, S33, S61, S62
Melting point: -160°C	
Flash point: -51°C	

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Magnesium (Mg)	<0.1 ppm
Colour	<10 APHA	Manganese (Mn)	<0.02 ppm
Residue after evaporation	<50 ppm	Molybdenum (Mo)	<0.02 ppm
Water	<0.01%	Nickel (Ni)	<0.02 ppm
Aluminium (Al)	<0.1 ppm	Potassium (K)	<0.2 ppm
Barium (Ba)	<0.02 ppm	Sodium (Na)	<1 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Calcium (Ca)	<0.5 ppm	Titanium (Ti)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Total phosphorus (P)	<0.5 ppm
Cobalt (Co)	<0.02 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<0.2 ppm	Vanadium (V)	<0.02 ppm
Lead (Pb)	<0.05 ppm	Zinc (Zn)	<0.1 ppm
Lithium (Li)	<0.02 ppm	n-Pentane	<1%

Lot analysis on the label.

iso-Pentane

extra pure

SLR

packaging	product code
500 mL Glass bottle	P/1030/08
2.5 L Glass bottle	P/1030/17
5 L Metal can	P/1030/21
C ₅ H ₁₂	ADR/RID: 3/I
CAS: 78-78-4	UN: 1265
MW: 72.15	HS-Nr: 29011000
Density at 20°C: 0.62	EINECS: 201-142-8
Boiling point: 30°C	Risk: R12, R51/53, R65, R66, R67
Boiling pressure: 760 mmHg	Safety: S9, S16, S29, S33, S61, S62
Melting point: -160°C	
Flash point: -51°C	

Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Magnesium (Mg)	<2 ppm
Colour	<10 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<10 ppm
Water	<0.05%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<20 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm		

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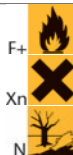
Pentane (mixed isomers) for HPLC



packaging	product code
1 L Glass bottle	P/1006/15
2.5 L Glass bottle	P/1006/17

C₅H₁₂
CAS: 109-66-0
MW: 72.15
Density at 20°C: 0.63
Boiling point: 36°C
Boiling pressure: 760 mmHg
Melting point: -130°C
Flash point: -49°C

ADR/RID: 3/II
UN: 1265
HS-Nr: 29011000
EINECS: 203-692-4
Risk: R12, R51/53, R65, R66, R67
Safety: S9, S16, S29, S33, S61, S62



Assay (GC): >95%

Guaranteed analysis

Acidity / Alkalinity <0.0002 meq/g Water <0.01%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.25 A.U. 230 nm <0.01 A.U.
210 nm <0.15 A.U. 240 nm <0.005 A.U.
220 nm <0.05 A.U. 250 nm <0.005 A.U.

Lot analysis on the label including an absorbance curve.
Filtered to 0.2 µm.

Pentane, (95% n-Pentane approx.) for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	P/1024/15
2.5 L Glass bottle	P/1024/17

C₅H₁₂
CAS: 109-66-0
MW: 72.15
Density at 20°C: 0.63
Boiling point: 36°C
Boiling pressure: 760 mmHg
Melting point: -130°C
Flash point: -49°C

ADR/RID: 3/II
UN: 1265
HS-Nr: 29011000
EINECS: 203-692-4
Risk: R12, R51/53, R65, R66, R67
Safety: S9, S16, S29, S33, S61, S62



Assay (GC): >95%

Guaranteed analysis

GC (ECD) Analysis Conform Residue after evaporation <2 ppm
GC (FID) Analysis Conform Water <0.02%
GC (NPD) analysis Conform

GC Analysis

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL heptachloroéoxide (ECD) and 5 pg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.

Temperature profile: (1) 50°C, 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5µl cold on the column.

n-Pentane for analysis

Certified AR



packaging	product code
1 L Glass bottle	P/1021/15
2.5 L Glass bottle	P/1021/17

C₅H₁₂
CAS: 109-66-0
MW: 72.15
Density at 20°C: 0.63
Boiling point: 36°C
Boiling pressure: 760 mmHg
Melting point: -130°C
Flash point: -49°C

ADR/RID: 3/II
UN: 1265
HS-Nr: 29011000
EINECS: 203-692-4
Risk: R12, R51/53, R65, R66, R67
Safety: S9, S16, S29, S33, S61, S62



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.0001 meq/g Magnesium (Mg) <0.1 ppm
Colour <10 APHA Potassium (K) <0.2 ppm
Residue after evaporation <20 ppm Sodium (Na) <1 ppm
Water <0.01% Total phosphorus (P) <0.5 ppm
Calcium (Ca) <0.5 ppm Total silicon (Si) <0.02 ppm
Copper (Cu) <0.05 ppm Total sulphur (S) <5 ppm
Iron (Fe) <0.2 ppm Zinc (Zn) <0.1 ppm
Lead (Pb) <0.05 ppm

Typical analysis

Aluminium (Al) <0.1 ppm Manganese (Mn) <0.02 ppm
Barium (Ba) <0.02 ppm Molybdenum (Mo) <0.02 ppm
Cadmium (Cd) <0.02 ppm Nickel (Ni) <0.02 ppm
Chromium (Cr) <0.02 ppm Strontium (Sr) <0.02 ppm
Cobalt (Co) <0.02 ppm Titanium (Ti) <0.02 ppm
Lithium (Li) <0.02 ppm Vanadium (V) <0.02 ppm

Lot analysis on the label.

n-Pentane extra pure

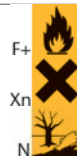
SLR



packaging	product code
500 mL Glass bottle	P/1020/08
2.5 L Glass bottle	P/1020/17
2.5 L Coated Glass Bottle	P/1020/PB17
5 L Metal can	P/1020/21
25 L Metal drum	P/1020/25

C₅H₁₂
CAS: 109-66-0
MW: 72.15
Density at 20°C: 0.63
Boiling point: 36°C
Boiling pressure: 760 mmHg
Melting point: -130°C
Flash point: -49°C

ADR/RID: 3/II
UN: 1265
HS-Nr: 29011000
EINECS: 203-692-4
Risk: R12, R51/53, R65, R66, R67
Safety: S9, S16, S29, S33, S61, S62



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.001 meq/g Magnesium (Mg) <2 ppm
Colour <10 APHA Potassium (K) <2 ppm
Residue after evaporation <50 ppm Sodium (Na) <10 ppm
Water <0.05% Total phosphorus (P) <2 ppm
Calcium (Ca) <5 ppm Total silicon (Si) <2 ppm
Copper (Cu) <2 ppm Total sulphur (S) <20 ppm
Iron (Fe) <5 ppm Zinc (Zn) <2 ppm
Lead (Pb) <2 ppm

see page 279 for suitable Tap & accessories.

Pentanedia

See Glutaraldehyde 50% solution, page 109



1-Pentanesulfonic acid sodium salt

Certified

for ion pair chromatography in electrochemical detection



packaging	product code
25 g Plastic jar	P/1039/46

C₅H₁₁NaO₃S
CAS: 22767-49-3
MW: 174.21
Melting point: >300°C

HS-Nr: 29041000
EINECS: 245-208-4
Risk: R36/38
Safety: S26, S28



Assay: >98%

Guaranteed analysis

Electrochemical test Conform

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm (sol. aqu. 0.25 M) <0.1 A.U. 230 nm (sol. aqu. 0.25 M) <0.03 A.U.
210 nm (sol. aqu. 0.25 M) <0.05 A.U. 240 nm (sol. aqu. 0.25 M) <0.02 A.U.
220 nm (sol. aqu. 0.25 M) <0.04 A.U. 260 nm (sol. aqu. 0.25 M) <0.02 A.U.

tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

1-Pentanesulfonic acid sodium salt for ion pair chromatography

HPLC	packaging	product code
	25 g Plastic jar	P/1038/46
	100 g Plastic jar	P/1038/48

$C_5H_{11}NaO_3S$
 CAS: 22767-49-3
 MW: 174.21
 Melting point: >300°C
 HS-Nr: 29041000
 EINECS: 245-208-4
 Risk: R36/38
 Safety: S26, S28



Assay: >98%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

200 nm (sol. aqu. 0.25 M)	<0.1 A.U.	230 nm (sol. aqu. 0.25 M)	<0.03 A.U.
210 nm (sol. aqu. 0.25 M)	<0.05 A.U.	240 nm (sol. aqu. 0.25 M)	<0.02 A.U.
220 nm (sol. aqu. 0.25 M)	<0.04 A.U.	260 nm (sol. aqu. 0.25 M)	<0.02 A.U.

Lot analysis on the label.

1-Pentanesulfonic acid sodium salt solution 0.1M for ion pair chromatography

HPLC	packaging	product code
	250 mL Glass bottle	P/1036/07

HS-Nr: 29041000

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

200 nm	<0.04 A.U.	240 nm	<0.008 A.U.
210 nm	<0.02 A.U.	250 nm	<0.008 A.U.
220 nm	<0.016 A.U.	260 nm	<0.008 A.U.
230 nm	<0.012 A.U.		

Lot analysis on the label.

iso-Pentanol See iso-Amyl alcohol, page 30



Pentan-1-ol for analysis

Certified AR

AR	packaging	product code
	2.5 L Coated Glass Bottle	P/1041/PB17

$C_5H_{12}O$
 CAS: 71-41-0
 MW: 88.15
 Density at 20°C: 0.81
 Boiling point: 137 to 139°C
 Boiling pressure: 760 mmHg
 Melting point: -78°C
 Flash point: 49°C
 ADR/RID: 3/III
 UN: 1105
 HS-Nr: 29051900
 EINECS: 200-752-1
 Risk: R10, R20, R37, R66
 Safety: S46



Assay (GC): >98.5%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Manganese (Mn)	<0.02 ppm
Colour	<10 APHA	Molybdenum (Mo)	<0.02 ppm
Residue after evaporation	<10 ppm	Nickel (Ni)	<0.05 ppm
Water	<0.2%	Potassium (K)	<0.1 ppm
Aluminium (Al)	<0.05 ppm	Sodium (Na)	<1 ppm
Barium (Ba)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Calcium (Ca)	<0.5 ppm	Total phosphorus (P)	<0.2 ppm
Chromium (Cr)	<0.05 ppm	Total silicon (Si)	<0.05 ppm
Cobalt (Co)	<0.02 ppm	Total sulphur (S)	<0.5 ppm
Copper (Cu)	<0.05 ppm	Vanadium (V)	<0.02 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.5 ppm
Lead (Pb)	<0.05 ppm	Iso-amyl acetate	<0.1%
Lithium (Li)	<0.02 ppm	Iso-amyl alcohol	<0.5%
Magnesium (Mg)	<0.1 ppm		

Lot analysis on the label.

Pentan-1-ol extra pure

SLR

Specified	packaging	product code
	500 mL Coated Glass Bottle	P/1040/PB08
	2.5 L Coated Glass Bottle	P/1040/PB17

$C_5H_{12}O$
 CAS: 71-41-0
 MW: 88.15
 Density at 20°C: 0.81
 Boiling point: 137 to 139°C
 Boiling pressure: 760 mmHg
 Melting point: -78°C
 Flash point: 49°C
 ADR/RID: 3/III
 UN: 1105
 HS-Nr: 29051900
 EINECS: 200-752-1
 Risk: R10, R20, R37, R66
 Safety: S46



Assay (GC): >98%

Guaranteed analysis

Acidity / Alkalinity	<0.005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<10 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<100 ppm	Sodium (Na)	<10 ppm
Water	<0.3%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm		

Pentan-2-ol (sec-Amyl alcohol) extra pure

SLR

Specified	packaging	product code
	500 mL Coated Glass Bottle	P/1080/PB08

$C_5H_{12}O$
 CAS: 6032-29-7
 MW: 88.15
 Density at 20°C: 0.8 to 0.82
 Boiling point: 118 to 119°C
 Boiling pressure: 760 mmHg
 Melting point: -50°C
 Flash point: 34°C
 ADR/RID: 3/III
 UN: 1105
 HS-Nr: 29051900
 EINECS: 227-907-6
 Risk: R10, R20, R37, R66
 Safety: S46



Assay (GC): >98%

1-Pentyl acetate See n-Amyl acetate, page 30



Pentyl alcohol See Pentan-1-ol, page 185



Pepsin powder extra pure

SLR

Specified	packaging	product code
	100 g Plastic jar	P/1120/48
	500 g Plastic jar	P/1120/53

HS-Nr: 38220000
 EINECS: 232-629-3

Peptone pure, For bacteriological work

packaging	product code
250 g Plastic jar	P/1160/50

HS-Nr: 35040000

Guaranteed analysis

IR Analysis Conform

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Perchloric acid 60% for HPLC

Certified



packaging	product code
-----------	--------------

100 mL Coated Glass Bottle

P/1290/PB05

HClO₄
CAS: 7601-90-3
MW: 100.46
Density at 20°C: 1.66
Boiling point: 203°C
Boiling pressure: 760 mmHg
Melting point: -18°C

Flash point: 113°C
ADR/RID: 5.1(8)/I
UN: 1873
HS-Nr: 28111900
EINECS: 231-512-4
Risk: R5, R8, R22, R35
Safety: S23, S26, S36, S45



Assay: 60 to 62%

Guaranteed analysis

Residue after evaporation <30 ppm Lead (Pb) <0.5 ppm
Iron (Fe) <1 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.01 A.U.

Perchloric acid 60% is equivalent to a strength of 9.2 M (9.2 N).

Lot analysis on the label.

Filtered to 0.2 µm.

Perchloric acid 60% d=1.53 for analysis

Certified AR



packaging	product code
-----------	--------------

500 mL Coated Glass Bottle

P/1240/PB08

2.5 L Coated Glass Bottle

P/1240/PB17

HClO₄
CAS: 7601-90-3
MW: 100.46
Density at 20°C: 1.66
Boiling point: 203°C
Boiling pressure: 760 mmHg
Melting point: -18°C

Flash point: 113°C
ADR/RID: 5.1(8)/I
UN: 1873
HS-Nr: 28111900
EINECS: 231-512-4
Risk: R5, R8, R22, R35
Safety: S23, S26, S36, S45



Assay: 60 to 62%

Guaranteed analysis

Colour <10 APHA	Potassium (K) <0.5 ppm
Calcium (Ca) <1 ppm	Sodium (Na) <5 ppm
Chlorate <0.002 %	Total chloride (Cl) <0.0005 %
Chromium (Cr) <0.2 ppm	Total nitrogen (N) <20 ppm
Copper (Cu) <0.2 ppm	Total phosphorus (P) <2 ppm
Iron (Fe) <1 ppm	Total silicon (Si) <1 ppm
Lead (Pb) <0.2 ppm	Total sulphur (S) <5 ppm
Magnesium (Mg) <0.5 ppm	Zinc (Zn) <0.1 ppm
Nickel (Ni) <0.1 ppm	

Typical analysis

Aluminium (Al) <0.5 ppm	Manganese (Mn) <0.02 ppm
Arsenic (As) <0.1 ppm	Molybdenum (Mo) <0.05 ppm
Barium (Ba) <0.05 ppm	Silver (Ag) <0.02 ppm
Cadmium (Cd) <0.05 ppm	Strontium (Sr) <0.02 ppm
Cobalt (Co) <0.05 ppm	Titanium (Ti) <0.02 ppm
Lithium (Li) <0.02 ppm	Vanadium (V) <0.02 ppm

Perchloric acid 60% is equivalent to a strength of 9.2 M (9.2 N).

Lot analysis on the label.

Perchloric acid 60% extra pure

SLR



packaging	product code
-----------	--------------

500 mL Coated Glass Bottle

P/1200/PB08

2.5 L Coated Glass Bottle

P/1200/PB17

HClO₄
CAS: 7601-90-3
MW: 100.46
Density at 20°C: 1.66
Boiling point: 203°C
Boiling pressure: 760 mmHg
Melting point: -18°C

Flash point: 113°C
ADR/RID: 5.1(8)/I
UN: 1873
HS-Nr: 28111900
EINECS: 231-512-4
Risk: R5, R8, R22, R35
Safety: S23, S26, S36, S45



Assay: >60%

Guaranteed analysis

Calcium (Ca) <10 ppm	Potassium (K) <5 ppm
Chromium (Cr) <2 ppm	Sodium (Na) <50 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.001%
Iron (Fe) <10 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <5 ppm
Magnesium (Mg) <5 ppm	Total sulphur (S) <50 ppm
Nickel (Ni) <2 ppm	Zinc (Zn) <5 ppm

Perchloric acid 60% is equivalent to a strength of 9.2 M (9.2 N).

Perchloric acid 67-71%

NEW

OPTIMA



packaging	product code
-----------	--------------

250 mL Teflon FEP bottle

P/1295/07

500 mL Teflon FEP bottle

P/1295/08

1 L Teflon FEP bottle

P/1295/15

HClO₄
CAS: 7601-90-3
MW: 100.46
Density at 20°C: 1.66
Boiling point: 203°C
Boiling pressure: 760 mmHg
Melting point: -18°C

Flash point: 113°C
ADR/RID: 5.1(8)/I
UN: 1873
HS-Nr: 28111980
Risk: R5, R8, R35
Safety: S23, S26, S36, S45



Assay: 65 to 71%

Guaranteed analysis

Aluminium (Al) <100 ppt	Nickel (Ni) <30 ppt
Antimony (Sb) <50 ppt	Niobium (Nb) <10 ppt
Arsenic (As) <100 ppt	Palladium (Pd) <10 ppt
Barium (Ba) <20 ppt	Platinum (Pt) <1 ppt
Beryllium (Be) <5 ppt	Potassium (K) <20 ppt
Bismuth (Bi) <2 ppt	Praséodymium (Pr) <1 ppt
Cadmium (Cd) <1 ppt	Rhodium (Rh) <5 ppt
Calcium (Ca) <100 ppt	Rubidium (Rb) <10 ppt
Cerium (Ce) <1 ppt	Samarium (Sm) <1 ppt
Cesium (Cs) <1 ppt	Scandium (Sc) <100 ppt
Cobalt (Co) <5 ppt	Silver (Ag) <5 ppt
Copper (Cu) <20 ppt	Sodium (Na) <50 ppt
Dysprosium (Dy) <1 ppt	Strontium (Sr) <1 ppt
Erbium (Er) <1 ppt	Tantalum (Ta) <30 ppt
Europium (Eu) <1 ppt	Tellurium (Te) <10 ppt
Gadolinium (Gd) <1 ppt	Terbium (Tb) <1 ppt
Gallium (Ga) <5 ppt	Thallium (Tl) <1 ppt
Hafnium (Hf) <1 ppt	Thorium (Th) <0.1 ppt
Holmium (Ho) <1 ppt	Thulium (Tm) <1 ppt
Indium (In) <1 ppt	Tin (Sn) <20 ppt
Iron (Fe) <70 ppt	Titanium (Ti) <20 ppt
Lanthanum (La) <1 ppt	Tungsten (W) <20 ppt
Lead (Pb) <2 ppt	Uranium (U) <0.1 ppt
Lithium (Li) <1 ppt	Vanadium (V) <20 ppt
Lutetium (Lu) <1 ppt	Ytterbium (Yb) <1 ppt
Magnesium (Mg) <20 ppt	Yttrium (Y) <1 ppt
Manganese (Mn) <5 ppt	Zinc (Zn) <20 ppt
Molybdenum (Mo) <10 ppt	Zirconium (Zr) <3 ppt
Neodymium (Nd) <1 ppt	

Perchloric acid 67-71% for trace metal analysis

NEW

Trace metal grade



packaging	product code
-----------	--------------

500 mL Coated Glass Bottle

P/1292/PB08

1 L Coated Glass Bottle

P/1292/PB15

HClO₄
CAS: 7601-90-3
MW: 100.46
Density at 20°C: 1.66
Boiling point: 203°C
Boiling pressure: 760 mmHg
Melting point: -18°C

Flash point: 113°C
ADR/RID: 5.1(8)/I
UN: 1873
HS-Nr: 28111980
Risk: R5, R8, R35
Safety: S23, S26, S36, S45



Assay: 65 to 71%

Guaranteed analysis

Colour <10 APHA	Cerium (Ce) <0.5 ppb
Aluminium (Al) <1 ppb	Cesium (Cs) <0.5 ppb
Antimony (Sb) <0.1 ppb	Cobalt (Co) <0.1 ppb
Arsenic (As) <0.5 ppb	Copper (Cu) <0.5 ppb
Barium (Ba) <0.1 ppb	Dysprosium (Dy) <0.5 ppb
Beryllium (Be) <0.1 ppb	Erbium (Er) <0.5 ppb
Bismuth (Bi) <0.1 ppb	Europium (Eu) <0.5 ppb
Cadmium (Cd) <0.1 ppb	Gadolinium (Gd) <0.5 ppb
Calcium (Ca) <1 ppb	

Gallium (Ga)	<0.5 ppb	Rubidium (Rb)	<0.5 ppb
Hafnium (Hf)	<0.5 ppb	Samarium (Sm)	<0.5 ppb
Holmium (Ho)	<0.5 ppb	Scandium (Sc)	<0.5 ppb
Indium (In)	<0.5 ppb	Silver (Ag)	<0.1 ppb
Iron (Fe)	<0.5 ppb	Sodium (Na)	<0.5 ppb
Lanthanum (La)	<0.5 ppb	Strontium (Sr)	<0.1 ppb
Lead (Pb)	<0.1 ppb	Tantalum (Ta)	<1 ppb
Lithium (Li)	<0.1 ppb	Tellurium (Te)	<0.5 ppb
Lutetium (Lu)	<0.5 ppb	Terbium (Tb)	<0.5 ppb
Magnesium (Mg)	<0.5 ppb	Thallium (Tl)	<0.5 ppb
Manganese (Mn)	<0.1 ppb	Thorium (Th)	<0.1 ppb
Molybdenum (Mo)	<0.1 ppb	Thulium (Tm)	<0.5 ppb
Neodymium (Nd)	<0.5 ppb	Tin (Sn)	<0.1 ppb
Nickel (Ni)	<0.1 ppb	Titanium (Ti)	<0.1 ppb
Niobium (Nb)	<0.5 ppb	Tungsten (W)	<0.5 ppb
Palladium (Pd)	<0.5 ppb	Uranium (U)	<0.1 ppb
Platinum (Pt)	<0.5 ppb	Vanadium (V)	<0.5 ppb
Potassium (K)	<0.5 ppb	Ytterbium (Yb)	<0.5 ppb
Praseodymium (Pr)	<0.5 ppb	Yttrium (Y)	<0.5 ppb
Rhodium (Rh)	<0.5 ppb	Zinc (Zn)	<0.5 ppb

Perchloric acid solution 0.05 M in propan-1-ol pure, ready to use

packaging	product code
2.5 L Glass bottle	J/9027/17

Density at 20°C: 0.79

Flash point: 12°C

HS-Nr: 38220000

Risk: R8, R36/38

Guaranteed analysis

Water <0.1% m

Manufactured to a tolerance of ± 0.2%.

See the full range of Standard Volumetric solution page 266.

Perchloroethylene See Tetrachloroethylene, page 283



Perchloric acid 70% d=1.67 for analysis

Certified AR

packaging	product code
500 mL Coated Glass Bottle	P/1280/PB08
1 L Coated Glass Bottle	P/1280/PB15
2.5 L Coated Glass Bottle	P/1280/PB17

HClO_4
CAS: 7601-90-3
MW: 100.46
Density at 20°C: 1.66
Boiling point: 203°C
Boiling pressure: 760 mmHg
Melting point: -18°C
Flash point: 113°C
ADR/RID: 5.1(8)/I
UN: 1873
HS-Nr: 28111900
EINECS: 231-512-4
Risk: R5, R8, R22, R35
Safety: S23, S26, S36, S45

Assay: 68 to 72%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.2 ppm
Calcium (Ca)	<1 ppm	Sodium (Na)	<2 ppm
Chlorate	<0.001 %	Total chloride (Cl)	<0.0001 %
Chromium (Cr)	<0.2 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<0.2 ppm	Total phosphorus (P)	<2 ppm
Iron (Fe)	<1 ppm	Total silicon (Si)	<1 ppm
Lead (Pb)	<0.2 ppm	Total sulphur (S)	<5 ppm
Magnesium (Mg)	<0.5 ppm	Zinc (Zn)	<0.5 ppm
Nickel (Ni)	<0.1 ppm		

Typical analysis

Aluminium (Al)	<0.5 ppm	Manganese (Mn)	<0.02 ppm
Arsenic (As)	<0.2 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.05 ppm	Silver (Ag)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Perchloric acid 70% is equivalent to a strength of 11.6 M (11.6 N).

Lot analysis on the label.

Perchloric acid solution 0.1M (0.1N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/5820/PB15
2.5 L Plastic bottle	J/5820/PB17

ADR/RID: 3(8)/II
UN: 2920
HS-Nr: 28111980
Risk: R10, R35
Safety: S23, S26, S45

Guaranteed analysis

Water <0.1%

Manufactured to a tolerance of ± 0.2%.

See the full range of Standard Volumetric solution page 266.

Periodic acid for analysis

Certified AR



packaging	product code
100 g Plastic jar	P/1322/48

H_5IO_6
CAS: 10450-60-9
MW: 227.94
Melting point: 122°C
ADR/RID: 5.1(8)/II
UN: 3085
HS-Nr: 28111900
EINECS: 233-937-0
Risk: R8, R34
Safety: S26, S36, S28

Assay: >99.5%

Guaranteed analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<2 ppm	Potassium (K)	<20 ppm
Calcium (Ca)	<10 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<5 ppm	Sodium (Na)	<50 ppm
Cobalt (Co)	<2 ppm	Strontium (Sr)	<2 ppm
Copper (Cu)	<5 ppm	Titanium (Ti)	<1 ppm
Iodide	<0.001%	Total nitrogen (N)	<50 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<10 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Petroleum ether 30-40°C for analysis, n-hexane < 0.1%

Certified AR



packaging	product code
1 L Glass bottle	P/1720/15
2.5 L Glass bottle	P/1720/17

CAS: 64742-49-0
Density at 20°C: 0.62 to 0.64
Boiling point: 80 to 110°C
Melting point: -40°C
Flash point: -30°C
ADR/RID: 3/II
UN: 1268
HS-Nr: 27101125
EINECS: 232-453-7
Risk: R12, R51/53, R65, R66, R67
Safety: S9, S16, S29, S33, S61, S62

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Lead (Pb)	<0.05 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.05 ppm
Number of bromine	<2	Potassium (K)	<0.2 ppm
Residue after evaporation	<10 ppm	Sodium (Na)	<0.5 ppm
Water	<0.01%	Total phosphorus (P)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.1 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.05 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.05 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Manganese (Mn)	<0.02 ppm	Vanadium (V)	<0.01 ppm

Petroleum ether 30-40°C
for analysis, low in aromatic

Certified AR



packaging	product code
2.5 L Glass bottle	P/1960/17
180 L Metal drum	P/1960/99

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.62 to 0.64 HS-Nr: 27101190
 Boiling point: 80 to 110°C EINECS: 232-453-7
 Melting point: -40°C Risk: R12, R51/53, R65, R66, R67
 Flash point: -30°C Safety: S9, S16, S29, S33, S61, S62
 ADR/RID: 3/II

**Guaranteed analysis**

Acidity / Alkalinity	<0.00003 meq/g	Total sulphur (S)	<5 ppm
Residue after evaporation	<10 ppm	Aromatic Hydrocarbons	<0.01%
Water	<0.02%		

Petroleum ether 30-40°C
extra pure

SLR



packaging	product code
2.5 L Glass bottle	P/1400/17
5 L Metal can	P/1400/21
25 L Metal drum	P/1400/25

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.63 to 0.63 HS-Nr: 38220000
 Boiling point: 80 to 110°C EINECS: 232-453-7
 Melting point: -40°C Risk: R12, R51/53, R65, R66, R67
 Flash point: -30°C Safety: S9, S16, S29, S33, S61, S62
 ADR/RID: 3/II

**Guaranteed analysis**

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Number of bromine	<5	Potassium (K)	<2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<5 ppm
Water	<0.03%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Petroleum ether 40-60°C
for residue and pesticide analysis

Distol



packaging	product code
1 L Glass bottle	P/2092/15
2.5 L Glass bottle	P/2092/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.65 HS-Nr: 27101125
 Boiling point: 36 to 70°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R51/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33, S61, S62
 Flash point: -45°C
 ADR/RID: 3/II

**Guaranteed analysis**

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.02%
GC (NPD) analysis	Conform		

Petroleum ether 40-60°C
extra dry, for synthesis


packaging	product code
2.5 L Glass bottle	P/2082/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.65 HS-Nr: 27101125
 Boiling point: 36 to 70°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R51/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33, S61, S62
 Flash point: -45°C
 ADR/RID: 3/II

**Guaranteed analysis**

Residue after evaporation	<2 ppm	Water	<0.01%
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Petroleum ether 40-60°C
for analysis, n-hexane < 2%

Certified AR



packaging	product code
1 L Glass bottle	P/1760/15
2.5 L Glass bottle	P/1760/17
5 L Metal can	P/1760/21
25 L Metal drum	P/1760/25
200 L Metal drum	P/1760/27

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.64 to 0.66 HS-Nr: 27101190
 Boiling point: 36 to 70°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R51/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33, S61, S62
 Flash point: -45°C
 ADR/RID: 3/II

**Guaranteed analysis**

Acidity / Alkalinity	<0.0001 meq/g	Magnesium (Mg)	<0.05 ppm
Colour	<10 APHA	Potassium (K)	<0.2 ppm
Number of bromine	<2	Sodium (Na)	<0.5 ppm
Residue after evaporation	<10 ppm	Tin (Sn)	<0.02 ppm
Water	<0.01%	Total phosphorus (P)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Lead (Pb)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.01 ppm
Manganese (Mn)	<0.05 ppm		

see page 279 for suitable Tap & accessories.

Petroleum ether 40-60°C
for analysis, low in aromatic

Certified AR



packaging	product code
2.5 L Glass bottle	P/2000/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.64 to 0.66 HS-Nr: 27101190
 Boiling point: 36 to 70°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R51/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33, S61, S62
 Flash point: -45°C
 ADR/RID: 3/II

**Guaranteed analysis**

Acidity / Alkalinity	<0.00003 meq/g	Water	<0.02%
Residue after evaporation	<10 ppm	Total sulphur (S)	<5 ppm

Petroleum ether 40-60°C
extra pure

SLR



packaging	product code
2.5 L Glass bottle	P/1440/17
2.5 L Coated Glass Bottle	P/1440/PB17
5 L Metal can	P/1440/21
25 L Metal drum	P/1440/25
200 L Metal drum	P/1440/27

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.64 to 0.66 HS-Nr: 27101125
 Boiling point: 36 to 70°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R51/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33, S61, S62
 Flash point: -45°C
 ADR/RID: 3/II

**Guaranteed analysis**

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Number of bromine	<5	Potassium (K)	<2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<5 ppm
Water	<0.03%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Petroleum ether 60-80°C for residue and pesticide analysis

Distol

packaging	product code
1 L Glass bottle	P/2094/15
2.5 L Glass bottle	P/2094/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.69 HS-Nr: 27101125
 Boiling point: 60 to 95°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -20°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62

F
 N
 Xn

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.02%
GC (NPD) analysis	Conform		

Petroleum ether 60-80°C for analysis, low in aromatic

Certified AR

packaging	product code
2.5 L Glass bottle	P/2040/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.67 to 0.67 HS-Nr: 27101125
 Boiling point: 60 to 95°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -20°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62

F
 N
 Xn

Guaranteed analysis

Acidity / Alkalinity	<0.0003 meq/g	Total sulphur (S)	<5 ppm
Residue after evaporation	<10 ppm	Aromatic Hydrocarbons	<0.05%
Water	<0.02%		

Petroleum ether 60-80°C extra dry, for synthesis

packaging	product code
500 mL Coated Glass Bottle	P/2084/PB08
2.5 L Glass bottle	P/2084/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.69 HS-Nr: 27101125
 Boiling point: 60 to 95°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -20°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62

F
 N
 Xn

Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.01%
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Petroleum ether 60-80°C extra pure

SLR

packaging	product code
1 L Glass bottle	P/1480/15
2.5 L Glass bottle	P/1480/17
5 L Metal can	P/1480/21
25 L Metal drum	P/1480/25
200 L Metal drum	P/1480/27

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.67 to 0.67 HS-Nr: 27101125
 Boiling point: 60 to 95°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -20°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62

F
 N
 Xn

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Number of bromine	<5	Potassium (K)	<2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<5 ppm
Water	<0.03%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Petroleum ether 60-80°C for analysis, n-hexane < 50%

Certified AR

packaging	product code
1 L Glass bottle	P/1800/15
2.5 L Glass bottle	P/1800/17
2.5 L Coated Glass Bottle	P/1800/PB17
200 L Metal drum	P/1800/27

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.66 to 0.68 HS-Nr: 27101125
 Boiling point: 60 to 95°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -20°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62

F
 N
 Xn

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Magnesium (Mg)	<0.05 ppm
Colour	<10 APHA	Potassium (K)	<0.2 ppm
Number of bromine	<2	Sodium (Na)	<0.5 ppm
Residue after evaporation	<10 ppm	Tin (Sn)	<0.02 ppm
Water	<0.01%	Total phosphorus (P)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Lead (Pb)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.01 ppm
Manganese (Mn)	<0.05 ppm		

see page 279 for suitable Tap & accessories.

Petroleum ether 80-100°C for analysis, n-hexane < 20%

Certified AR

packaging	product code
2.5 L Glass bottle	P/1840/17
200 L Metal drum	P/1840/27

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.69 to 0.71 HS-Nr: 27101125
 Boiling point: 80 to 110°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -020°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62

F
 N
 Xn

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Magnesium (Mg)	<0.05 ppm
Colour	<10 APHA	Potassium (K)	<0.2 ppm
Number of bromine	<2	Sodium (Na)	<0.5 ppm
Residue after evaporation	<10 ppm	Total phosphorus (P)	<0.5 ppm
Water	<0.01%	Total silicon (Si)	<0.05 ppm
Calcium (Ca)	<0.5 ppm	Total sulphur (S)	<0.001%
Copper (Cu)	<0.05 ppm	Vanadium (V)	<0.01 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.02 ppm
Lead (Pb)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.05 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Manganese (Mn)	<0.05 ppm		

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Petroleum ether 80-100°C

SLR

packaging	product code
2.5 L Glass bottle	P/1520/17
5 L Metal can	P/1520/21
25 L Metal drum	P/1520/25

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.69 to 0.71 HS-Nr: 27101125
 Boiling point: 80 to 110°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R48/20, R51/53,
 Melting point: -40°C R62, R65, R67
 Flash point: -020°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S36/37, S61, S62



Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Number of bromine	<5	Potassium (K)	<2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<5 ppm
Water	<0.03%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Petroleum ether 100-120°C

Certified AR

packaging	product code
2.5 L Glass bottle	P/1880/17
25 L Metal drum	P/1880/25
200 L Metal drum	P/1880/27

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.7 to 0.75 HS-Nr: 27101125
 Boiling point: 100 to 140°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R50/53, R65, R67
 Melting point: -30°C Safety: S9, S16, S29, S33,
 Flash point: -20°C S60, S61, S62
 ADR/RID: 3/II



Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Lead (Pb)	<0.05 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.05 ppm
Number of bromine	<2	Potassium (K)	<0.2 ppm
Residue after evaporation	<10 ppm	Sodium (Na)	<0.5 ppm
Water	<0.01%	Total phosphorus (P)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.1 ppm

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.05 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Manganese (Mn)	<0.05 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Petroleum ether 100-120°C

SLR

packaging	product code
1 L Glass bottle	P/1560/15
2.5 L Glass bottle	P/1560/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.715 to 0.735 HS-Nr: 27101125
 Boiling point: 100 to 140°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R50/53, R65, R67
 Melting point: -30°C Safety: S9, S16, S29, S33,
 Flash point: -20°C S60, S61, S62
 ADR/RID: 3/II



Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Number of bromine	<5	Potassium (K)	<2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<5 ppm
Water	<0.03%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

Petroleum ether over 120°C

Certified AR

packaging	product code
2.5 L Glass bottle	P/1920/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.75 to 0.75 HS-Nr: 27101125
 Boiling point: 40 to 60°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R50/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33,
 Flash point: -30°C S60, S61, S62
 ADR/RID: 3/II



Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Lead (Pb)	<0.05 ppm
Colour	<8 APHA	Magnesium (Mg)	<0.05 ppm
Number of bromine	<1.6	Potassium (K)	<0.2 ppm
Residue after evaporation	<10 ppm	Sodium (Na)	<0.5 ppm
Water	<0.01%	Total phosphorus (P)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<0.2 ppm		

Typical analysis

Aluminium (Al)	<0.1 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Selenium (Se)	<0.05 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Titanium (Ti)	<0.01 ppm
Manganese (Mn)	<0.05 ppm	Vanadium (V)	<0.01 ppm

Lot analysis on the label.

Petroleum ether > 120°C

SLR

packaging	product code
2.5 L Glass bottle	P/1600/17

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.75 to 0.75 HS-Nr: 27101190
 Boiling point: 40 to 60°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R38, R50/53, R65, R67
 Melting point: -40°C Safety: S9, S16, S29, S33,
 Flash point: -30°C S60, S61, S62
 ADR/RID: 3/II



Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Number of bromine	<5	Potassium (K)	<2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<5 ppm
Water	<0.03%	Total phosphorus (P)	<1 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<1 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<50 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

Petroleum ether (petroleum spirit with <15% n-hexane)

pure

packaging	product code
2.5 L Glass bottle	P/1360/17
25 L Metal drum	P/1360/25

CAS: 64742-49-0 UN: 1268
 Density at 20°C: 0.69 to 0.71 HS-Nr: 27101125
 Boiling point: 80 to 110°C EINECS: 232-453-7
 Boiling pressure: 760 mmHg Risk: R11, R36/38, R45, R51/53,
 Melting point: -40°C R65, R66, R67
 Flash point: -020°C Safety: S9, S16, S29, S33,
 ADR/RID: 3/II S61, S62



see page 279 for suitable Tap & accessories.

Reagents, Solvents & Volumetric solutions conform to the European Pharmacopeia (Eur.Ph), British (BP) & US (USP) NEW SPEC.

designation	EP	BP	USP	packsize	package type	product code	page
Acetic acid glacial 99-100%	●	●	●	1 L	Plastic bottle	A/0360/PB15	2
	●	●	●	2.5 L	Plastic bottle	A/0360/PB17	2
	●	●	●	25 L	Metal drum	A/0360/25	2
Acetone	●			1 L	Glass bottle	A/0600/15	4
	●			2.5 L	Glass bottle	A/0600/17	4
	●				Coated Glass Bottle	A/0600/PB17	4
	●				Plastic bottle	A/0600/PC17	4
	●			5 L	Metal can	A/0600/21	4
	●				Plastic bottle	A/0600/PC21	4
	●			25 L	Metal drum	A/0600/25	4
	●			200 L	Metal drum	A/0600/27	4
Acetonitrile	●			1 L	Glass bottle	A/0627/15	6
	●			2.5 L	Glass bottle	A/0627/17	6
	●				Coated Glass Bottle	A/0627/PB17	6
	●			5 L	Aluminium drum	A/0627/21	6
	●			200 L	Stainless steel drum	A/0627/27SS	6
Aluminium chloride hexahydrate	●	●	●	500 g	Plastic jar	A/1960/53	14
Ammonium chloride	●	●		500 g	Plastic jar	A/3920/53	22
	●	●		1 kg	Plastic jar	A/3920/60	22
	●	●		2 kg	Plastic jar	A/3920/61	22
	●	●		5 kg	Plastic drum	A/3920/65	22
	●	●		25 kg	Fibre Keg	A/3920/70	22
Ammonium thiocyanate solution 0.1M (0.1N)	●	●	●	1 L	Plastic bottle	J/1500/PB15	30
	●	●	●	2.5 L	Plastic bottle	J/1500/PB17	30
Benzyl alcohol	●	●	●	2.5 L	Coated Glass Bottle	B/2550/PB17	39
	●	●	●	500 mL	Glass bottle	B/2550/08	39
Boric acid	●			500 g	Plastic jar	B/3750/53	41
	●			1 kg	Plastic jar	B/3750/60	41
	●			5 kg	Plastic drum	B/3750/65	41
Boric acid	●			500 g	Plastic jar	B/3760/53	41
	●			1 kg	Plastic jar	B/3760/60	41
	●			5 kg	Plastic drum	B/3760/65	41
	●			25 kg	Fibre Keg	B/3760/70	41
Calcium carbonate	●	●		1 kg	Plastic jar	C/1040/60	56
	●	●		3 kg	Plastic jar	C/1040/63	56
	●	●		5 kg	Plastic drum	C/1040/65	56
Calcium gluconate	●		●	500 g	Plastic jar	C/1610/53	57
Calcium lactate pentahydrate	●	●	●	500 g	Plastic jar	C/1820/53	57
Cerium(IV) sulfate solution 0.1, (0.1N)	●	●		1 L	Glass bottle	J/3000/15	61
Cerium(IV) sulfate solution 0.1M (0.1N)	●	●		2.5 L	Glass bottle	J/3000/17	61
Chloral hydrate	●	●		500 g	Plastic jar	C/4280/53	63
	●	●		10 kg	Plastic screw top Keg	C/4280/68	63
Chloramine-T Sodium salt	●	●	●	250 g	Plastic jar	C/4320/50	63
	●	●	●	500 g	Plastic jar	C/4320/53	63
Citric acid, anhydrous	●	●	●	500 g	Plastic jar	C/6240/53	69
Citric acid monohydrate	●		●	500 g	Plastic jar	C/6200/53	70
	●		●		Plastic jar	C/6200/53	70
	●		●	1 kg	Plastic jar	C/6200/60	70
	●		●		Plastic jar	C/6200/60	70
	●		●	2.5 kg	Plastic jar	C/6200/62	70
	●		●		Plastic jar	C/6200/62	70
	●		●	5 kg	Plastic drum	C/6200/65	70
	●		●		Plastic drum	C/6200/65	70
	●		●	25 kg	Fibre Keg	C/6200/70	70
	●		●		Fibre Keg	C/6200/70	70
	●			1 L	Glass bottle	D/2450/15	86
	●				Coated Glass Bottle	D/2450/PB15	86
Diethyl ether stabilized with BHT	●			2.5 L	Glass bottle	D/2450/17	86
	●				Coated Glass Bottle	D/2450/PB17	86
	●			5 L	Metal can	D/2450/21	86
	●						

Reagents, Solvents & Volumetric solutions conform to the European Pharmacopeia (Eur.Ph), British (BP) & US (USP) NEW SPEC.

designation	EP	BP	USP	packsize	package type	product code	page
Diethyl ether stabilized with BHT	●			25 L	Metal drum	D/2450/25	86
	●			200 L	Metal drum	D/2450/27	86
	●			500 mL	Coated Glass Bottle	D/2450/PB08	86
Ethanol absolute	●	●	●	1 L	Glass bottle	E/0650DF/15	96
	●	●	●	2.5 L	Glass bottle	E/0650DF/17	96
	●	●	●		Plastic bottle	E/0650DF/C17	96
	●	●	●	5 L	Metal can	E/0650DF/21	96
	●	●	●	10 L	Plastic drum	E/0650DF/24	96
	●	●	●	25 L	Metal drum	E/0650DF/25	96
	●	●	●	205 L	Metal drum	E/0650DF/28	96
Ethanol			●	1 L	Glass bottle	E/0550DF/15	97
			●	2.5 L	Glass bottle	E/0550DF/17	97
			●		Plastic bottle	E/0550DF/C17	97
			●	5 L	Metal can	E/0550DF/21	97
			●	25 L	Metal drum	E/0550DF/25	97
Ethanol 96% v/v	●	●	●	2.5 L	Glass bottle	E/0555DF/17	97
	●	●	●		Plastic bottle	E/0555DF/C17	97
	●	●	●	5 L	Metal can	E/0555DF/21	97
	●	●	●	25 L	Metal drum	E/0555DF/25	97
Ethylenediaminetetraacetic acid disodium salt dihydrate	●	●		100 g	Plastic jar	D/0700/48	100
	●	●		250 g	Plastic jar	D/0700/50	100
	●	●		500 g	Plastic jar	D/0700/53	100
	●	●		1 kg	Plastic jar	D/0700/60	100
	●	●		10 kg	Plastic screw top Keg	D/0700/68	100
	●	●		25 kg	Fibre Keg	D/0700/70	100
Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N)	●	●		1 L	Plastic bottle	J/3700/15	101
	●	●		2.5 L	Plastic bottle	J/3700/17	101
	●	●		10 L	Cubitainer	J/3700/24	101
Gelatine	●			500 g	Plastic jar	G/0150/53	108
D(+)-Glucose anhydrous	●	●	●	500 g	Plastic jar	G/0500/53	108
	●	●	●	1 kg	Plastic jar	G/0500/60	108
	●	●	●	2 kg	Plastic jar	G/0500/61	108
	●	●	●	5 kg	Plastic drum	G/0500/65	108
	●	●	●	25 kg	Fibre Keg	G/0500/70	108
	●	●	●				
D(+)-Glucose monohydrate	●	●		1 kg	Plastic jar	G/0400/60	109
Hydrochloric acid solution 0.1M (0.1N)	●	●		1 L	Plastic bottle	J/4350/15	120
	●	●		2.5 L	Plastic bottle	J/4350/17	120
	●	●		5 L	Plastic bottle	J/4350/21	120
	●	●		10 L	Cubitainer	J/4350/24	120
Hydrochloric acid solution 1M (1N)	●	●	●	1 L	Plastic bottle	J/4320/15	121
	●	●	●	2.5 L	Plastic bottle	J/4320/17	121
	●	●	●	5 L	Plastic bottle	J/4320/21	121
	●	●	●	10 L	Cubitainer	J/4320/24	121
Hydrochloric acid solution 2M (2N)	●	●		1 L	Plastic bottle	J/4315/15	121
	●	●		2.5 L	Plastic bottle	J/4315/17	121
Iodine solution 0.05M (0.1N)	●	●	●	1 L	Glass bottle	J/4410/15	130
	●	●	●	2.5 L	Glass bottle	J/4410/17	130
Iodine solution 0.5M (1N)	●	●		1 L	Coated Glass Bottle	J/4400/PB15	130
	●	●		2.5 L	Coated Glass Bottle	J/4400/PB17	130
	●	●		500 mL	Coated Glass Bottle	J/4400/PB08	130
Lactic acid	●			2.5 L	Plastic bottle	L/0150/PB17	141
	●			500 mL	Plastic bottle	L/0150/PB08	141
Magnesium carbonate pentahydrate	●	●		500 g	Plastic jar	M/0450/53	152
Magnesium carbonate pentahydrate	●	●		500 g	Plastic jar	M/0500/53	152
Magnesium chloride hexahydrate	●	●		500 g	Plastic jar	M/0600/53	152
	●	●		1 kg	Plastic jar	M/0600/60	152
	●	●		2 kg	Plastic jar	M/0600/61	152
	●	●		5 kg	Plastic drum	M/0600/65	152
	●	●		500 g	Plastic jar	M/0850/53	153
Magnesium oxide	●	●					
Magnesium oxide	●	●		1 kg	Plastic drum	M/0850/60	153
Magnesium oxide	●	●	●	500 g	Plastic jar	M/0800/53	153
Magnesium stearate	●	●	●	500 g	Plastic jar	M/0955/53	153
Magnesium sulfate heptahydrate	●	●	●	1 kg	Plastic jar	M/1000/60	154
	●	●	●	2.5 kg	Plastic jar	M/1000/62	154
	●	●	●	5 kg	Plastic drum	M/1000/65	154
Mannitol	●	●		500 g	Plastic jar	M/2405/53	156

Reagents, Solvents & Volumetric solutions conform to the European Pharmacopeia (Eur.Ph), British (BP) & US (USP) NEW SPEC

designation	EP	BP	USP	packsize	package type	product code	page
Nitric acid solution 1M (1N)				1 L	Plastic bottle	J/5550/PB15	177
				2.5 L	Plastic bottle	J/5550/PB17	177
				10 L	Cubitainer	J/5550/24	177
Phenol detached crystals				500 g	Plastic jar	P/2360/53	195
				1 kg	Plastic jar	P/2360/60	195
				2 kg	Plastic jar	P/2360/61	195
				25 kg	Fibre Keg	P/2360/70	195
Potassium carbonate anhydrous				250 g	Plastic jar	P/4120/50	204
				500 g	Plastic jar	P/4120/53	204
				1 kg	Plastic jar	P/4120/60	204
				2.5 kg	Plastic jar	P/4120/62	204
Potassium chloride				500 g	Plastic jar	P/4240/53	205
				1 kg	Plastic jar	P/4240/60	205
				2.5 kg	Plastic jar	P/4240/62	205
				5 kg	Plastic jar	P/4240/65	205
tri-Potassium citrate				500 g	Plastic jar	P/4442/53	205
Potassium dichromate solution 0.0167M (0.1N)				1 L	Glass bottle	J/6212/15	207
				2.5 L	Glass bottle	J/6212/17	207
Potassium hydrogen carbonate				500 g	Plastic jar	P/5080/53	209
				2.5 kg	Plastic jar	P/5080/62	209
Potassium hydroxide				500 g	Plastic jar	P/5640/53	211
				1 kg	Plastic jar	P/5640/60	211
				5 kg	Plastic jar	P/5640/65	211
				10 kg	Plastic drum	P/5640/68	211
				25 kg	Metal drum	P/5640/70	211
Potassium hydroxide solution 0.1M (0.1N), (in methanol)				1 L	Glass bottle	J/6625/15	211
Potassium hydroxide solution 1M (1N)				1 L	Plastic bottle	J/6630/PB15	212
				2.5 L	Plastic bottle	J/6630/17	212
Potassium iodate 0.05M solution stabilized with 10 ppm mercury(II) chloride				1 L	Glass bottle	J/6690/15	213
				2.5 L	Glass bottle	J/6690/17	213
Potassium nitrate				500 g	Plastic jar	P/6120/53	214
				1 kg	Plastic jar	P/6120/60	214
				5 kg	Plastic jar	P/6120/65	214
Potassium permanganate				250 g	Glass packaging	P/6560/50	215
				500 g	Glass packaging	P/6560/53	215
				5 kg	Plastic screw top Keg	P/6560/65	215
				25 kg	Metal drum	P/6560/70	215
Propane-1,2-diol				2.5 L	Glass bottle	P/7440/17	218
				25 L	Metal drum	P/7440/25	218
				200 L	Metal drum	P/7440/27	218
				500 mL	Glass bottle	P/7440/08	218
Silver nitrate solution 0.1M (0.1N)				1 L	Plastic bottle	J/7330/15	230
				2.5 L	Plastic bottle	J/7330/17	230
				10 L	Cubitainer	J/7330/24	230
Sodium dihydrogen orthophosphate dihydrate				500 g	Plastic jar	S/3760/53	240
				1 kg	Plastic jar	S/3760/60	240
				5 kg	Plastic drum	S/3760/65	240
				25 kg	Plastic drum	S/3760/70	240
di-Sodium hydrogen orthophosphate anhydrous				500 g	Plastic jar	S/4520/53	242
				1 kg	Plastic jar	S/4520/60	242
				3 kg	Plastic jar	S/4520/63	242
				5 kg	Plastic drum	S/4520/65	242
				25 kg	Fibre Keg	S/4520/70	242
di-Sodium hydrogen orthophosphate dodecahydrate				500 g	Plastic jar	S/4400/53	243
				1 kg	Plastic jar	S/4400/60	243
				10 kg	Plastic screw top Keg	S/4400/68	243
Sodium acetate trihydrate				500 g	Plastic Jar	S/2000/53	234
				1 kg	Plastic Jar	S/2000/60	234
				2.5 kg	Plastic Jar	S/2000/62	234
				5 kg	Plastic Keg	S/2000/65	234
Sodium benzoate				500 g	Plastic Jar	S/2440/53	235
				1 kg	Plastic Jar	S/2440/60	235
Sodium chloride				500 g	Plastic jar	S/3160/53	237
				1 kg	Plastic jar	S/3160/60	237
				3 kg	Plastic jar	S/3160/63	237
				5 kg	Plastic jar	S/3160/65	237
				10 kg	Plastic screw top Keg	S/3160/68	237
				25 kg	Plastic screw top Keg	S/3160/70	237

Reagents, Solvents & Volumetric solutions conform to the European Pharmacopeia (Eur.Ph), British (BP) & US (USP) NEW SPEC.

designation	EP	BP	USP	packsize	package type	product code	page
tri-Sodium citrate dihydrate	●	●	●	500 g	Plastic Jar	S/3320/53	238
	●	●	●	1 kg	Plastic Jar	S/3320/60	238
	●	●	●	5 kg	Plastic Keg	S/3320/65	238
	●	●	●	25 kg	Fibre Keg	S/3320/70	238
Sodium hydrogen carbonate	●			500 g	Plastic Jar	S/4240/53	242
	●			1 kg	Plastic Jar	S/4240/60	242
	●			3 kg	Plastic Jar	S/4240/63	242
	●			5 kg	Plastic Keg	S/4240/65	242
Sodium hydroxide pellets	●	●		500 g	Plastic jar	S/4920/53	244
	●	●		1 kg	Plastic jar	S/4920/60	244
	●	●		3 kg	Plastic jar	S/4920/63	244
	●	●		5 kg	Plastic jar	S/4920/65	244
	●	●		10 kg	Plastic drum	S/4920/68	244
	●	●		25 kg	Metal can	S/4920/70	244
Sodium hydroxide solution 2M (2N)		●		1 L	Plastic bottle	J/7610/PB15	246
		●		2.5 L	Plastic bottle	J/7610/17	246
		●		5 L	Plastic bottle	J/7610/21	246
Sodium hydroxide solution 1M (1N)	●	●	●	1 L	Plastic bottle	J/7620/15	246
	●	●	●	2.5 L	Plastic bottle	J/7620/17	246
	●	●	●	5 L	Plastic bottle	J/7620/21	246
	●	●	●	10 L	Cubitainer	J/7620/24	246
Sodium hydroxide solution 0.1M (0.1N)	●	●		1 L	Plastic bottle	J/7660/15	247
	●	●		2.5 L	Plastic bottle	J/7660/17	247
	●	●		5 L	Plastic bottle	J/7660/21	247
	●	●		10 L	Cubitainer	J/7660/24	247
Sodium metabisulfite	●	●		500 g	Plastic jar	S/5240/53	248
	●	●		1 kg	Plastic jar	S/5240/60	248
	●	●		2.5 kg	Plastic jar	S/5240/62	248
di-Sodium tetraborate decahydrate	●			1 kg	Plastic jar	S/7010/60	254
	●			3 kg	Plastic jar	S/7010/63	254
Sodium thiosulfate solution 0.1M (0.1N)	●	●	●	1 L	Plastic bottle	J/7950/15	255
	●	●	●	2.5 L	Plastic bottle	J/7950/17	255
	●	●	●	5 L	Plastic bottle	J/7950/21	255
	●	●	●	10 L	Cubitainer	J/7950/24	255
Sorbitol	●		●	500 g	Plastic jar	S/7400/53	255
	●		●	3 kg	Plastic jar	S/7400/63	255
Sucrose	●	●		500 g	Plastic jar	S/8600/53	272
	●	●		1 kg	Plastic jar	S/8600/60	272
	●	●		3 kg	Plastic jar	S/8600/63	272
	●	●		5 kg	Plastic drum	S/8600/65	272
	●	●		10 kg	Plastic drum	S/8600/68	272
	●	●		25 kg	Fibre Keg	S/8600/70	272
Sulfuric acid solution 0.5M (1N)	●	●	●	1 L	Plastic bottle	J/8430/15	277
	●	●	●	2.5 L	Plastic bottle	J/8430/17	277
	●	●	●	10 L	Cubitainer	J/8430/24	277
Sulfuric acid solution 0.05M (0.1N)	●	●		1 L	Plastic bottle	J/8460/15	277
	●	●		2.5 L	Plastic bottle	J/8460/17	277
	●	●		10 L	Cubitainer	J/8460/24	277
(+) - Tartaric acid	●			500 g	Plastic jar	T/0250/53	280
	●			1 kg	Plastic jar	T/0250/60	280
Zinc oxide	●	●	●	500 g	Plastic jar	Z/1300/53	309
	●	●	●	1 kg	Plastic jar	Z/1300/60	309

Fisher Chemical packaging

A convenient and complete range for a cleaner and safer world!


Standard Volumetric solution

NIST Certified & Conform to Pharmacopeia
Read more on page



1.10-Phenanthroline monohydrate for analysis

Certified AR



packaging	product code
1 g Glass tube	P/2200/43
5 g Glass bottle	P/2200/44

$C_{12}H_8N_2 \cdot H_2O$
CAS: 5144-89-8
MW: 198.23
Boiling pressure: 760 mmHg
Melting point: 97 to 101°C
ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29339090
Risk: R25, R50/53
Safety: S45, S60, S61



Assay: >99.5%

Guaranteed analysis

Residue after ignition <0.05% Sensitivity test (iron) Conform

Indicator Redox

Lot analysis on the label.

1.10-Phenanthroline monohydrate pure

packaging	product code
5 g Plastic jar	P/2190/44

$C_{12}H_8N_2 \cdot H_2O$
CAS: 5144-89-8
MW: 198.23
Boiling pressure: 760 mmHg
Melting point: 97 to 101°C
ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29339090
Risk: R25, R50/53
Safety: S45, S60, S61



Assay: >98%

1.10-Phenanthroline ferrous solution 0.025M pure

packaging	product code
100 mL Coated Glass Bottle	P/2220/PB05

$C_{36}H_{24}FeSO_4$
CAS: 14634-91-4
MW: 692.53
HS-Nr: 38220000
EINECS: 228-676-6
Safety: S24/25

Suitable for use in the Chemical Oxygen Demand test (DCO).

2-Phenylethanol extra pure

SLR



packaging	product code
500 mL Glass bottle	P/2526/08

$C_8H_{10}O$
CAS: 60-12-8
MW: 122.17
Density at 20°C: 1.02
Boiling point: 219°C
Boiling pressure: 760 mmHg
Melting point: -27°C
Flash point: 102°C
ADR/RID: 6.1/III
UN: 2810
HS-Nr: 29062900
EINECS: 200-456-2
Risk: R21/22, R36/38
Safety: S26, S36/37/39



Assay (GC): >99%

2-Phenylethylamine extra pure

SLR



packaging	product code
100 mL Coated Glass Bottle	P/2530/PB05

$C_8H_{11}N$
CAS: 64-04-0
MW: 121.18
Density at 20°C: 0.96
Boiling point: 194 to 195°C
Boiling pressure: 760 mmHg
Melting point: -60°C
Flash point: 90°C
ADR/RID: 8/III
UN: 2735
HS-Nr: 29214980
EINECS: 200-574-4
Risk: R22, R34
Safety: S26, S36/37/39, S45



Assay: >98.5%

Phenol liquified 80% w/w in water for analysis

Certified AR



packaging	product code
2.5 L Coated Glass Bottle	P/2316/PB17

C_6H_6O
CAS: 108-95-2
MW: 94.11
Density at 20°C: 1.07
Boiling point: 182°C
Melting point: 41°C
Flash point: 79°C
ADR/RID: 6.1/II
UN: 2821
HS-Nr: 29071100
EINECS: 203-632-7
Risk: R24/25, R34
Safety: S28A, S45



Assay: 77 to 81.5%

Guaranteed analysis

Acidity / Alkalinity <0.0005 meq/g	Sodium (Na) <10 ppm
Calcium (Ca) <5 ppm	Total chloride (Cl) <0.0005 %
Copper (Cu) <0.5 ppm	Total phosphorus (P) <20 ppm
Iron (Fe) <1 ppm	Total silicon (Si) <5 ppm
Lead (Pb) <0.5 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <0.5 ppm	Zinc (Zn) <0.5 ppm
Potassium (K) <5 ppm	Other IMP. No reaction

Lot analysis on the label.

Phenol liquified 80% w/w in water pure

packaging	product code
2.5 L Coated Glass Bottle	P/2315/PB17

C_6H_6O
CAS: 108-95-2
MW: 94.11
Density at 20°C: 1.055 to 1.06
Boiling point: 182°C
Melting point: 41°C
Flash point: 79°C
ADR/RID: 6.1/II
UN: 2821
HS-Nr: 29071100
EINECS: 203-632-7
Risk: R24/25, R34
Safety: S28A, S45



Phenol detached crystals for analysis

Certified AR, Eur.Ph.,BP,USP



packaging	product code
500 g Plastic jar	P/2360/53
1 kg Plastic jar	P/2360/60
2 kg Plastic jar	P/2360/61
25 kg Fibre Keg	P/2360/70

C_6H_6O
CAS: 108-95-2
MW: 94.11
Density at 20°C: 1.07
Boiling point: 182°C
Boiling pressure: 760 mmHg
Melting point: 39 to 41°C
Flash point: 79°C
ADR/RID: 6.1/II
UN: 1671
HS-Nr: 29071100
EINECS: 203-632-7
Risk: R23/24/25, R34, R48/20/21/22, R68
Safety: S24/25, S26, S28A, S36/37/39, S45



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.0005 meq/g	Sodium (Na) <10 ppm
Water-insoluble <0.005%	Total chloride (Cl) <0.0005 %
Calcium (Ca) <5 ppm	Total phosphorus (P) <20 ppm
Copper (Cu) <0.5 ppm	Total silicon (Si) <5 ppm
Iron (Fe) <1 ppm	Total sulphur (S) <50 ppm
Lead (Pb) <0.5 ppm	Zinc (Zn) <0.5 ppm
Magnesium (Mg) <0.5 ppm	Other IMP. No reaction
Potassium (K) <5 ppm	

Lot analysis on the label.

Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



Phenol detached crystals
extra pure

SLR



packaging	product code
500 g Plastic jar	P/2320/53
1 kg Plastic jar	P/2320/60

C_6H_6O
CAS: 108-95-2
MW: 94.11
Density at 20°C: 1.07
Boiling point: 182°C
Boiling pressure: 760 mmHg
Melting point: 39 to 41°C
Flash point: 79°C

ADR/RID: 6.1/II
UN: 1671
HS-Nr: 29071100
EINECS: 203-632-7
Risk: R23/24/25, R34,
R48/20/21/22, R68
Safety: S24/25, S26, S28A,
S36/37/39, S45



Assay (GC): >98%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<5 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<2 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<20 ppm	Zinc (Zn)	<2 ppm

Phenol red
pure, indicator grade

packaging	product code
5 g Glass packaging	P/2420/44
25 g Glass packaging	P/2420/46

$C_{19}H_{14}O_5S$
CAS: 143-74-8
MW: 354.38
Melting point: >300°C

HS-Nr: 29349090
EINECS: 205-609-7
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

pH 6.8-8.4 yellow to red.

Phenol red solution 0.02% in water
pure, indicator grade

packaging	product code
500 mL Glass bottle	P/2420L/08

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S7, S16



pH 6.8-8.4 yellow to red.

In solution 75% water and 25% ethanol.

Phenol disulfonic acid solution 25%w/v in sulfuric acid
pure

packaging	product code
500 mL Coated Glass Bottle	J/5900/PB08

Density at 20°C: 1.822 to 1.826
ADR/RID: 8/II
UN: 1803

HS-Nr: 29089910
Risk: R35
Safety: S36/37/39, S26

Phenol-indo-2.6-dichlorophenol sodium salt
pure

packaging	product code
1 g Glass Jar	P/2390/43
5 g Glass Jar	P/2390/44

$C_{12}H_6Cl_2NNaO_2$
CAS: 620-45-1
MW: 290.08
Boiling pressure: 760 mmHg

HS-Nr: 29089990
EINECS: 210-640-4
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Phenol-indo-2.6-dichlorophenol sodium salt
pure, tablets

packaging	product code
20 PC Glass bottle	P/2392/82

$C_{12}H_6Cl_2NNaO_2$
CAS: 620-45-1
MW: 290.07
Boiling pressure: 760 mmHg

HS-Nr: 29089990
EINECS: 210-640-4
Safety: S24/25

Phenolphthalein solid
pure, indicator grade

packaging	product code
100 g Plastic jar	P/2400/48
500 g Plastic jar	P/2400/53
10 kg Plastic screw top Keg	P/2400/68

$C_{20}H_{14}O_4$
CAS: 77-09-8
MW: 318.33
Density at 20°C: 1.3
Melting point: 258 to 263°C

HS-Nr: 29322910
EINECS: 201-004-7
Risk: R22, R40
Safety: S36/37, S45



Guaranteed analysis

IR Analysis Conform

pH 8.3-10.0 colourless to red.

Phenolphthalein solution 0.2% in water
pure, indicator grade

packaging	product code
500 mL Glass bottle	P/2400L/08
2.5 L Glass bottle	P/2400L/17

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R11, R20/21/22, R40
Safety: S7, S16, S36/37, S45



For non-aqueous titration.

Phenolphthalein solution 1% in water
pure, indicator grade

packaging	product code
500 mL Glass bottle	P/2401L/08

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000



For non-aqueous titration.

Phenosafranine C.I. 50200
pure

packaging	product code
5 g Glass packaging	P/2450/44

$C_{18}H_{15}ClN_4$
CAS: 81-93-6
MW: 322.8
Melting point: >300°C

HS-Nr: 32041300
EINECS: 201-387-0
Risk: R36/37/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

The ready to use solutions
comply with the European
Pharmacopeia
Discover them
at page 266



L-beta-Phenylalanine

extra pure for chromatography

SLR

packaging	product code
25 g Plastic jar	P/2459/46
C ₉ H ₁₁ NO ₂ CAS: 63-91-2 MW: 165.19 Melting point: 270-275°C	HS-Nr: 29224990 EINECS: 200-568-1 Risk: R36/37/38 Safety: S24/25, S37/39, S45
Assay: >99%	
Guaranteed analysis	
Loss on drying	<0.5%
Residue after ignition	<0.1%
Specific rotation (α 20/D)	+35° to -33°
Iron (Fe)	<10 ppm
Lead (Pb)	<10 ppm

DL-beta-Phenylalanine

extra pure

SLR

packaging	product code
100 g Plastic jar	P/2461/48
C ₉ H ₁₁ NO ₂ CAS: 150-30-1 MW: 165.19 Melting point: 266 °C	HS-Nr: 29224990 EINECS: 205-756-7 Safety: S24/25
Assay: >98.5%	
Guaranteed analysis	
Loss on drying	<0.5%
Melting Point tested	265 to 275°C
Residue after ignition	<0.1%
Iron (Fe)	<10 ppm
Lead (Pb)	<10 ppm

Phenylamine

See Aniline, page 31



N-Phenylanthranilic acid

pure

packaging	product code
5 g Plastic jar	P/2460/44
C ₁₃ H ₁₁ NO ₂ CAS: 91-40-7 HS-Nr: 29163900 EINECS: 202-066-8	
Guaranteed analysis	
IR Analysis	Conform

Phenylbromide

See Bromobenzene, page 42



p-Phenylenediamine

extra pure

SLR

packaging	product code
100 g Glass packaging	P/2520/48
C ₆ H ₈ N ₂ CAS: 106-50-3 MW: 108.14 Boiling point: 267°C Boiling pressure: 760 mmHg Melting point: 138 to 143°C Flash point: 156°C ADR/RID: 6.1/III	UN: 1673 HS-Nr: 29215110 EINECS: 203-404-7 Risk: R23/24/25, R36, R43, R50/53 Safety: S28A, S36/37, S45, S60, S61
Assay: >97%	



Phenylhydrazine

extra pure

SLR

packaging	product code
250 mL Coated Glass Bottle	P/2560/PB07
C ₆ H ₈ N ₂ CAS: 100-63-0 MW: 108.15 Density at 20°C: 1.09 Boiling point: 238 to 241°C Boiling pressure: 760 mmHg Freezing point: >18°C Melting point: 19°C	Flash point: 89°C ADR/RID: 6.1/II UN: 2572 HS-Nr: 29280000 EINECS: 202-873-5 Risk: R45, R23/24/25, R36/38, R43, R48/23/24/25, R50, R68 Safety: S53, S45, S61



Phenylhydrazinium chloride

extra pure

SLR

packaging	product code
250 g Glass packaging	P/2600/50
C ₆ H ₈ N ₂ .HCl CAS: 59-88-1 MW: 144.61 Melting point: 250-254°C ADR/RID: 6.1/III UN: 2811	HS-Nr: 29280000 EINECS: 200-444-7 Risk: R45, R23/24/25, R36/38, R43, R48/23/24/25, R50, R68 Safety: S53, S45, S61



Assay: >97%	
Guaranteed analysis	
Calcium (Ca)	<200 ppm
Copper (Cu)	<50 ppm
Iron (Fe)	<50 ppm
Lead (Pb)	<50 ppm
Magnesium (Mg)	<200 ppm
Potassium (K)	<500 ppm
Sodium (Na)	<1000 ppm
Total phosphorus (P)	<500 ppm
Total silicon (Si)	<200 ppm
Total sulphur (S)	<500 ppm
Zinc (Zn)	<200 ppm

Phenylmethylsulphonyl fluoride

extra pure

SLR

packaging	product code
5 g Glass packaging	P/2805/44
C ₇ H ₇ FO ₂ S CAS: 329-98-6 MW: 174.19 Melting point: 90 to 94°C ADR/RID: 8(6.1)/II UN: 2923	HS-Nr: 29049020 EINECS: 206-350-2 Risk: R25, R34 Safety: S26, S28A, S36/37/39, S45
Assay: >99%	
Guaranteed analysis	
IR Analysis	Conform



3-Phenyl-2-propenal

See Cinnamaldehyde, page 69



Phenyl salicylate

extra pure

SLR

packaging	product code
250 g Plastic jar	P/2840/50
C ₁₃ H ₁₀ O ₃ CAS: 118-55-8 MW: 214.22 Boiling point: 172 to 173°C Boiling pressure: 12 mmHg	Melting point: 40 to 44°C Flash point: >110°C HS-Nr: 29215110 EINECS: 204-259-2 Safety: S24/25
Guaranteed analysis	
IR Analysis	Conform

Phloroglucinol dihydrate
for analysis

Certified AR



packaging	product code
25 g Plastic jar	P/2922/46

$C_6H_6O_3 \cdot 2H_2O$
CAS: 6099-90-7
MW: 162.14
Melting point: 218 to 221°C

HS-Nr: 29072900
EINECS: 203-611-2
Risk: R36/37/38
Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Acidity / Alkalinity	<0.01 meq/g	Potassium (K)	<10 ppm
Calcium (Ca)	<5 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Phloroglucinol dihydrate
extra pure

SLR



packaging	product code
25 g Plastic jar	P/2920/46

$C_6H_6O_3 \cdot 2H_2O$
CAS: 6099-90-7
MW: 162.14
Melting point: 218 to 221°C

HS-Nr: 29072908
EINECS: 203-611-2
Risk: R36/37/38
Safety: S26, S37/39



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<50 ppm		

Phosphate standard solution 1000 ppm (1 mg/ml)
for ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4558/05

HS-Nr: 38220000

Manufactured to a tolerance of $\pm 1\%$.Phosphate standard 1000 ppm
For ion chromatography in H_2O , NIST certified

packaging	product code
100 mL Plastic bottle	SPASPO492Y
500 mL Plastic bottle	SPASPO492X

Manufactured to a tolerance of $\pm 0.3\%$.Phosphate-phosphorus standard 1000 ppm
For ion chromatography in H_2O , NIST certified

packaging	product code
100 mL Plastic bottle	SPASPO4P92Y
500 mL Plastic bottle	SPASPO4P92X

Manufactured to a tolerance of $\pm 0.3\%$.Phosphorous acid
extra pure, crystalline

SLR



packaging	product code
500 g Plastic jar	P/3040/53

H_3PO_3
CAS: 13598-36-2
MW: 82
Density at 20°C: 1.65
Boiling point: 200°C
Boiling pressure: 760 mmHg
Melting point: 73°C

ADR/RID: 8/III
UN: 2834
HS-Nr: 28111900
EINECS: 237-066-7
Risk: R22, R35
Safety: S26, S36/37/39, S45



Assay: >98%

Guaranteed analysis

Iron (Fe)	<50 ppm	Total chloride (Cl)	<0.005%
Sulfate (SO_4)	<0.03%		

Phosphorus standard metal solution 1000 ppm
for ICP, solution aqueous

packaging	product code
500 mL Plastic bottle	J/8299/08

HS-Nr: 28429080

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Phosphorus standard metal solution 10 000 ppm
for ICP, aqueous solution

packaging	product code
100 mL Plastic bottle	J/8298/05

HS-Nr: 28429080

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Phosphorus standard metal solution 1000 ppm
for ICP solution in H_2O , NIST certified

packaging	product code
100 mL Plastic bottle	SPPLP92Y
250 mL Plastic bottle	SPPLP92T

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Phosphorus standard metal solution 10 000 ppm
for ICP solution in H_2O , NIST certified

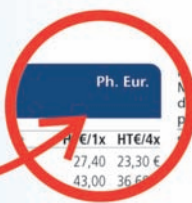
packaging	product code
100 mL Plastic bottle	SPPLP93Y
500 mL Plastic bottle	SPPLP93X

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Phosphorus

extra pure, red amorphous

SLR

SpeciFied	packaging	product code
	100 g Glass packaging	P/3080/48
P	UN: 1338	
CAS: 7723-14-0	HS-Nr: 28047000	
MW: 30.96	EINECS: 231-768-7	
Melting point: 590°C	Risk: R11, R16, R52/53	
ADR/RID: 4.1/III	Safety: S7, S43C, S61	



Phosphorus pentachloride

extra pure

SLR

SpeciFied	packaging	product code
	250 g Glass bottle	P/3160/50
	500 g Glass bottle	P/3160/53
PCl ₅	ADR/RID: 8/II	
CAS: 10026-13-8	UN: 1806	
MW: 208.24	HS-Nr: 38220000	
Density at 20°C: 1.6	EINECS: 233-060-3	
Boiling point: 160°C	Risk: R14, R22, R26, R34, R48/20	
Boiling pressure: 760 mmHg	Safety: S7/8, S26, S36/37/39, S45	
Melting point: 167°C		



Assay: >98%

Guaranteed analysis

Residue after ignition <0.1%

Phosphorus pentoxide

for analysis

Certified AR

CertiFied	packaging	product code
	250 g Plastic jar	P/3000/50
	500 g Plastic jar	P/3000/53

P ₂ O ₅	UN: 1807	
CAS: 1314-56-3	HS-Nr: 38220000	
MW: 141.94	EINECS: 215-236-1	
Density at 20°C: 2.39	Risk: R35	
Melting point: 340-360°C	Safety: S22, S26, S45	
ADR/RID: 8/II		



Assay: >99%

Guaranteed analysis

Oxides low	<0.01%	Potassium (K)	<20 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<10 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Cobalt (Co)	<2 ppm	Strontium (Sr)	<2 ppm
Lithium (Li)	<2 ppm	Titanium (Ti)	<2 ppm
Manganese (Mn)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

Phosphorus pentoxide

extra pure

SLR

SpeciFied	packaging	product code
	250 g Plastic jar	P/2960/50
	500 g Plastic jar	P/2960/53

P ₂ O ₅	UN: 1807	
CAS: 1314-56-3	HS-Nr: 38220000	
MW: 141.94	EINECS: 215-236-1	
Density at 20°C: 2.39	Risk: R35	
Melting point: 340-360°C	Safety: S22, S26, S45	
ADR/RID: 8/II		



Assay: >98%

Guaranteed analysis

Oxides low	<0.05%	Potassium (K)	<100 ppm
Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total silicon (Si)	<100 ppm
Iron (Fe)	<50 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<50 ppm		

Phosphorus tribromide

extra pure

SLR

SpeciFied	packaging	product code
	100 mL Coated Glass Bottle	P/3200/PB05

PBr ₃	ADR/RID: 8/II	
CAS: 7789-60-8	UN: 1808	
MW: 270.69	HS-Nr: 28129000	
Density at 20°C: 2.88	EINECS: 232-178-2	
Boiling point: 175°C	Risk: R14, R34, R37	
Boiling pressure: 760 mmHg	Safety: S26, S45	
Melting point: -40°C		



Assay: >99%

Phosphorus trichloride

extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	P/3240/PB08

PCl ₃	ADR/RID: 6.1(8)/I	
CAS: 7719-12-2	UN: 1809	
MW: 137.33	HS-Nr: 38220000	
Density at 20°C: 1.57	EINECS: 231-749-3	
Boiling point: 74 to 78°C	Risk: R14, R26/28, R35, R48/20	
Boiling pressure: 760 mmHg	Safety: S7/8, S26, S36/37/39, S45	
Melting point: -112°C		



Assay: >98%

Phosphoryl chloride

extra pure

SLR

SpeciFied	packaging	product code
	500 mL Coated Glass Bottle	P/3280/PB08
	2.5 L Coated Glass Bottle	P/3280/PB17

POCl ₃	ADR/RID: 8/II	
CAS: 10025-87-3	UN: 1810	
MW: 153.33	HS-Nr: 38220000	
Density at 20°C: 1.62 to 1.72	EINECS: 233-046-7	
Boiling point: 105°C	Risk: R14, R22, R26, R35, R48/23	
Boiling pressure: 760 mmHg	Safety: S7/8, S26, S36/37/39, S45	
Melting point: 1.2°C		



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o-Phthalaldehyde
extra pure

SLR

packaging	product code
5 g Glass packaging	P/3298/44
$C_8H_6O_2$ CAS: 643-79-8 MW: 134.14 Density at 20°C: 1.13 Boiling point: 83 to 84°C Boiling pressure: 1 hPa Melting point: 54 to 57°C	
Flash point: 132°C ADR/RID: 6.1(8)/II UN: 2928 HS-Nr: 29122900 EINECS: 211-402-2 Risk: R25, R34, R43 Safety: S26, S36/37/39, S45	

**Guaranteed analysis**

IR Analysis Conform

For the automated fluorescence analysis of amino acids and peptides.

Phthalein Complexon

See o-Cresolphthaleindi-(methyliminodi-acetic acid), page 76

**Phthalic anhydride**
extra pure

SLR

packaging	product code
500 g Plastic jar	P/3360/53
1 kg Plastic jar	P/3360/60
$C_8H_4O_3$ CAS: 85-44-9 MW: 148.12 Boiling point: 284°C Boiling pressure: 760 mmHg Melting point: 129 to 132°C Flash point: 152°C	
ADR/RID: 8/III UN: 2214 HS-Nr: 29173500 EINECS: 201-607-5 Risk: R22, R37/38, R41, R42/43 Safety: S22, S24/25, S26, S37/39, S46	



Assay: >99%

Guaranteed analysis

Residue after ignition <0.005%

Piperazine hexahydrate
extra pure

SLR

packaging	product code
250 g Plastic jar	P/3500/50
$C_4H_{10}N_2 \cdot 6H_2O$ CAS: 142-63-2 MW: 194.24 Boiling point: 145 to 156°C Boiling pressure: 760 mmHg Melting point: 41 to 45°C Flash point: 87°C	
ADR/RID: 8/III UN: 2579 HS-Nr: 29335990 EINECS: 203-808-3 Risk: R34, R42/43, R52/53 Safety: S22, S26, S36/37/39, S45, S61	



Assay: >98%

Platinum standard metal solution 1000 ppm
for ICP solution in HCL 10%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLPT32Y
500 mL Plastic bottle	SPPLPT32X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Platinum

extra pure, metal wire 0.127mm

SLR

packaging	product code
10 cm Plastic jar	P/3610/88
Pt CAS: 7440-06-4 MW: 195.09 Density at 20°C: 21.45	
Boiling point: 3827°C Melting point: 1772°C HS-Nr: 71101910 EINECS: 231-116-1	

Assay: 99.9%

The prices applied to platinum and derivatives vary with the price of the raw material.

Platinum

pure, metal wire 0.3 mm

packaging	product code
10 cm Plastic jar	P/3600/88
50 cm Plastic jar	P/3600/89

Pt
CAS: 7440-06-4
MW: 195.09
Density at 20°C: 21.45

Boiling point: 3827°C
Melting point: 1772°C
HS-Nr: 71101910
EINECS: 231-116-1

Assay: 99.9%

Platinum

extra pure, metal wire 0.5mm

SLR

packaging	product code
10 cm Plastic jar	P/3640/88
50 cm Plastic jar	P/3640/89
Pt CAS: 7440-06-4 MW: 195.09 Density at 20°C: 21.45	
Boiling point: 3827°C Melting point: 1772°C HS-Nr: 71101910 EINECS: 231-116-1	

Assay: 99.9%

The prices applied to platinum and derivatives vary with the price of the raw material.

Platinum(IV) dioxide
pure

packaging	product code
1 g Glass tube	P/3652/43

PtO_2
CAS: 1314-15-4
MW: 227.09
Melting point: 450°C
ADR/RID: 5.1/II
UN: 3085

HS-Nr: 28439090
EINECS: 215-223-0
Risk: R8, R38, R41
Safety: S17, S22, S26, S28A, S36/37/39

**Polyethylene glycol 6000 grade**
extra pure

SLR

packaging	product code
500 g Plastic jar	P/3681/53
25 kg Fibre Keg	P/3681/70

$HO(C_2H_4O)_nH$
CAS: 25322-68-3
Density at 20°C: 1.21

Melting point: -65°C
Flash point: 270°C
HS-Nr: 39072011

Grade number indicates approximate molecular weight.

pH BuffersNIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Polyethylene glycol 4000 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

500 g Plastic jar
 HO(C₂H₄O)_nH
 CAS: 25322-68-3
 Density at 20°C: 1.21
 Melting point: -65°C
 Flash point: 270°C
 HS-Nr: 39072011

Guaranteed analysis

Acidity <0.008 meq/g

Grade number indicates approximate molecular weight

Polyethylene glycol 200 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

500 mL Glass bottle
 HO(C₂H₄O)_nH
 CAS: 25322-68-3
 Density at 20°C: 1.11 to 1.13
 Melting point: -65°C
 Flash point: 270°C
 HS-Nr: 39072011

Guaranteed analysis

Acidity <0.008 meq/g

Grade number indicates approximate molecular weight

Polyethylene glycol 1500 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

500 g Plastic jar
 25 kg Fibre Keg
 HO(C₂H₄O)_nH
 CAS: 25322-68-3
 Density at 20°C: 1.21
 Melting point: -65°C
 Flash point: 270°C
 HS-Nr: 39072011

Guaranteed analysis

Acidity <0.008 meq/g

Grade number indicates approximate molecular weight

Polyethylene glycol 1000 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

500 g Plastic jar
 25 kg Metal drum
 HO(C₂H₄O)_nH
 CAS: 25322-68-3
 Density at 20°C: 1.21
 Melting point: -65°C
 Flash point: 270°C
 HS-Nr: 39072011

Guaranteed analysis

Acidity <0.008 meq/g

Grade number indicates approximate molecular weight

Polyethylene glycol 600 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

500 mL Glass bottle
 HO(C₂H₄O)_nH
 CAS: 25322-68-3
 Density at 20°C: 1.11 to 1.13
 Melting point: -65°C
 Flash point: 270°C
 HS-Nr: 39072011

Guaranteed analysis

Acidity <0.008 meq/g

Grade number indicates approximate molecular weight.

Polyethylene glycol 400 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

500 mL Glass bottle
 HO(C₂H₄O)_nH
 CAS: 25322-68-3
 Density at 20°C: 1.12 to 1.13
 Melting point: -65°C
 Flash point: 270°C
 HS-Nr: 38220000

Guaranteed analysis

Acidity <0.008 meq/g

Grade number indicates approximate molecular weight

Polyethylene glycol mono ether

See Triton X-100®, page 298



Polypropylene glycol 2000 grade extra pure

SLR

SpeciFied	packaging	product code
-----------	-----------	--------------

1 L Glass bottle
 CAS: 25322-69-4
 Density at 20°C: 1
 Melting point: -40°C
 Flash point: 230°C
 HS-Nr: 38220000

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

Refractive index 1.45 to 1.452

The value of the grade indicates the molecular weight of approximately.

Polyvinyl pyrrolidone pure

packaging	product code
-----------	--------------

100 g Plastic jar
 (C₆H₉NO)_n
 CAS: 9003-39-8
 MW: approx. 44.000
 Melting point: 225 °C
 Flash point: >215°C
 HS-Nr: 39059000

Guaranteed analysis

IR Analysis Conform

Potassium standard solution 1000 ppm (1 mg/ml) for Ion pair chromatography, Ready-to-use

packaging	product code
-----------	--------------

100 mL Plastic bottle
 HS-Nr: 38220000
 Risk: R34

Guaranteed analysis

Value between 0.995 to 1.005

Manufactured to a tolerance of ± 1%.

Potassium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
-----------	--------------

100 mL Plastic bottle
 500 mL Plastic bottle
 ADR/RID: 8/II
 UN: 2031
 HS-Nr: 38220000
 Risk: R34
 Safety: S23, S26, S36, S45

Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8301/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8300/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLK22Y
250 mL Plastic bottle	SPPLK22T
500 mL Plastic bottle	SPPLK22X

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLK12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLK23Y
500 mL Plastic bottle	SPPLK23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 10 000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLK13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLK22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Potassium metal in liquid paraffin pure

packaging	product code
100 g Box	P/3720/48

K
CAS: 7440-09-7
MW: 39.1
Boiling point: 770°C
Boiling pressure: 760 mmHg
Melting point: 63°C

ADR/RID: 4.3/I
UN: 2257
HS-Nr: 28051990
EINECS: 231-119-8
Risk: R14/15, R34
Safety: S5B, S8, S45



Potassium acetate for analysis

Certified AR



packaging	product code
500 g Plastic Jar	P/3761/53
1 kg Plastic Jar	P/3761/60
2.5 kg Plastic Keg	P/3761/62

KC₂H₃O₂
CAS: 127-08-2
MW: 98.14
Melting point: 292°C

Flash point: >250°C
HS-Nr: 29152900
EINECS: 204-822-2
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 9	Total chloride (Cl)	<0.001 %
Calcium (Ca)	<20 ppm	Total nitrogen (N)	<5 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<2 ppm
Sodium (Na)	<500 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Molybdenum (Mo)	<1 ppm
Cadmium (Cd)	<1 ppm	Nickel (Ni)	<1 ppm
Chromium (Cr)	<1 ppm	Silver (Ag)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Potassium acetate
extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic Jar	P/3760/53
	1 kg Plastic Jar	P/3760/60
	2.5 kg Plastic Keg	P/3760/62
	5 kg Plastic Keg	P/3760/65

KC ₂ H ₃ O ₂	Flash point: >250°C
CAS: 127-08-2	HS-Nr: 29152900
MW: 98.14	EINECS: 204-822-2
Melting point: 292°C	Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 9	Sodium (Na)	<2000 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<10 ppm

Potassium bromate
extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	P/3880/53

KB ₂ O ₃	UN: 1484
CAS: 7758-01-2	HS-Nr: 28299090
MW: 167.01	EINECS: 231-829-8
Density at 20°C: 3.27	Risk: R45, R9, R25
Melting point: 350°C	Safety: S53, S45
ADR/RID: 5.1/II	

Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 9	Magnesium (Mg)	<20 ppm
Bromide (Br)	<0.05%	Sodium (Na)	<500 ppm
Calcium (Ca)	<100 ppm	Total phosphorus (P)	<100 ppm
Copper (Cu)	<20 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<20 ppm

Potassium bicarbonate

See Potassium hydrogen carbonate, page 209



Potassium biphthalate

See Potassium hydrogen phthalate, page 210



Potassium bitartrate

See Potassium hydrogen tartrate, page 211



Potassium bromate
for analysis

Certified AR

CertiFied	packaging	product code
	250 g Plastic jar	P/3920/50
	500 g Plastic jar	P/3920/53
	1 kg Plastic jar	P/3920/60

KB ₂ O ₃	UN: 1484
CAS: 7758-01-2	HS-Nr: 28299090
MW: 167.01	EINECS: 231-829-8
Density at 20°C: 3.27	Risk: R45, R9, R25
Melting point: 350°C	Safety: S53, S45
ADR/RID: 5.1/II	

Assay: >99.9%

Guaranteed analysis

Loss on drying	<0.05%	Magnesium (Mg)	<5 ppm
pH (aqueous solution 5%)	5 to 9	Sodium (Na)	<100 ppm
Bromide (Br)	<0.01 %	Total phosphorus (P)	<20 ppm
Calcium (Ca)	<20 ppm	Total silicon (Si)	<10 ppm
Copper (Cu)	<5 ppm	Total sulphur (S)	<20 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<5 ppm
Lead (Pb)	<5 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Potassium bromate-bromide solution 0.0167 M (0.1N) **NEW SPEC.**
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/6100/15
2.5 L Glass bottle	J/6100/17

HS-Nr: 28220000
Risk: R45
Safety: S53, S45



Manufactured to a tolerance of ± 0.1%.
See the full range of Standard Volumetric solution page 266.

Potassium bromate-bromide solution 0.0167 M (0.1N) **NEW SPEC.**
NIST Standard Concentrate, For Volumetric analysis

Solutrate	packaging	product code
	1 ampoule	J/6100C/05
	6 ampoule	J/6100C/90

HS-Nr: 28220000

Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Potassium bromide
For IR Spectroscopy

packaging	product code
100 g Plastic jar	P/4020/48

KB₂Br
CAS: 7758-02-3
MW: 119.01
Boiling point: 1435°C
Boiling pressure: 760 mmHg
Melting point: 734°C
HS-Nr: 28275100
EINECS: 231-830-3
Risk: R36
Safety: S26, S39



Guaranteed analysis
IR Analysis Conform

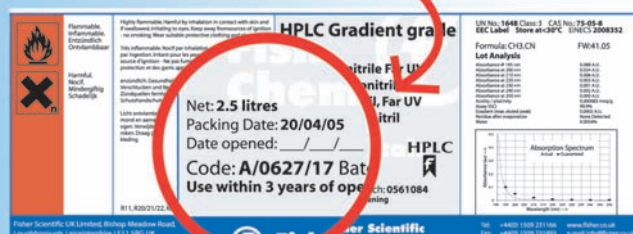
Lot analysis on the label.

Standard Certified
for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Use best before information on the label



Potassium bromide
for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/4000/50
500 g Plastic jar	P/4000/53
1 kg Plastic jar	P/4000/60

KBr	Melting point: 734°C	
CAS: 7758-02-3	HS-Nr: 28275100	
MW: 119.01	EINECS: 231-830-3	
Boiling point: 1435°C	Risk: R36	
Boiling pressure: 760 mmHg	Safety: S26, S39	

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.5%	Sodium (Na)	<1000 ppm
pH (aqueous solution 5%)	5 to 8	Total chloride (Cl)	<0.2 %
Bromate (BrO ₃)	<0.0005 %	Total nitrogen (N)	<10 ppm
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<5 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Potassium bromide
extra pure

SLR



packaging	product code
500 g Plastic jar	P/3960/53
1 kg Plastic jar	P/3960/60

KBr	Melting point: 734°C	
CAS: 7758-02-3	HS-Nr: 28275100	
MW: 119.01	EINECS: 231-830-3	
Boiling point: 1435°C	Risk: R36	
Boiling pressure: 760 mmHg	Safety: S26, S39	

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Sodium (Na)	<5000 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.5%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm

Potassium carbonate anhydrous
for analysis

Certified AR, Eur.Ph.



packaging	product code
250 g Plastic jar	P/4120/50
500 g Plastic jar	P/4120/53
1 kg Plastic jar	P/4120/60
2.5 kg Plastic jar	P/4120/62

K ₂ CO ₃	HS-Nr: 28364000	
CAS: 584-08-7	EINECS: 209-529-3	
MW: 138.21	Risk: R22, R36/37/38	
Melting point: 891°C	Safety: S26, S37/39	

Assay: >99.9%

Guaranteed analysis

Loss on drying 300°C	<1%	Sodium (Na)	<1000 ppm
Cadmium (Cd)	<1 ppm	Total chloride (Cl)	<0.002 %
Calcium (Ca)	<10 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Chromium (Cr)	<1 ppm	Silver (Ag)	<1 ppm
Cobalt (Co)	<1 ppm	Strontium (Sr)	<5 ppm
Lithium (Li)	<1 ppm	Titanium (Ti)	<1 ppm
Manganese (Mn)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Potassium carbonate anhydrous
extra pure

SLR



packaging	product code
500 g Plastic jar	P/4080/53
1 kg Plastic jar	P/4080/60
2.5 kg Plastic jar	P/4080/62
5 kg Plastic drum	P/4080/65

K ₂ CO ₃	HS-Nr: 28364000	
CAS: 584-08-7	EINECS: 209-529-3	
MW: 138.21	Risk: R22, R36/37/38	
Melting point: 891°C	Safety: S26, S37/39	

Assay: >99%

Guaranteed analysis

Loss on drying 300°C	<2%	Sodium (Na)	<5000 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm

Potassium chlorate
extra pure

SLR



packaging	product code
500 g Plastic jar	P/4160/53

KClO ₃	UN: 1485	
CAS: 3811-04-9	HS-Nr: 28291900	
MW: 122.55	EINECS: 223-289-7	
Melting point: 356 to 368°C	Risk: R9, R20/22, R51/53	
ADR/RID: 5.1/II	Safety: S13, S16, S27, S61	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Sodium (Na)	<500 ppm		

Potassium chloride
for analysis

Certified AR



packaging	product code
500 g Plastic jar	P/4280/53
1 kg Plastic jar	P/4280/60
5 kg Plastic drum	P/4280/65
10 kg Plastic drum	P/4280/68
25 kg Plastic screw top Keg	P/4280/70

KCl	Melting point: 770°C	
CAS: 7447-40-7	HS-Nr: 31042090	
MW: 74.56	EINECS: 231-211-8	
Boiling point: 1420°C	Risk: R36	
Boiling pressure: 760 mmHg	Safety: S26, S39	

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.5%	Manganese (Mn)	<1 ppm
pH (aqueous solution 5%)	5 to 8	Sodium (Na)	<500 ppm
Calcium (Ca)	<10 ppm	Total nitrogen (N)	<10 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Potassium chloride extra pure

SLR, Eur. Ph.

packaging	product code
500 g Plastic jar	P/4240/53
1 kg Plastic jar	P/4240/60
2.5 kg Plastic jar	P/4240/62
5 kg Plastic jar	P/4240/65

KCl	Melting point: 770°C	
CAS: 7447-40-7	HS-Nr: 31042090	
MW: 74.56	EINECS: 231-211-8	
Boiling point: 1420°C	Risk: R36	
Boiling pressure: 760 mmHg	Safety: S26, S39	

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Sodium (Na)	<2000 ppm
Calcium (Ca)	<50 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<20 ppm		

Potassium chloride solution 4M pure, Electrode filling solution

packaging	product code
100 mL Glass bottle	J/2986/05

Density at 20°C: 1.1684 to 1.177
HS-Nr: 38220000

Potassium chloride solution 4M pure, Electrode filling solution with silver chloride

packaging	product code
100 mL Glass bottle	J/2984/05

HS-Nr: 38220000

Potassium chloride saturated solution pure, Electrode filling solution

packaging	product code
100 mL Glass bottle	J/2983/05

HS-Nr: 38220000

Potassium Chloride solution 3M pure

packaging	product code
1 L Plastic drum	J/2892/15

HS-Nr: 38220000
Risk: R22, R36/38

Guaranteed analysis

Value between 2.99 to 3.01

Potassium chromate for analysis

Certified AR

packaging	product code
250 g Plastic jar	P/4400/50
500 g Plastic jar	P/4400/53
1 kg Plastic jar	P/4400/60
25 kg Fibre Keg	P/4400/70

K₂CrO₄
CAS: 7789-00-6
MW: 194.2
Melting point: 975°C
ADR/RID: 5.1(6.1)/III
UN: 3087

HS-Nr: 38220000
EINECS: 232-140-5
Risk: R49, R46, R8, R22,
R36/37/38, R43, R50/53
Safety: S53, S45, S60, S61



Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	9 to 10	Sodium (Na)	<2000 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<5 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<0.002 %	Manganese (Mn)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Titanium (Ti)	<2 ppm
Cobalt (Co)	<2 ppm	Vanadium (V)	<2 ppm
Lithium (Li)	<2 ppm		

Lot analysis on the label.

Potassium chromate extra pure

SLR

packaging	product code
500 g Plastic jar	P/4360/53
1 kg Plastic jar	P/4360/60

K₂CrO₄
CAS: 7789-00-6
MW: 194.2
Melting point: 975°C
ADR/RID: 5.1(6.1)/III
UN: 3087

HS-Nr: 28415000
EINECS: 232-140-5
Risk: R49, R46, R8, R22,
R36/37/38, R43, R50/53
Safety: S53, S45, S60, S61



Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	9 to 10	Sodium (Na)	<5000 ppm
Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<500 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<100 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

tri-Potassium citrate for analysis

Certified AR, Eur.Ph.,BP,USP

packaging	product code
500 g Plastic jar	P/4442/53

C₆H₅K₃O₇·H₂O
CAS: 6100-05-6
MW: 324.42
Melting point: 230°C

HS-Nr: 29181500
EINECS: 212-755-5
Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	8 to 9	Sodium (Na)	<500 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<2 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<10 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<20 ppm
Oxalate (C ₂ O ₄)	<0.01 %	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

tri-Potassium citrate
extra pure

SLR



packaging	product code
-----------	--------------

500 g Plastic jar

P/4440/53

C₆H₅K₃O₇·H₂O
CAS: 6100-05-6
MW: 324.42
Melting point: 230°C

HS-Nr: 29181500
EINECS: 212-755-5
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	pH > 8	Sodium (Na)	<2000 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

Potassium cyanate
extra pure

SLR



packaging	product code
-----------	--------------

500 g Plastic jar

P/4520/53

KOCN
CAS: 590-28-3
MW: 81.12
Melting point: 315°C

HS-Nr: 28429080
EINECS: 209-676-3
Risk: R22
Safety: S24/25



Assay: >98%

Guaranteed analysis

Loss on drying	<2%	Potassium cyanide (KCN)	<0.5%
----------------	-----	-------------------------	-------

Potassium cyanide
for analysis

Certified AR



packaging	product code
-----------	--------------

250 g Plastic jar

P/4600/50

25 kg Metal drum

P/4600/70

KCN
CAS: 151-50-8
MW: 65.12
Boiling point: 1625°C
Melting point: 634°C
ADR/RID: 6.1/I

UN: 1680
HS-Nr: 38220000
EINECS: 205-792-3
Risk: R26/27/28, R32, R50/53
Safety: S7, S28A, S29, S45, S60, S61



Assay: >99%

Guaranteed analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<2 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<5000 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Lithium (Li)	<1 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<10 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm	Zinc (Zn)	<20 ppm

Lot analysis on the label.

Potassium cyanide
extra pure

SLR



packaging	product code
-----------	--------------

250 g Plastic jar

P/4560/50

KCN
CAS: 151-50-8
MW: 65.12
Boiling point: 1625°C
Melting point: 634°C
ADR/RID: 6.1/I

UN: 1680
HS-Nr: 28371900
EINECS: 205-792-3
Risk: R26/27/28, R32, R50/53
Safety: S7, S28A, S29, S45, S60, S61



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<10 000 ppm
Copper (Cu)	<20 ppm	Total phosphorus (P)	<500 ppm
Iron (Fe)	<200 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Potassium dichromate
for analysis

Certified AR



packaging	product code
-----------	--------------

250 g Plastic jar

P/4720/50

500 g Plastic jar

P/4720/53

1 kg Plastic jar

P/4720/60

25 kg Plastic screw top Keg

P/4720/70

K₂Cr₂O₇
CAS: 7778-50-9
MW: 294.19
Boiling point: 500°C
Boiling pressure: 760 mmHg
Melting point: 398°C
ADR/RID: 5.1(6.1)/II

UN: 3086
HS-Nr: 28415000
EINECS: 231-906-6
Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53
Safety: S53, S45, S60, S61



Assay: >99.9%

Guaranteed analysis

Loss on drying	<0.05%	Sodium (Na)	<100 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<10 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm		

Lot analysis on the label.

Potassium dichromate
extra pure, powder

SLR



packaging	product code
-----------	--------------

500 g Plastic jar

P/4690/53

K₂Cr₂O₇
CAS: 7778-50-9
MW: 294.19
Boiling point: 500°C
Boiling pressure: 760 mmHg
Melting point: 398°C
ADR/RID: 5.1(6.1)/II

UN: 3086
HS-Nr: 28415000
EINECS: 231-906-6
Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53
Safety: S53, S45, S60, S61



Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.1%	Sodium (Na)	<500 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<50 ppm	Total phosphorus (P)	<500 ppm
Iron (Fe)	<100 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<100 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Acids, Bases and Water
for Trace Metal analysis

The right grade for the right detection level.

Choose between Optima®,
Trace Metal® & Primar Plus® grade.

Read more page 9



Potassium dichromate extra pure, crystals

SLR



packaging	product code
500 g Plastic jar	P/4680/53
1 kg Plastic jar	P/4680/60
5 kg Plastic jar	P/4680/65

K ₂ Cr ₂ O ₇	UN: 3086	
CAS: 7778-50-9	HS-Nr: 28415000	
MW: 294.19	EINECS: 231-906-6	
Boiling point: 500°C	Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53	
Boiling pressure: 760 mmHg	Safety: S53, S45, S60, S61	

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.1%	Sodium (Na)	<500 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<50 ppm	Total phosphorus (P)	<500 ppm
Iron (Fe)	<100 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<100 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Potassium dichromate pure

packaging	product code
1 kg Plastic jar	P/4640/60
3 kg Plastic jar	P/4640/63

K ₂ Cr ₂ O ₇	UN: 3086	
CAS: 7778-50-9	HS-Nr: 28415000	
MW: 294.19	EINECS: 231-906-6	
Boiling point: 500°C	Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53	
Boiling pressure: 760 mmHg	Safety: S53, S45, S60, S61	

Potassium dichromate solution 0.0167M (0.1N)

NEW SPEC.

Eur. Ph. , USP, BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/6212/15
2.5 L Glass bottle	J/6212/17

Density at 20°C: 1	Risk: R49, R46, R43, R41, R37/38, R50/53	
ADR/RID: /II	Safety: S53, S45, S60, S61	

Manufactured to a tolerance of ± 0.1%.

See the full range of Standard Volumetric solution page 266.

Potassium dichromate solution 0.0167M (0.1N)

NEW SPEC.

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/6212C/05
6 ampoule	J/6212C/90

HS-Nr: 38220000	
Risk: R49, R46, R43, R51/53	
Safety: S53, S45, S60, S61	

Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Potassium dichromate solution 0.021 M (0.125N)

NEW SPEC.

NIST For COD and volumetric analysis

packaging	product code
1 L Glass bottle	J/6220/15
2.5 L Glass bottle	J/6220/17

HS-Nr: 38220000
Risk: R49, R46, R43, R51/53
Safety: S53, S45, S60, S61



Manufactured to a tolerance of ± 0.2%.

See the full range of Standard Volumetric solution page 266.

Potassium dihydrogen orthophosphate for HPLC

Certified



packaging	product code
250 g Plastic jar	P/4806/50
1 kg Plastic jar	P/4806/60
25 kg Plastic screw top Keg	P/4806/70

KH₂PO₄ HS-Nr: 28352400
CAS: 7778-77-0 EINECS: 231-913-4
MW: 136.09 Safety: S24/25
Melting point: 252.6°C

Assay: >99%

Guaranteed analysis

pH (solution 5%) 25°C	4.1 to 4.5	Lead (Pb)	<5 ppm
Iron (Fe)	<5 ppm	Total chloride (Cl)	<0.0005%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.05 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Potassium dihydrogen orthophosphate HPLC for electrochemical detection

Certified



packaging	product code
250 g Plastic jar	P/4810/50

KH₂PO₄ HS-Nr: 28352400
CAS: 7778-77-0 EINECS: 231-913-4
MW: 136.09 Safety: S24/25
Melting point: 252.6°C

Assay: >99%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<5 ppm
pH (solution 5%) 25°C	4.1 to 4.5	Total chloride (Cl)	<0.0005%
Iron (Fe)	<5 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.05 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

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A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS
Discover them on page 258



Potassium dihydrogen orthophosphate for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/4800/50
500 g Plastic jar	P/4800/53
1 kg Plastic jar	P/4800/60
3 kg Plastic jar	P/4800/63
25 kg Plastic screw top Keg	P/4800/70

KH_2PO_4
CAS: 7778-77-0
MW: 136.09
Melting point: 252.6°C
HS-Nr: 28352400
EINECS: 231-913-4
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.05%	Sodium (Na)	<200 ppm
pH (aqueous solution 5%)	4.3 to 4.4	Total chloride (Cl)	<0.0005 %
Calcium (Ca)	<50 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<20 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Potassium dihydrogen orthophosphate extra pure

SLR



packaging	product code
500 g Plastic jar	P/4760/53
1 kg Plastic jar	P/4760/60
3 kg Plastic jar	P/4760/63
25 kg Plastic screw top Keg	P/4760/70

KH_2PO_4
CAS: 7778-77-0
MW: 136.09
Melting point: 252.6°C
HS-Nr: 28352400
EINECS: 231-913-4
Safety: S24/25

Assay: >99%

Guaranteed analysis

Loss on drying	<0.1%	Magnesium (Mg)	<100 ppm
pH (aqueous solution 5%)	4.2 to 4.5	Sodium (Na)	<1000 ppm
Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<20 ppm	Total silicon (Si)	<200 ppm
Iron (Fe)	<50 ppm	Total sulphur (S)	<500 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<50 ppm

Potassium dihydrogen phosphate

See Potassium dihydrogen orthophosphate, page 207



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Potassium fluoride anhydrous extra pure

SLR



packaging	product code
500 g Plastic Jar	P/5000/53

KF
CAS: 7789-23-3
MW: 58.09
Density at 20°C: 2.48
Boiling point: 1505°C
Boiling pressure: 760 mmHg
Melting point: 860°C
ADR/RID: 6.1/III
UN: 1812
HS-Nr: 28372000
EINECS: 232-151-5
Risk: R23/24/25
Safety: S26, S45



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<200 ppm	Total phosphorus (P)	<500 ppm
Iron (Fe)	<100 ppm	Total silicon (Si)	<5000 ppm
Lead (Pb)	<100 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<200 ppm
Sodium (Na)	<5000 ppm		

Potassium fluoride dihydrate extra pure

SLR



packaging	product code
500 g Plastic Jar	P/4980/53

KF.2H₂O
CAS: 13455-21-5
MW: 94.13
Density at 20°C: 2.45
Boiling point: 156°C
Boiling pressure: 760 mmHg
Melting point: 41°C
ADR/RID: 6.1/III
UN: 1812
HS-Nr: 28372000
Risk: R23/24/25
Safety: S26, S45



Assay: 99 to 102%

Guaranteed analysis

Iron (Fe)	<200 ppm	Sulfate (SO ₄)	<0.2%
Lead (Pb)	<50 ppm	Total chloride (Cl)	<0.02%
Sodium (Na)	<5000 ppm		

Potassium hexachloroplatinate(IV) extra pure

SLR



packaging	product code
1 g Glass tube	P/4320/43

K₂PtCl₆
CAS: 16921-30-5
MW: 486.01
ADR/RID: 6.1(8)/II
UN: 3290
HS-Nr: 28439090
EINECS: 240-979-3
Risk: R25, R41, R37, R42/43
Safety: S22, S24, S26, S36/37/39, S45, S45



Potassium hexacyanoferrate(II) for analysis

Certified AR



packaging	product code
500 g Plastic jar	P/4960/53
1 kg Plastic jar	P/4960/60
25 kg Plastic screw top Keg	P/4960/70

K₄Fe(CN)₆.3H₂O
CAS: 14459-95-1
MW: 422.41
Density at 20°C: 1.85
Melting point: 70°C
HS-Nr: 28372000
EINECS: 237-722-2
Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Nickel (Ni)	<5 ppm
Barium (Ba)	<5 ppm	Silver (Ag)	<5 ppm
Cadmium (Cd)	<5 ppm	Sodium (Na)	<200 ppm
Calcium (Ca)	<50 ppm	Strontium (Sr)	<5 ppm
Chromium (Cr)	<5 ppm	Titanium (Ti)	<5 ppm
Cobalt (Co)	<5 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Lithium (Li)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm	Zinc (Zn)	<20 ppm
Molybdenum (Mo)	<5 ppm		

Potassium hexacyanoferrate(II) extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	P/4920/53
	25 kg Plastic screw top Keg	P/4920/70

$\text{C}_6\text{FeK}_4\text{N}_6 \cdot 3\text{H}_2\text{O}$
 CAS: 14459-95-1
 MW: 422.41
 Density at 20°C: 1.85
 Melting point: 70°C
 HS-Nr: 28372000
 EINECS: 237-722-2
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.2%
Copper (Cu)	<200 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<200 ppm	Total silicon (Si)	<500 ppm
Magnesium (Mg)	<200 ppm	Total sulphur (S)	<500 ppm
Sodium (Na)	<2000 ppm	Zinc (Zn)	<200 ppm

Potassium hexacyanoferrate(III) for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/4880/50
500 g Plastic jar	P/4880/53
1 kg Plastic jar	P/4880/60
25 kg Plastic screw top Keg	P/4880/70

$\text{K}_3\text{Fe}(\text{CN})_6$
 CAS: 13746-66-2
 MW: 329.26
 Density at 20°C: 1.85
 HS-Nr: 28372000
 EINECS: 237-323-3
 Risk: R32
 Safety: S50A

Assay: >99%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<200 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.02%
Iron cyanide	<0.02%	Total phosphorus (P)	<50 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Lithium (Li)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm	Zinc (Zn)	<50 ppm

Lot analysis on the label.

Potassium hexacyanoferrate(III) extra pure

SLR

SpeciFied	packaging	product code
	250 g Plastic jar	P/4840/50
	500 g Plastic jar	P/4840/53

$\text{C}_6\text{FeK}_3\text{N}_6$
 CAS: 13746-66-2
 MW: 329.26
 Density at 20°C: 1.85
 HS-Nr: 28372000
 EINECS: 237-323-3
 Risk: R32
 Safety: S50A

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.2%
Copper (Cu)	<200 ppm	Total phosphorus (P)	<500 ppm
Lead (Pb)	<200 ppm	Total silicon (Si)	<500 ppm
Magnesium (Mg)	<200 ppm	Total sulphur (S)	<500 ppm
Sodium (Na)	<2000 ppm	Zinc (Zn)	<200 ppm

Standard Volumetric solution

NIST Certified & Conform
 to Pharmacopeia
 Read more on page 266



Potassium hydrogen carbonate for analysis

Certified AR

CertiFied	packaging	product code
	500 g Plastic jar	P/5120/53
	1 kg Plastic jar	P/5120/60

KHCO_3
 CAS: 298-14-6
 MW: 100.12
 Melting point: 292°C
 HS-Nr: 28364000
 EINECS: 206-059-0
 Safety: S24/25

Assay: >99.8%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<2 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<10 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<10 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<50 ppm
Sodium (Na)	<200 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Potassium hydrogen carbonate extra pure

SLR, Eur.Ph., BP, USP

SpeciFied	packaging	product code
	500 g Plastic jar	P/5080/53
	2.5 kg Plastic jar	P/5080/62

KHCO_3
 CAS: 298-14-6
 MW: 100.12
 Melting point: 292°C
 HS-Nr: 28364000
 EINECS: 206-059-0
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Sodium (Na)	<2000 ppm		

di-Potassium hydrogen orthophosphate anhydrous for analysis

Certified AR

CertiFied	packaging	product code
	500 g Plastic jar	P/5245/53
	1 kg Plastic jar	P/5245/60
	25 kg Fibre Keg	P/5245/70

K_2HPO_4
 CAS: 7758-11-4
 MW: 174.18
 Melting point: 340°C
 HS-Nr: 28352400
 EINECS: 231-834-5
 Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	9 to 9.2	Sodium (Na)	<500 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<5 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

di-Potassium hydrogen orthophosphate anhydrous SLR
extra pure

packaging	product code
500 g Plastic jar	P/5240/53
1 kg Plastic jar	P/5240/60
5 kg Plastic drum	P/5240/65
10 kg Plastic drum	P/5240/68

K_2HPO_4 HS-Nr: 28352400
CAS: 7758-11-4 EINECS: 231-834-5
MW: 174.18 Safety: S24/25
Melting point: 340°C

Assay: >99%

Guaranteed analysis

Loss on drying	<0.5%	Magnesium (Mg)	<200 ppm
Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total silicon (Si)	<200 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<100 ppm

di-Potassium hydrogen orthophosphate trihydrate Certified AR
for analysis

packaging	product code
500 g Plastic jar	P/5250/53
1 kg Plastic jar	P/5250/60
25 kg Plastic screw top Keg	P/5250/70

$K_2HPO_4 \cdot 3H_2O$ HS-Nr: 28352400
CAS: 16788-57-1 EINECS: 231-834-5
MW: 228.22 Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	9 to 9.2	Sodium (Na)	<500 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<5 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

di-Potassium hydrogen orthophosphate trihydrate SLR
extra pure

packaging	product code
500 g Plastic jar	P/5248/53
1 kg Plastic jar	P/5248/60

$K_2HPO_4 \cdot 3H_2O$ HS-Nr: 28352400
CAS: 16788-57-1 EINECS: 231-834-5
MW: 228.22 Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total silicon (Si)	<200 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<100 ppm
Magnesium (Mg)	<200 ppm		

Potassium hydrogen phthalate
for analysis

Certified AR

packaging	product code
100 g Plastic jar	P/5320/48
250 g Plastic jar	P/5320/50
500 g Plastic jar	P/5320/53
1 kg Plastic jar	P/5320/60

$C_8H_5KO_4$ HS-Nr: 29173990
CAS: 877-24-7 EINECS: 212-889-4
MW: 204.23 Safety: S24/25
Melting point: 295-300°C

Assay: 99.9 to 100.1%

Guaranteed analysis

Loss on drying	<0.1%	Sodium (Na)	<200 ppm
pH (M solution /20) 15°C	3.999 to 4.001	Total chloride (Cl)	<0.002 %
Calcium (Ca)	<20 ppm	Total phosphorus (P)	<50 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Potassium hydrogen sulfate
for analysis

Certified AR

packaging	product code
250 g Plastic Jar	P/5440/50
500 g Plastic Jar	P/5440/53
1 kg Plastic Jar	P/5440/60

$KHSO_4$ UN: 2509
CAS: 7646-93-7 HS-Nr: 28332990
MW: 136.17 EINECS: 231-594-1
Density at 20°C: 2.32 Risk: R34, R37
Melting point: 214°C Safety: S26, S36/37/39, S45
ADR/RID: 8/II

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<5 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<10 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm
Sodium (Na)	<100 ppm		

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266

Eur.Ph., USP, BP
Pharmacopeia
Code € x1 € x4
16.52 14.0
32.94

Use best before information on the label

Potassium hydrogen sulfate extra pure

SLR

Specified	packaging	product code
500 g Plastic Jar	P/5420/53	
KHSO ₄ CAS: 7646-93-7 MW: 136.17 Density at 20°C: 2.32 Melting point: 214°C ADR/RID: 8/II UN: 2509 HS-Nr: 28332990 EINECS: 231-594-1 Risk: R34, R37 Safety: S26, S36/37/39, S45		
Assay: >98% Guaranteed analysis Calcium (Ca) <200 ppm Sodium (Na) <5000 ppm Copper (Cu) <20 ppm Total chloride (Cl) <0.002% Iron (Fe) <20 ppm Total phosphorus (P) <50 ppm Lead (Pb) <20 ppm Total silicon (Si) <100 ppm Magnesium (Mg) <100 ppm Zinc (Zn) <100 ppm		

Potassium hydrogen tartrate extra pure

SLR

Specified	packaging	product code
1 kg Plastic jar	P/5480/60	
C ₄ H ₄ KO ₆ CAS: 868-14-4 MW: 188.18 Density at 20°C: 1.95 HS-Nr: 29181300 EINECS: 212-769-3 Safety: S24/25		

Potassium hydroxide for analysis, pellets

Certified AR, Eur.Ph., BP

Certified	packaging	product code
500 g Plastic jar	P/5640/53	
1 kg Plastic jar	P/5640/60	
5 kg Plastic jar	P/5640/65	
10 kg Plastic drum	P/5640/68	
25 kg Metal drum	P/5640/70	
KOH CAS: 1310-58-3 MW: 56.11 Boiling point: 1320°C Boiling pressure: 760 mmHg Melting point: 360°C ADR/RID: 8/II UN: 1813 HS-Nr: 28152010 EINECS: 215-181-3 Risk: R22, R35 Safety: S26, S36/37/39, S45		
Assay: >86% Guaranteed analysis Calcium (Ca) <10 ppm Total chloride (Cl) <0.002 % Carbonate (Na ₂ CO ₃) <1 % Total nitrogen (N) <10 ppm Copper (Cu) <5 ppm Total phosphorus (P) <5 ppm Iron (Fe) <5 ppm Total silicon (Si) <50 ppm Lead (Pb) <5 ppm Total sulphur (S) <20 ppm Magnesium (Mg) <5 ppm Zinc (Zn) <10 ppm Sodium (Na) <5000 ppm		
Typical analysis Aluminium (Al) <5 ppm Manganese (Mn) <5 ppm Arsenic (As) <0.5 ppm Molybdenum (Mo) <5 ppm Barium (Ba) <5 ppm Nickel (Ni) <5 ppm Cadmium (Cd) <5 ppm Silver (Ag) <5 ppm Chromium (Cr) <5 ppm Strontium (Sr) <5 ppm Cobalt (Co) <5 ppm Titanium (Ti) <5 ppm Lithium (Li) <5 ppm Vanadium (V) <5 ppm		

Lot analysis on the label.

Potassium hydroxide pellets extra pure

SLR

Specified	packaging	product code
500 g Plastic jar	P/5600/53	
1 kg Plastic jar	P/5600/60	
5 kg Plastic jar	P/5600/65	
10 kg Plastic drum	P/5600/68	
KOH CAS: 1310-58-3 MW: 56.11 Boiling point: 1320°C Boiling pressure: 760 mmHg Melting point: 360°C ADR/RID: 8/II UN: 1813 HS-Nr: 28020000 EINECS: 215-181-3 Risk: R22, R35 Safety: S26, S36/37/39, S45		
Assay: >85% Guaranteed analysis Calcium (Ca) <50 ppm Sodium (Na) <10 000 ppm Carbonate (Na ₂ CO ₃) <2% Total chloride (Cl) <0.01% Copper (Cu) <20 ppm Total phosphorus (P) <200 ppm Iron (Fe) <20 ppm Total silicon (Si) <200 ppm Lead (Pb) <20 ppm Total sulphur (S) <100 ppm Magnesium (Mg) <20 ppm Zinc (Zn) <50 ppm		

Potassium hydroxide flake extra pure

SLR

Specified	packaging	product code
1 kg Plastic jar	P/5560/60	
KOH CAS: 1310-58-3 MW: 56.11 Boiling point: 1320°C Boiling pressure: 760 mmHg Melting point: 360°C ADR/RID: 8/II UN: 1813 HS-Nr: 28020000 EINECS: 215-181-3 Risk: R22, R35 Safety: S26, S36/37/39, S45		
Assay: >85% Guaranteed analysis Calcium (Ca) <50 ppm Sodium (Na) <10 000 ppm Carbonate (Na ₂ CO ₃) <2% Total chloride (Cl) <0.01% Copper (Cu) <20 ppm Total phosphorus (P) <200 ppm Iron (Fe) <20 ppm Total silicon (Si) <200 ppm Lead (Pb) <20 ppm Total sulphur (S) <100 ppm Magnesium (Mg) <20 ppm Zinc (Zn) <50 ppm		

Potassium hydroxide solution 48-50 % liquor pure

packaging	product code
2.5 L Plastic bottle	P/5645/17
KOH CAS: 1310-58-3 MW: 56.11 ADR/RID: 8/II UN: 1814 HS-Nr: 28152090 Risk: R22, R35 Safety: S26, S36/37/39, S45	

Assay: 48 to 50%

Potassium hydroxide solution 0.1M (0.1N), (in methanol) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

Eur.Ph., BP

packaging	product code
1 L Glass bottle	J/6625/15
ADR/RID: /II UN: 3286 HS-Nr: 28152090 Risk: R11, R20/21/22, R40/20/21/22, R36, R38 Safety: S16, S26, S36/37/39, S45	

Manufactured to a tolerance of ± 0.5%.
See the full range of Standard Volumetric solution page 266.

Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Potassium hydroxide solution 0.1M (0.1N), (in ethanol) NEW SPEC.
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/6620/15
2.5 L Plastic bottle	J/6620/17

ADR/RID: 3(8)/II Risk: R11, R20/21/22,
UN: 2924 R40/20/21/22, R36/38
HS-Nr: 28152090 Safety: S16, S26, S36/37/39, S45



Manufactured to a tolerance of $\pm 0.2\%$.
See the full range of Standard Volumetric solution page 266.

Potassium hydroxide solution 0.1M (0.1N)
NIST Standard Concentrate, For Volumetric analysis
Solutrate


packaging	product code
1 ampoule	J/6640C/05
6 ampoule	J/6640C/90

ADR/RID: /II Risk: R35
UN: 1814 Safety: S26, S36/37/39, S45
HS-Nr: 28152090



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Potassium hydroxide solution 0.5M (0.5N), (in ethanol) NEW SPEC.
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/6612/15
2.5 L Plastic bottle	J/6612/17

ADR/RID: 3(8)/II Risk: R11, R34, R20/21/22,
UN: 2924 R40/20/21/22
HS-Nr: 28152090 Safety: S16, S26, S36/37/39, S45



Manufactured to a tolerance of $\pm 0.2\%$.
See the full range of Standard Volumetric solution page 266.

Potassium hydroxide solution 1M (1N) NEW SPEC. Eur.Ph. , BP
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/6630/PB15
2.5 L Plastic bottle	J/6630/17

Density at 20°C: 1.05 HS-Nr: 28152090
ADR/RID: /II Risk: R34
UN: 1814 Safety: S26, S36/37/39, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Potassium hydroxide solution 1M (1N) NEW SPEC.
NIST Standard Concentrate, For Volumetric analysis
Solutrate


packaging	product code
1 ampoule	J/6630C/05
6 ampoule	J/6630C/90

ADR/RID: /II Risk: R22, R35
UN: 1814 Safety: S26, S36/37/39, S45
HS-Nr: 28152090



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Save money!
Order 4 bottles in a box


Potassium hydroxide solution 1M (1N), (alcoholic) NEW SPEC.
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/6610/15
2.5 L Plastic bottle	J/6610/17

ADR/RID: 3(8)/II Risk: R11, R35, R20/21/22,
UN: 2924 R40/20/21/22
HS-Nr: 28152090 Safety: S16, S26, S36/37/39, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Potassium iodate
for analysis
Certified AR


packaging	product code
100 g Plastic jar	P/5800/48
250 g Plastic jar	P/5800/50
500 g Plastic jar	P/5800/53
1 kg Plastic jar	P/5800/60

KIO₃ UN: 1479
CAS: 7758-05-6 HS-Nr: 28299090
MW: 214 EINECS: 231-831-9
Density at 20°C: 3.93 Risk: R8, R22, R36/37/38
Melting point: 560°C Safety: S17, S26, S37/39
ADR/RID: 5.1/II


Assay: >99.9%
Guaranteed analysis

Loss on drying	<0.05%	Lead (Pb)	<10 ppm
pH (aqueous solution 5%)	5 to 7	Magnesium (Mg)	<5 ppm
Bromate, bromide, chlorate and chloride	<0.02 %	Sodium (Na)	<100 ppm
Calcium (Ca)	<200 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<10 ppm
Iodide	<0.001 %	Total sulphur (S)	<100 ppm
Iron (Fe)	<10 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.
Potassium iodate
extra pure
SLR


packaging	product code
100 g Plastic jar	P/5760/48
500 g Plastic jar	P/5760/53

KIO₃ UN: 1479
CAS: 7758-05-6 HS-Nr: 28299090
MW: 214 EINECS: 231-831-9
Density at 20°C: 3.93 Risk: R8, R22, R36/37/38
Melting point: 560°C Safety: S17, S26, S37/39
ADR/RID: 5.1/II


Assay: >99.5%
Guaranteed analysis

Loss on drying	<0.2%	Lead (Pb)	<50 ppm
Bromate, bromide, chlorate and chloride	<0.1%	Magnesium (Mg)	<20 ppm
Calcium (Ca)	<500 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<50 ppm	Total silicon (Si)	<50 ppm
Iodide	<0.005%	Total sulphur (S)	<500 ppm
Iron (Fe)	<50 ppm	Zinc (Zn)	<50 ppm

Potassium iodate 0.025M solution stabilized with 10 ppm mercury(II) chloride **NEW SPEC.**

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
2.5 L Glass bottle	J/6700/17

HS-Nr: 28299090

Guaranteed analysis

Value between 0.024 to 0.026

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Potassium iodate 0.05M solution stabilized with 10 ppm mercury(II) chloride **NEW SPEC.**

NIST Standard solution ready to use, For Volumetric analysis

Eur.Ph., USP, BP

packaging	product code
1 L Glass bottle	J/6690/15
2.5 L Glass bottle	J/6690/17

HS-Nr: 28299090

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Potassium iodide

Certified AR



packaging	product code
100 g Plastic jar	P/5880/48
250 g Plastic jar	P/5880/50
500 g Plastic jar	P/5880/53
1 kg Plastic jar	P/5880/60
3 kg Plastic jar	P/5880/63
25 kg Plastic screw top Keg	P/5880/70

KI
CAS: 7681-11-0
MW: 166.01
Density at 20°C: 3.13
Boiling point: 1330°C

Boiling pressure: 760 mmHg
Melting point: 680°C
HS-Nr: 28276000
Safety: S24/25

Assay: >99.9%

Guaranteed analysis

Loss on drying <0.2%	Lead (Pb) <2 ppm
pH (aqueous solution 5%) 6 to 8	Magnesium (Mg) <5 ppm
Substance reducing iodine <0.001%	Sodium (Na) <500 ppm
Water-insoluble <0.005%	Total chloride (Cl) <0.1 %
Calcium (Ca) <5 ppm	Total nitrogen (N) <10 ppm
Chloride and Bromide <0.01 %	Total phosphorus (P) <10 ppm
Copper (Cu) <2 ppm	Total silicon (Si) <10 ppm
Iodate (IO ₃) <2 ppm	Total sulphur (S) <20 ppm
Iron (Fe) <2 ppm	Zinc (Zn) <10 ppm

Typical analysis

Aluminium (Al) <2 ppm	Manganese (Mn) <2 ppm
Arsenic (As) <0.1 ppm	Molybdenum (Mo) <2 ppm
Barium (Ba) <2 ppm	Nickel (Ni) <2 ppm
Cadmium (Cd) <2 ppm	Silver (Ag) <2 ppm
Chromium (Cr) <2 ppm	Strontium (Sr) <5 ppm
Cobalt (Co) <2 ppm	Titanium (Ti) <2 ppm
Lithium (Li) <2 ppm	Vanadium (V) <2 ppm

Lot analysis on the label.

Potassium iodide

extra pure

SLR



packaging	product code
250 g Plastic jar	P/5840/50
500 g Plastic jar	P/5840/53
1 kg Plastic jar	P/5840/60
5 kg Plastic jar	P/5840/65
10 kg Plastic drum	P/5840/68

KI
CAS: 7681-11-0
MW: 166.01
Density at 20°C: 3.13
Boiling point: 1330°C

Boiling pressure: 760 mmHg
Melting point: 680°C
HS-Nr: 28276000
EINECS: 231-659-4
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Loss on drying <0.5%	Magnesium (Mg) <20 ppm
Calcium (Ca) <20 ppm	Sodium (Na) <2000 ppm
Copper (Cu) <10 ppm	Total phosphorus (P) <50 ppm
Iodate (IO ₃) <10 ppm	Total silicon (Si) <50 ppm
Iron (Fe) <10 ppm	Total sulphur (S) <100 ppm
Lead (Pb) <10 ppm	Zinc (Zn) <50 ppm

Potassium iron(III)cyanide

See Potassium hexacyanoferrate(III), page 209



Potassium metabisulfite

for analysis

Certified AR



packaging	product code
500 g Plastic jar	P/5960/53
1 kg Plastic jar	P/5960/60

K₂O₅S₂
CAS: 16731-55-8
MW: 222.33
Melting point: 190 °C

HS-Nr: 28322000
EINECS: 240-795-3
Risk: R31, R37, R41
Safety: S26, S39, S50A



Assay: >96%

Guaranteed analysis

Calcium (Ca) <50 ppm	Sodium (Na) <1000 ppm
Copper (Cu) <10 ppm	Total chloride (Cl) <0.02 %
Iron (Fe) <10 ppm	Total phosphorus (P) <20 ppm
Lead (Pb) <10 ppm	Total silicon (Si) <10 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <10 ppm

Typical analysis

Aluminium (Al) <5 ppm	Manganese (Mn) <5 ppm
Arsenic (As) <0.2 ppm	Molybdenum (Mo) <5 ppm
Barium (Ba) <5 ppm	Nickel (Ni) <5 ppm
Cadmium (Cd) <5 ppm	Silver (Ag) <5 ppm
Chromium (Cr) <5 ppm	Strontium (Sr) <5 ppm
Cobalt (Co) <5 ppm	Titanium (Ti) <5 ppm
Lithium (Li) <5 ppm	Vanadium (V) <5 ppm

Lot analysis on the label.

Potassium metabisulfite

extra pure

SLR



packaging	product code
500 g Plastic jar	P/5920/53
1 kg Plastic jar	P/5920/60

K₂O₅S₂
CAS: 16731-55-8
MW: 222.33
Melting point: 190 °C

HS-Nr: 28322000
EINECS: 240-795-3
Risk: R31, R37, R41
Safety: S26, S39, S50A



Assay: >95%

Guaranteed analysis

Calcium (Ca) <200 ppm	Sodium (Na) <5000 ppm
Copper (Cu) <50 ppm	Total chloride (Cl) <0.1 %
Iron (Fe) <50 ppm	Total phosphorus (P) <50 ppm
Lead (Pb) <50 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <50 ppm

Acids, Bases and Water

for Trace Metal analysis

The right grade for the right detection level.

Choose between Optima®, Trace Metal® & Primar Plus® grade.

Read more page 9



Potassium nitrate
for analysis

Certified AR, Eur.Ph., BP



packaging	product code
500 g Plastic jar	P/6120/53
1 kg Plastic jar	P/6120/60
5 kg Plastic jar	P/6120/65

KNO₃
CAS: 7757-79-1
MW: 101.11
Density at 20°C: 2.1
Boiling point: 400°C
Boiling pressure: 760 mmHg
Melting point: 334°C

ADR/RID: 5.1/III
UN: 1486
HS-Nr: 28342100
EINECS: 231-818-8
Risk: R8
Safety: S17



Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 8	Nitrite (NO ₂)	<0.0001 %
Ammonium (NH ₄)	<0.001 %	Sodium (Na)	<500 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<1 ppm	Total phosphorus (P)	<5 ppm
Iodate (IO ₃)	<0.5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Potassium nitrate
extra pure

SLR



packaging	product code
500 g Plastic jar	P/6080/53
1 kg Plastic jar	P/6080/60
5 kg Plastic jar	P/6080/65

KNO₃
CAS: 7757-79-1
MW: 101.11
Density at 20°C: 2.1
Boiling point: 400°C
Boiling pressure: 760 mmHg
Melting point: 334°C

ADR/RID: 5.1/III
UN: 1486
HS-Nr: 28342100
EINECS: 231-818-8
Risk: R8
Safety: S17



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Sodium (Na)	<2000 ppm		

Potassium nitrate
Technical

packaging	product code
1 kg Plastic jar	P/6040/60
3 kg Plastic jar	P/6040/63

KNO₃
CAS: 7757-79-1
MW: 101.11
Density at 20°C: 2.1
Boiling point: 400°C
Boiling pressure: 760 mmHg
Melting point: 334°C

ADR/RID: 5.1/III
UN: 1486
HS-Nr: 28342100
EINECS: 231-818-8
Risk: R8
Safety: S17

Potassium nitrate
for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/6162/50
1 kg Plastic jar	P/6162/60

KNO₃
CAS: 7758-09-0
MW: 85.11
Melting point: 387°C
ADR/RID: 5.1/II

UN: 1488
HS-Nr: 28341000
EINECS: 231-832-4
Risk: R8, R25, R50
Safety: S45, S61



Assay: >99%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<5000 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<5 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Lithium (Li)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Potassium nitrate
extra pure

SLR



packaging	product code
500 g Plastic jar	P/6160/53

KNO₃
CAS: 7758-09-0
MW: 85.11
Melting point: 387°C
ADR/RID: 5.1/II

UN: 1488
HS-Nr: 28341000
EINECS: 231-832-4
Risk: R8, R25, R50
Safety: S45, S61



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<50 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<100 ppm
Sodium (Na)	<10 000 ppm		

tri-Potassium orthophosphate monohydrate
extra pure

SLR



packaging	product code
500 g Plastic jar	P/6280/53

K₃PO₄·H₂O
CAS: 7778-53-2
MW: 230.29
Density at 20°C: 2.56
Melting point: 1340°C

UN: 3262
HS-Nr: 28352400
EINECS: 231-907-1
Risk: R35
Safety: S26, S36/37/39, S45



Assay: >95%

Guaranteed analysis

Lead (Pb)	<50 ppm	Total chloride (Cl)	<0.005%
Sulfate (SO ₄)	<0.005%		

Potassium oxalate monohydrate
for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/6360/50
500 g Plastic jar	P/6360/53
25 kg Fibre Keg	P/6360/70

C₂K₂O₄·H₂O
CAS: 6487-48-5
MW: 184.23
Melting point: 356°C
ADR/RID: 6.1/III

UN: 2811
HS-Nr: 29171100
EINECS: 209-506-8
Risk: R21/22
Safety: S24/25



Assay: 99.5 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 8.5	Molybdenum (Mo)	<5 ppm
Aluminium (Al)	<5 ppm	Nickel (Ni)	<5 ppm
Barium (Ba)	<5 ppm	Silver (Ag)	<5 ppm
Cadmium (Cd)	<5 ppm	Sodium (Na)	<200 ppm
Calcium (Ca)	<5 ppm	Strontium (Sr)	<5 ppm
Chromium (Cr)	<5 ppm	Titanium (Ti)	<5 ppm
Cobalt (Co)	<5 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<5 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Lithium (Li)	<5 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm	Zinc (Zn)	<20 ppm

Lot analysis on the label.

Potassium oxalate monohydrate extra pure

SLR



packaging	product code
500 g Plastic jar	P/6320/53
1 kg Plastic jar	P/6320/60

$C_2K_2O_4 \cdot H_2O$ UN: 2811
CAS: 6487-48-5 HS-Nr: 29171100
MW: 184.23 EINECS: 209-506-8
Melting point: 356°C Risk: R21/22
ADR/RID: 6.1/III Safety: S24/25



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm
Sodium (Na)	<1000 ppm		

Potassium perchlorate extra pure

SLR



packaging	product code
500 g Plastic jar	P/6400/53

$KClO_4$ UN: 1489
CAS: 7778-74-7 HS-Nr: 28299010
MW: 138.55 EINECS: 231-912-9
Melting point: 400 °C Risk: R9, R22
ADR/RID: 5.1/II Safety: S13, S22, S27



Assay: >99%

Guaranteed analysis

Sodium (Na)	<100 ppm	Total chloride (Cl)	<0.054%
Sulfate (SO_4)	<0.005%		

Potassium periodate extra pure

SLR



packaging	product code
500 g Plastic jar	P/6440/53

KIO_4 UN: 1479
CAS: 7790-21-8 HS-Nr: 28299090
MW: 230 EINECS: 232-196-0
Melting point: 582°C Risk: R8, R36/37/38
ADR/RID: 5.1/II Safety: S17, S26, S37/39



Assay: >99%

Guaranteed analysis

Loss on drying	<0.5%	Magnesium (Mg)	<50 ppm
Calcium (Ca)	<100 ppm	Sodium (Na)	<1000 ppm
Copper (Cu)	<20 ppm	Total silicon (Si)	<100 ppm
Iodide	<0.005%	Total sulphur (S)	<500 ppm
Iron (Fe)	<54 ppm	Zinc (Zn)	<50 ppm
Lead (Pb)	<20 ppm		

Potassium permanganate for analysis

Certified AR, Eur.Ph., USP, BP



packaging	product code
250 g Glass packaging	P/6560/50
500 g Glass packaging	P/6560/53
5 kg Plastic screw top Keg	P/6560/65
25 kg Metal drum	P/6560/70

$KMnO_4$ UN: 1490
CAS: 7722-64-7 HS-Nr: 28416100
MW: 158.04 EINECS: 231-760-3
Density at 20°C: 2.7 Risk: R8, R22, R50/53
Melting point: 240 °C Safety: S60, S61
ADR/RID: 5.1/II



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005 %
Iron (Fe)	<20 ppm	Total nitrogen (N)	<50 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Arsenic (As)	<2 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<0.001 %	Strontium (Sr)	<5 ppm
Cadmium (Cd)	<5 ppm	Titanium (Ti)	<5 ppm
Cobalt (Co)	<5 ppm	Vanadium (V)	<5 ppm
Lithium (Li)	<5 ppm		

Lot analysis on the label.

Potassium permanganate extra pure

SLR



packaging	product code
500 g Glass packaging	P/6520/53

$KMnO_4$ UN: 1490
CAS: 7722-64-7 HS-Nr: 28416010
MW: 158.04 EINECS: 231-760-3
Density at 20°C: 2.7 Risk: R8, R22, R50/53
Melting point: 240 °C Safety: S60, S61
ADR/RID: 5.1/II



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<100 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<100 ppm	Total sulphur (S)	<500 ppm
Lead (Pb)	<100 ppm	Zinc (Zn)	<500 ppm
Magnesium (Mg)	<100 ppm		

Potassium permanganate solution 0.02M (0.1N) NEW SPEC. NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/6900/15
2.5 L Coated Glass Bottle	J/6900/PB17

Density at 20°C: 1
HS-Nr: 28416000
Safety: S24/25

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Potassium permanganate solution 0.02M (0.1N) NEW SPEC. NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/6900C/05
6 ampoule	J/6900C/90

Density at 20°C: 1
HS-Nr: 28416100
Safety: S24, S25

Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Potassium persulfate
for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/6640/50
500 g Plastic jar	P/6640/53

$K_2S_2O_8$
CAS: 7727-21-1
MW: 270.31
Density at 20°C: 2.47
Melting point: 100 °C
ADR/RID: 5.1/III

UN: 1492
HS-Nr: 28334000
EINECS: 231-781-8
Risk: R8, R22, R36/37/38, R42/43
Safety: S22, S24, S26, S37



Assay: >99%

Guaranteed analysis

Acidity	<0.01 meq/g	Sodium (Na)	<100 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.002 %
Copper (Cu)	<5 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<20 ppm		

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Potassium persulfate
extra pure

SLR



packaging	product code
500 g Plastic jar	P/6600/53

$K_2S_2O_8$
CAS: 7727-21-1
MW: 270.31
Density at 20°C: 2.47
Melting point: 100 °C
ADR/RID: 5.1/III

UN: 1492
HS-Nr: 28334000
EINECS: 231-781-8
Risk: R8, R22, R36/37/38, R42/43
Safety: S22, S24, S26, S37



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.05%
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<100 ppm		

Potassium pyrogallate solution
pure

packaging	product code
2.5 L Coated Glass Bottle	J/7000/PB17

ADR/RID: 8/II
UN: 1760
HS-Nr: 29072990

Risk: R35
Safety: S2, S26, S27, S37/39

Potassium pyrosulfate
extra pure

SLR



packaging	product code
500 g Plastic jar	P/6720/53

$K_2S_2O_7$
CAS: 7790-62-7
MW: 254.31
Density at 20°C: 2.51
Melting point: 325°C
ADR/RID: 8/III

UN: 1759
HS-Nr: 28332990
EINECS: 232-216-8
Risk: R41
Safety: S26, S28A



Assay: >97%

Guaranteed analysis

Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.003%
Lead (Pb)	<10 ppm		

Potassium sodium tartrate tetrahydrate
for analysis, crystals

Certified AR



packaging	product code
500 g Plastic jar	P/6880/53
1 kg Plastic jar	P/6880/60
2.5 kg Plastic jar	P/6880/62

$C_4H_4KNaO_6 \cdot 4H_2O$
CAS: 6381-59-5
MW: 282.23
Melting point: 70 to 80°C

HS-Nr: 29181300
EINECS: 206-156-8
Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 8.5	Total chloride (Cl)	<0.005 %
Reducing substance	Conform	Total nitrogen (N)	<50 ppm
Calcium (Ca)	<20 ppm	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Potassium sodium tartrate tetrahydrate
extra pure, crystals

SLR



packaging	product code
500 g Plastic jar	P/6800/53
25 kg Fibre Keg	P/6800/70

$C_4H_4KNaO_6 \cdot 4H_2O$
CAS: 6381-59-5
MW: 282.23
Melting point: 70 to 80°C

HS-Nr: 29181300
EINECS: 206-156-8
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 9	Total chloride (Cl)	<0.02%
Calcium (Ca)	<100 ppm	Total phosphorus (P)	<500 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<100 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<50 ppm		

Potassium sodium tartrate tetrahydrate
extra pure, powder

SLR



packaging	product code
500 g Plastic jar	P/6840/53

$C_4H_4KNaO_6 \cdot 4H_2O$
CAS: 6381-59-5
MW: 282.23
Melting point: 70 to 80°C

HS-Nr: 29181300
EINECS: 206-156-8
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 9	Magnesium (Mg)	<50 ppm
Water-insoluble	<0.05%	Total chloride (Cl)	<0.02%
Calcium (Ca)	<100 ppm	Total phosphorus (P)	<50 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<100 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<10 ppm

pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Potassium sulfate for analysis

Certified AR



packaging	product code
500 g Plastic jar	P/7000/53
1 kg Plastic jar	P/7000/60
5 kg Plastic jar	P/7000/65

K_2SO_4
 CAS: 7778-80-5
 MW: 174.27
 Density at 20°C: 2.66
 Boiling point: 1689°C
 Boiling pressure: 760 mmHg
 Melting point: 1067°C
 HS-Nr: 31043000
 EINECS: 231-915-5
 Safety: S24/25

Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	5.5 to 7.5	Sodium (Na)	<500 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<2 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Molybdenum (Mo)	<1 ppm
Cadmium (Cd)	<1 ppm	Nickel (Ni)	<1 ppm
Chromium (Cr)	<1 ppm	Silver (Ag)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Potassium sulfate extra pure

SLR



packaging	product code
500 g Plastic jar	P/6960/53
1 kg Plastic jar	P/6960/60
5 kg Plastic jar	P/6960/65

K_2SO_4
 CAS: 7778-80-5
 MW: 174.27
 Density at 20°C: 2.66
 Boiling point: 1689°C
 Boiling pressure: 760 mmHg
 Melting point: 1067°C
 HS-Nr: 31043000
 EINECS: 231-915-5
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<2000 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<100 ppm		

Potassium (+)-tartrate extra pure

SLR



packaging	product code
500 g Plastic jar	P/7080/53

$C_4H_4K_2O_6$
 CAS: 921-53-9
 MW: 235.28
 HS-Nr: 29181300
 EINECS: 213-067-8

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<5000 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<50 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<50 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<50 ppm		

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
 & Multi-elemental standard
 solution to discover on page 256



Potassium tetraborate tetrahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	P/7140/53

$K_2B_4O_7 \cdot 4H_2O$
 CAS: 12045-78-2
 MW: 305.51
 Melting point: 850°C
 HS-Nr: 28402090
 EINECS: 215-575-5
 Risk: R62
 Safety: S36/37



Assay: >98.5%

Guaranteed analysis

Sulfate (SO_4)	<0.02%	Total chloride (Cl)	<0.005%
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Potassium tetrachloroplatinate(II) extra pure

SLR



packaging	product code
1 g Glass tube	P/7170/43

K_2PtCl_4
 CAS: 10025-99-7
 MW: 415.11
 ADR/RID: 8(6.1)/III
 UN: 2923
 HS-Nr: 28439090
 EINECS: 233-050-9
 Risk: R25, R38, R41, R42/43
 Safety: S22, S26, S36/37/39, S45



Potassium tetraoxalate dihydrate for analysis

Certified AR



packaging	product code
250 g Plastic Jar	P/7200/50

$C_4H_3KO_8 \cdot 2H_2O$
 CAS: 6100-20-5
 MW: 254.2
 ADR/RID: 6.1/III
 UN: 2811
 HS-Nr: 29171100
 EINECS: 204-874-6
 Risk: R21/22
 Safety: S24/25



Assay: 99.5 to 100.2%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<100 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.0005%
Iron (Fe)	<10 ppm	Total nitrogen (N)	<100 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<20 ppm
Lithium (Li)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<10 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm	Zinc (Zn)	<5 ppm

Lot analysis on the label.

NIST Certified Standard from SPEX

A full range of Mono
 & Multi-elemental standard
 and Calibration solution
 for ICP & ICP-MS
 Discover them on page 258



Potassium thiocyanate
for analysis

Certified AR



packaging	product code
250 g Plastic jar	P/7280/50
500 g Plastic jar	P/7280/53

KSCN
CAS: 333-20-0
MW: 97.18
Density at 20°C: 1.89
Boiling point: D500°C
Melting point: 170 to 179°C
HS-Nr: 28429080
EINECS: 206-370-1
Risk: R20/21/22, R32, R52/53
Safety: S13, S61



Assay: >99.5%

Guaranteed analysis

Substance consuming iodine	<0.01%	Magnesium (Mg)	<10 ppm
Ammonium (NH ₄)	<0.002 %	Sodium (Na)	<100 ppm
Cadmium (Cd)	<5 ppm	Sulfate (SO ₄)	<0.002 %
Calcium (Ca)	<20 ppm	Sulfide (S)	<0.001 %
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.005 %
Iron (Fe)	<1 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Chromium (Cr)	<5 ppm	Silver (Ag)	<5 ppm
Cobalt (Co)	<5 ppm	Strontium (Sr)	<5 ppm
Lithium (Li)	<5 ppm	Titanium (Ti)	<5 ppm
Manganese (Mn)	<5 ppm	Vanadium (V)	<5 ppm

Lot analysis on the label.

Potassium thiocyanate
extra pure

SLR



packaging	product code
250 g Plastic jar	P/7240/50
500 g Plastic jar	P/7240/53

KSCN
CAS: 333-20-0
MW: 97.18
Density at 20°C: 1.89
Boiling point: D500°C
Melting point: 170 to 179°C
HS-Nr: 28429080
EINECS: 206-370-1
Risk: R20/21/22, R32, R52/53
Safety: S13, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<2000 ppm
Copper (Cu)	<20 ppm	Sulfate (SO ₄)	<0.05%
Iron (Fe)	<10 ppm	Total chloride (Cl)	<0.01%
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Potassium thiocyanate solution 0.1M (0.1N) **NEW SPEC.**
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/7050/15
2.5 L Plastic bottle	J/7050/PB17

HS-Nr: 28429080
Risk: R21/22, R32
Safety: S2, S13

Manufactured to a tolerance of $\pm 0.2\%$.

See the full range of Standard Volumetric solution page 266.

Praseodymium standard metal solution 1000 ppm
for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLPR22Y
500 mL Plastic bottle	SPPLPR22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Preservative

For microscopy, odourless

packaging	product code
500 mL Coated Glass Bottle	P/7300/PB08

Density at 20°C: 1.11
HS-Nr: 38220000
Risk: R22
Safety: S23D, S24/25

L-Proline
pure

packaging	product code
100 g Glass packaging	P/7425/48

C₅H₉NO₂
CAS: 147-85-3
MW: 115.13
Melting point: 228-233°C
HS-Nr: 29339090
EINECS: 205-702-2
Safety: S24/25

Assay: >99%

Guaranteed analysis

Residue after ignition	<0.1%	Iron (Fe)	<10 ppm
Specific rotation (α 20/D)	+85.5° to -84°	Lead (Pb)	<10 ppm
Water	<0.5%		

Propane-1,2-diol
extra pure

SLR, Eur.Ph., BP, USP



packaging	product code
500 mL Glass bottle	P/7440/08
2.5 L Glass bottle	P/7440/17
25 L Metal drum	P/7440/25
200 L Metal drum	P/7440/27

C₃H₈O₂
CAS: 57-55-6
MW: 76.09
Density at 20°C: 1.03
Boiling point: 187°C
Boiling pressure: 760 mmHg
Melting point: -60°C
Flash point: 99°C
HS-Nr: 29053200
EINECS: 200-338-0
Safety: S24/25

Assay (GC): >99%

Guaranteed analysis

Acidity <0.0005 meq/g

see page 279 for suitable Tap & accessories.

Propane-1,3-diol
pure

packaging	product code
500 mL Glass bottle	P/7450/08

C₃H₈O₂
CAS: 504-63-2
MW: 76.09
Density at 20°C: 1.04 to 1.06
Boiling point: 214°C
Boiling pressure: 760 mmHg
Melting point: -32°C
Flash point: 140°C
HS-Nr: 29053985
EINECS: 207-997-3
Safety: S24/25

Propan-1-ol
for HPLC

Certified



packaging	product code
1 L Glass bottle	P/7486/15
2.5 L Glass bottle	P/7486/17

C₃H₈O
CAS: 71-23-8
MW: 60.1
Density at 20°C: 0.8
Boiling point: 97°C
Boiling pressure: 760 mmHg
Melting point: -127°C
Flash point: 15°C
ADR/RID: 3/II
UN: 1274
HS-Nr: 29051200
EINECS: 200-746-9
Risk: R11, R41, R67
Safety: S7, S16, S24, S26, S39

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Water	<0.05%
Residue after evaporation	<10 ppm		



Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

220 nm	<0.7 A.U.	250 nm	<0.05 A.U.
230 nm	<0.25 A.U.	260 nm	<0.05 A.U.
240 nm	<0.1 A.U.	270 nm	<0.01 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

Propan-1-ol for analysis

Certified AR

packaging	product code
1 L Glass bottle	P/7481/15
1 L Coated Glass Bottle	P/7481/PB15
2.5 L Glass bottle	P/7481/17
5 L Metal can	P/7481/21
25 L Metal drum	P/7481/25
200 L Metal drum	P/7481/27

C_3H_8O
CAS: 71-23-8
MW: 60.1
Density at 20°C: 0.8
Boiling point: 97°C
Boiling pressure: 760 mmHg
Melting point: -127°C
Flash point: 15°C
ADR/RID: 3/II
UN: 1274
HS-Nr: 29051200
EINECS: 200-746-9
Risk: R11, R41, R67
Safety: S7, S16, S24, S26, S39



Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Lead (Pb)	<0.02 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.1 ppm
Residue after evaporation	<10 ppm	Potassium (K)	<0.2 ppm
Substances darkened	<10 APHA	Sodium (Na)	<1 ppm
by (H ₂ SO ₄)	<10 APHA	Total phosphorus (P)	<0.1 ppm
Substances	<0.0005%	Total silicon (Si)	<0.05 ppm
reducing KMnO ₄	<0.1%	Total sulphur (S)	<0.5 ppm
Water	<0.2 ppm	Zinc (Zn)	<0.1 ppm
Calcium (Ca)	<0.02 ppm	Ethanol	<0.001 %
Copper (Cu)	<0.02 ppm	Methanol	<0.005 %
Iron (Fe)	<0.1 ppm	Propan-2-ol	<0.005 %

Typical analysis

Aluminium (Al)	<0.02 ppm	Manganese (Mn)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Propan-1-ol extra pure

SLR

packaging	product code
500 mL Glass bottle	P/7480/08
2.5 L Glass bottle	P/7480/17
5 L Metal can	P/7480/21
25 L Metal drum	P/7480/25
200 L Metal drum	P/7480/27

C_3H_8O
CAS: 71-23-8
MW: 60.1
Density at 20°C: 0.8
Boiling point: 97°C
Boiling pressure: 760 mmHg
Melting point: -127°C
Flash point: 15°C
ADR/RID: 3/II
UN: 1274
HS-Nr: 29051200
EINECS: 200-746-9
Risk: R11, R41, R67
Safety: S7, S16, S24, S26, S39



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Iron (Fe)	<5 ppm
Colour	<10 APHA	Lead (Pb)	<2 ppm
Residue after evaporation	<50 ppm	Magnesium (Mg)	<2 ppm
Substances darkened	<20 APHA	Potassium (K)	<2 ppm
by (H ₂ SO ₄)	<0.01%	Sodium (Na)	<5 ppm
Substances	<0.5%	Total phosphorus (P)	<2 ppm
reducing KMnO ₄	<5 ppm	Total silicon (Si)	<2 ppm
Water	<2 ppm	Total sulphur (S)	<2 ppm
Calcium (Ca)	<2 ppm	Zinc (Zn)	<2 ppm
Copper (Cu)	<2 ppm		

see page 279 for suitable Tap & accessories.

Propan-2-ol See Isopropanol, page 136



2-Propanone See Acetone, page 3



Propionaldehyde extra pure

SLR

packaging	product code
250 mL Coated Glass Bottle	P/7520/PB07

C_3H_6O
CAS: 123-38-6
MW: 58.08
Density at 20°C: <0.8
Boiling point: 48°C
Boiling pressure: 760 mmHg
Melting point: -81°C
Flash point: -40°C
ADR/RID: 3/II
UN: 1275
HS-Nr: 29121900
EINECS: 204-623-0
Risk: R11, R36/37/38
Safety: S9, S16, S29



Assay (GC): >95%

Guaranteed analysis

Acidity <0.1 meq/g

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

Refractive index 1.361 to 1.365

Propionic acid for analysis

Certified AR

packaging	product code
500 mL Plastic bottle	P/7564/PB08

$C_3H_6O_2$
CAS: 79-09-4
MW: 74.08
Density at 20°C: 0.99
Boiling point: 141°C
Boiling pressure: 760 mmHg
Melting point: -22°C
Flash point: 51°C
ADR/RID: 8(3)/II
UN: 3463
HS-Nr: 29155000
EINECS: 201-176-3
Risk: R34
Safety: S23, S36, S45



Assay: >99%

Guaranteed analysis

Aluminium (Al)	<0.5 ppm	Molybdenum (Mo)	<0.2 ppm
Barium (Ba)	<0.5 ppm	Nickel (Ni)	<0.2 ppm
Cadmium (Cd)	<0.2 ppm	Potassium (K)	<1 ppm
Calcium (Ca)	<5 ppm	Sodium (Na)	<5 ppm
Chromium (Cr)	<0.5 ppm	Strontium (Sr)	<0.2 ppm
Cobalt (Co)	<0.2 ppm	Titanium (Ti)	<0.2 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<2 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<1 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<5 ppm
Lithium (Li)	<0.2 ppm	Vanadium (V)	<0.2 ppm
Magnesium (Mg)	<2 ppm	Zinc (Zn)	<0.2 ppm
Manganese (Mn)	<0.2 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

280 nm <0.1 A.U.

Lot analysis on the label.

Fisher Chemical products takes care of the environment!

Our packaging used for shipping
is 100% recyclable and complies
with UN regulations for your safety.
Choosing for Fisher Chemical products
therefore reduces your waste
management cost without
compromising safety and
contributing to a cleaner
environment.



Propionic acid
extra pure

SLR



packaging	product code
500 mL Plastic bottle	P/7560/PB08
2.5 L Plastic bottle	P/7560/PB17
25 L Metal drum	P/7560/25

C₃H₆O₂
CAS: 79-09-4
MW: 74.08
Density at 20°C: 0.99
Boiling point: 141°C
Boiling pressure: 760 mmHg
Melting point: -22°C
Flash point: 51°C
ADR/RID: 8(3)/II
HS-Nr: 29155000
Risk: R34
Safety: S23, S36, S45



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<20 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<10 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<10 ppm		

see page 279 for suitable Tap & accessories.

iso-Propyl acetate
pure

packaging	product code
500 mL Glass bottle	P/7640/08
2.5 L Glass bottle	P/7640/17
2.5 L Coated Glass Bottle	P/7640/PB17

C₅H₁₀O₂
CAS: 108-21-4
MW: 102.13
Density at 20°C: 0.87
Boiling point: 88.8°C
Boiling pressure: 760 mmHg
Melting point: -73°C
Flash point: 11°C
ADR/RID: 3/II
UN: 1220
HS-Nr: 29153910
EINECS: 203-561-1
Risk: R11, R36, R66, R67
Safety: S16, S26, S29, S33



Assay (GC): >98%

Guaranteed analysis

Acidity	<0.002 meq/g	Residue after evaporation	<100 ppm
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n-Propyl acetate
extra pure

SLR



packaging	product code
500 mL Glass bottle	P/7600/08
2.5 L Glass bottle	P/7600/17

C₅H₁₀O₂
CAS: 109-60-4
MW: 102.13
Density at 20°C: 0.88
Boiling point: 102°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: 10°C
ADR/RID: 3/II
UN: 1276
HS-Nr: 29153910
EINECS: 203-686-1
Risk: R11, R36, R66, R67
Safety: S16, S26, S29, S33



Assay (GC): >98%

Guaranteed analysis

Residue after evaporation	<100 ppm
---------------------------------	----------

Propyl alcohol See Propan-1-ol, page 218



Propylene glycol See Propane-1,2-diol, page 218



Pumice stone

Technical, granular about 7-9mm

packaging	product code
500 g Plastic jar	P/7800/53

HS-Nr: 38220000

Pumice stone

Technical, powder 240 mesh

packaging	product code
3 kg Plastic jar	P/7760/63

HS-Nr: 38220000

Pyridine

For IR Spectroscopy

packaging	product code
100 mL Coated Glass Bottle	P/7965/PB05
500 mL Coated Glass Bottle	P/7965/PB08

C₅H₅N
CAS: 110-86-1
MW: 79.1
Density at 20°C: 0.98
Boiling point: 115 to 116°C
Boiling pressure: 760 mmHg
Melting point: -42°C
Flash point: 17°C
ADR/RID: 3/II
UN: 1282
HS-Nr: 29333100
EINECS: 203-809-9
Risk: R11, R20/21/22
Safety: S26, S28A



Guaranteed analysis

IR Analysis Conform

Lot analysis on the label.

Pyridine
for analysis

NEW SPEC.

Certified AR



packaging	product code
500 mL Glass bottle	P/7960/08
500 mL Coated Glass Bottle	P/7960/PB08
1 L Glass bottle	P/7960/15
1 L Coated Glass Bottle	P/7960/PB15
2.5 L Coated Glass Bottle	P/7960/PB17
25 L Metal drum	P/7960/25

C₅H₅N
CAS: 110-86-1
MW: 79.1
Density at 20°C: 0.98
Boiling point: 115-116°C
Boiling pressure: 760 mmHg
Melting point: -42°C
Flash point: 17°C
ADR/RID: 3/II
UN: 1282
HS-Nr: 29333100
EINECS: 203-809-9
Risk: R11, R20/21/22
Safety: S26, S28A



Assay: >99.5%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.1 ppm
Water	<0.05 %	Sodium (Na)	<1 ppm
Ammonium (NH ₄)	<0.002 %	Total phosphorus (P)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Lead (Pb)	<0.05 ppm	Chlorine	<5 ppm
Magnesium (Mg)	<0.1 ppm	Residue after evaporation	<20 ppm

Typical analysis

Aluminium (Al)	0.02 ppm	Manganese (Mn)	0.02 ppm
Barium (Ba)	0.02 ppm	Molybdenum (Mo)	0.02 ppm
Cadmium (Cd)	0.02 ppm	Nickel (Ni)	0.02 ppm
Chromium (Cr)	0.02 ppm	Strontium (Sr)	0.02 ppm
Cobalt (Co)	0.02 ppm	Titanium (Ti)	0.02 ppm
Lithium (Li)	0.02 ppm	Vanadium (V)	0.02 ppm

see page 279 for suitable Tap & accessories.

Pyridine, anhydrous
extra pure

SLR



packaging	product code
500 mL Coated Glass Bottle	P/7940/PB08
2.5 L Coated Glass Bottle	P/7940/PB17

C₅H₅N
CAS: 110-86-1
MW: 79.1
Density at 20°C: 0.98
Boiling point: 115 to 116°C
Boiling pressure: 760 mmHg
Melting point: -42°C
Flash point: 17°C
ADR/RID: 3/II
UN: 1282
HS-Nr: 29333100
EINECS: 203-809-9
Risk: R11, R20/21/22
Safety: S26, S28A



For the analysis by Karl Fischer titration in non-aqueous.

Pyridine NEW SPEC.
extra pure

SLR

SpeciFied

packaging	product code
500 mL Glass bottle	P/7920/08
2.5 L Coated Glass Bottle	P/7920/PB17
5 L Metal can	P/7920/21
25 L Metal drum	P/7920/25

C₅H₅N
CAS: 110-86-1
MW: 79.1
Density at 20°C: 0.98
Boiling point: 115-116°C
Boiling pressure: 760 mmHg
Melting point: -42°C

Flash point: 17°C
ADR/RID: 3/II
UN: 1282
HS-Nr: 29333100
EINECS: 203-809-9
Risk: R11, R20/21/22
Safety: S26, S28A



Assay: >99%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<2 ppm
Water	<0.1 %	Residue after evaporation	<200 ppm
Calcium (Ca)	<5 ppm	Sodium (Na)	<5 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<2 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<2 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<2 ppm
Magnesium (Mg)	<2 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

3-Pyridinecarboxylic acid See Nicotinic acid, page 173



Pyridinium chloride
extra pure

SLR

SpeciFied

packaging	product code
100 g Glass packaging	P/7980/48

C₅H₅N.HCl
CAS: 628-13-7
MW: 115.56
Boiling point: 222 to 224°C
Boiling pressure: 760 mmHg
Melting point: 140 to 146°C

ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29333100
EINECS: 211-027-4
Risk: R22, R36/37/38
Safety: S26, S37/39



Assay: >97%

1-(2-Pyridylazo)-2-naphthol
pure

packaging	product code
1 g Glass tube	P/8000/43
5 g Glass packaging	P/8000/44

C₁₅H₁₁N₃O
CAS: 85-85-8
MW: 249.27
Melting point: 138 to 141°C

HS-Nr: 29333990
EINECS: 201-637-9
Risk: R36/37/38
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

4-(2-Pyridylazo)-resorcinol mono sodium salt
pure

packaging	product code
1 g Glass tube	P/8040/43

C₁₁H₈N₂NaO₂.H₂O
CAS: 16593-81-0
Melting point: 188°C
HS-Nr: 29333990

EINECS: 214-528-6
Risk: R36/37/38
Safety: S26, S37/39



Pyrocatechol See Catechol, page 60



Pyrogallol
for analysis

Certified AR

AR

packaging	product code
100 g Glass packaging	P/8122/48

C₆H₆O₃
CAS: 87-66-1
MW: 126.11
Boiling point: 309°C
Boiling pressure: 760 mmHg
Melting point: 131 to 135°C

ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29072990
EINECS: 201-762-9
Risk: R20/21/22, R52/53, R68
Safety: S36/37, S61

Xn

Assay (GC): >99%

Guaranteed analysis

pH (aqueous solution 5%)	4 to 5	Sodium (Na)	<200 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<20 ppm		

Lot analysis on the label.

Pyrogallol
extra pure

SLR

SpeciFied

packaging	product code
100 g Glass packaging	P/8120/48

C₆H₆O₃
CAS: 87-66-1
MW: 126.11
Boiling point: 309°C
Boiling pressure: 760 mmHg
Melting point: 131 to 135°C

ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29072990
EINECS: 201-762-9
Risk: R20/21/22, R52/53, R68
Safety: S36/37, S61



Assay (GC): >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<1000 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<100 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<50 ppm

Pyrogallol
pure

packaging	product code
100 g Glass packaging	P/8080/48

C₆H₆O₃
CAS: 87-66-1
MW: 126.11
Boiling point: 309°C
Boiling pressure: 760 mmHg
Melting point: 131 to 135°C

ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29072990
EINECS: 201-762-9
Risk: R20/21/22, R52/53, R68
Safety: S36/37, S61



Assay (GC): >98%

Pyrrolidine
extra pure

SLR

SpeciFied

packaging	product code
100 mL Coated Glass Bottle	P/8140/PB05

C₄H₉N
CAS: 123-75-1
MW: 71.12
Density at 20°C: 0.87
Boiling point: 86 to 88°C
Boiling pressure: 760 mmHg
Melting point: -63°C

Flash point: 3°C
ADR/RID: 3(8)/II
UN: 1922
HS-Nr: 29339990
EINECS: 204-648-7
Risk: R11, R20/21/22, R35
Safety: S16, S26, S36/37/39, S45



Assay (GC): >97%

Guaranteed analysis

Water <3%

Quinhydrone

extra pure

SLR



packaging	product code
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100 g Plastic jar

Q/0120/48

$C_{12}H_{10}O_4$
 CAS: 106-34-3
 MW: 218.21
 Melting point: 168 to 172°C
 ADR/RID: 6.1/III

UN: 2811
 HS-Nr: 29420000
 EINECS: 203-387-6
 Risk: R22, R36/37/38, R50
 Safety: S26, S29, S37/39, S61

Xn

N

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<50 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<500 ppm
IR Analysis	Conform	Total phosphorus (P)	<50 ppm
Iron (Fe)	<100 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<20 ppm

Quinine sulfate dihydrate

pure

packaging	product code
-----------	--------------

25 g Glass packaging

Q/0136/46

$C_{40}H_{48}N_4O_4 \cdot H_2SO_4 \cdot 2H_2O$
 CAS: 6119-70-6
 MW: 782.96
 Boiling pressure: 760 mmHg
 Melting point: 233-235°C

ADR/RID: 6.1/III
 UN: 1544
 HS-Nr: 29392000
 EINECS: 212-359-2
 Risk: R22, R42/43
 Safety: S24, S37, S45

Xn

Guaranteed analysis

IR Analysis Conform

Quinol

for analysis

Certified AR



packaging	product code
-----------	--------------

500 g Plastic Jar

Q/0152/53

$C_6H_6O_2$
 CAS: 123-31-9
 MW: 110.11
 Density at 20°C: 1.32
 Boiling point: 285 to 287°C
 Boiling pressure: 760 mmHg
 Melting point: 170 to 174°C
 Flash point: 165°C

ADR/RID: 9/III
 UN: 3077
 HS-Nr: 29072200
 EINECS: 204-617-8
 Risk: R22, R40, R41, R43, R50, R68
 Safety: S26, S36/37/39, S61

Xn

N

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<50 ppm	Catechol	<0.02%

Quinol

extra pure

SLR



packaging	product code
-----------	--------------

250 g Plastic Jar

Q/0150/50

500 g Plastic Jar

Q/0150/53

$C_6H_6O_2$
 CAS: 123-31-9
 MW: 110.11
 Density at 20°C: 1.32
 Boiling point: 285 to 287°C
 Boiling pressure: 760 mmHg
 Melting point: 170 to 174°C
 Flash point: 165°C

ADR/RID: 9/III
 UN: 3077
 HS-Nr: 29072200
 EINECS: 204-617-8
 Risk: R22, R40, R41, R43, R50, R68
 Safety: S26, S36/37/39, S61

Xn

N

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<50 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<200 ppm		

Quinone

See p-Benzoquinone, page 39



Raffinose hydrate

extra pure

SLR



packaging	product code
-----------	--------------

25 g Plastic jar

R/0020/46

$C_{18}H_{32}O_{16} \cdot 5H_2O$
 CAS: 512-69-6
 MW: 594.52
 Density at 20°C: 1.47

Melting point: 80°C
 HS-Nr: 29400000
 EINECS: 208-146-9

Density at 20°C: 1.47

Guaranteed analysis

Melting Point tested	78 to 82°C	Sugar reducer	<0.3%
Residue after ignition	<0.1%	Water	15 to 15.5%
Specific rotation (α 20/D)	+103° to +106°	Lead (Pb)	<10 ppm

Rennet

pure

packaging	product code
-----------	--------------

25 g Glass packaging

R/0030/46

HS-Nr: 38220000

Resazurin tablets

pure

packaging	product code
-----------	--------------

10 PC Glass packaging

R/0040/99

100 PC Glass packaging

R/0040/79

HS-Nr: 38220000

Guaranteed analysis

IR Analysis Conform

Resorcinol

for analysis

Certified AR



packaging	product code
-----------	--------------

100 g Glass packaging

R/0200/48

250 g Glass packaging

R/0200/50

$C_6H_6O_2$
 CAS: 108-46-3
 MW: 110.11
 Boiling point: 281°C
 Boiling pressure: 760 mmHg
 Melting point: 109 to 111°C
 Flash point: 127°C

ADR/RID: 6.1/III
 UN: 2876
 HS-Nr: 38220000
 EINECS: 203-585-2
 Risk: R22, R36/38, R50
 Safety: S26, S61

Xn

N

Assay (GC): >99%

Guaranteed analysis

Acidity	< 0.0005 Wednesday / g	Potassium (K)	<20 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Resorcinol

extra pure

SLR



packaging	product code
-----------	--------------

100 g Glass packaging

R/0150/48

250 g Glass packaging

R/0150/50

$C_6H_6O_2$
 CAS: 108-46-3
 MW: 110.11
 Boiling point: 281°C
 Boiling pressure: 760 mmHg
 Melting point: 109 to 111°C
 Flash point: 127°C

ADR/RID: 6.1/III
 UN: 2876
 HS-Nr: 29072100
 EINECS: 203-585-2
 Risk: R22, R36/38, R50
 Safety: S26, S61

Xn

N

Assay (GC): >98%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Sodium (Na)	<500 ppm
Copper (Cu)	<50 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<100 ppm		

Rhenium standard metal solution 1000 ppm for ICP solution in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLRE92Y
500 mL Plastic bottle	SPPLRE92X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Rhodamine B C.I. 45170 pure

packaging	product code
100 g Glass packaging	R/0250/48

C₂₈H₃₁ClN₂O₃
CAS: 81-88-9
MW: 479.02
Melting point: 210-211°C

HS-Nr: 32041300
EINECS: 201-383-9
Risk: R22, R40
Safety: S36/37, S45

Xn

Guaranteed analysis

IR Analysis Conform

Conforming to the IR spectrum of reference.

Rhodium standard metal solution 1000 ppm for ICP solution in HCL 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLRH32Y
500 mL Plastic bottle	SPPLRH32X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Rhodium standard metal solution 10 ppm for ICP-MS solution in HCl 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLR11AY

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Rhodizonic acid sodium salt pure

packaging	product code
5 g Glass packaging	R/0300/44

C₆Na₂O₆
CAS: 523-21-7
MW: 214.04
Boiling pressure: 760 mmHg

Melting point: >300°C
HS-Nr: 29144900
EINECS: 208-340-3
Safety: S24/25

Ricinus oil See Castor oil, page 60



Ringer's solution pure, tablets

packaging	product code
100 Plastic jar	R/0350/79

HS-Nr: 38220000

Guaranteed analysis

IR Analysis Conform

Quarter strength for milk testing. One tablet dissolved in 500mL of glass distilled water yields quarter strength solution.

Rose Bengal C.I. 45440 pure

packaging	product code
25 g Glass packaging	R/0400/46

C₂₀H₂Cl₄I₄Na₂O₅
CAS: 632-69-9
MW: 101.65
Flash point: >92°C

HS-Nr: 32041200
EINECS: 211-183-3
Risk: R36
Safety: S26, S37/39

Xi

Guaranteed analysis

IR Analysis Conform

Rose water pure

packaging	product code
100 mL Glass bottle	R/0370/05

HS-Nr: 38220000

Risk: R20/22, R40

Rubidium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLRB22Y
500 mL Plastic bottle	SPPLRB22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Rubidium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLRB23Y
500 mL Plastic bottle	SPPLRB23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Rubidium chloride

SLR



packaging	product code
5 g Plastic jar	R/0500/44

RbCl
CAS: 7791-11-9
MW: 120.92
Density at 20°C: 2.8
Boiling point: 1390°C

Boiling pressure: 760 mmHg
Melting point: 718°C
HS-Nr: 28273985
INECS: 232-240-9
Safety: S24/25

Ruthenium standard metal solution 1000 ppm

for ICP solution in HCL 10%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLRU32Y
500 mL Plastic bottle	SPPLRU32X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Ruthenium trichloride

pure, powder

packaging	product code
1 g Glass tube	R/0600/43

RuCl₃
CAS: 10049-08-8
MW: 207.43
Density at 20°C: 3.11
Melting point: >500 °C
ADR/RID: 6.1/III

UN: 3288
HS-Nr: 28439090
EINECS: 233-167-5
Risk: R22, R34
Safety: S26, S28A, S37/39

Saccharin

extra pure

SLR



packaging	product code
100 g Plastic jar	S/0040/48

C₇H₅NO₃S
CAS: 81-07-2
MW: 183.19
Melting point: 226 to 230°C

HS-Nr: 29251100
EINECS: 201-321-0
Risk: R40
Safety: S36/37, S45

Assay: >98%

Guaranteed analysis

Residue after ignition <0.2% Arsenic (As) <2 ppm
Water <1% Lead (Pb) <10 ppm

Saccharin sodium dihydrate

extra pure

SLR



packaging	product code
100 g Plastic jar	S/0080/48

C₇H₄NNaO₃S·2H₂O
CAS: 6155-57-3
MW: 241.21

HS-Nr: 29251100
EINECS: 204-886-1
Risk: R22

Assay: >98%

Guaranteed analysis

Loss on drying 12 to 16% Lead (Pb) <10 ppm
Arsenic (As) <2 ppm

Safranine C.I 50240

pure

packaging	product code
25 g Glass packaging	S/0120/46

C₂₀H₁₉ClN₄
CAS: 477-73-6
MW: 350.84
Boiling pressure: 760 mmHg

HS-Nr: 32041300
Risk: R36/38
Safety: S24/25

Xi

Guaranteed analysis

IR Analysis Conform

Salicylaldehyde

extra pure

SLR



packaging	product code
100 mL Coated Glass Bottle	S/0200/PB05

C₇H₆O₂
CAS: 90-02-8
MW: 122.12
Density at 20°C: 1.164 to 1.167
Boiling point: 197°C
Boiling pressure: 760 mmHg

Melting point: -7°C
Flash point: 76°C
HS-Nr: 29142900
EINECS: 201-961-0
Risk: R21/22, R36/38
Safety: S26, S36/37/39

Xn

Salicylic acid

extra pure

NEW SPEC.

SLR



packaging	product code
500 g Plastic jar	S/0280/53
1 kg Plastic jar	S/0280/60

C₇H₆O₃
CAS: 69-72-7
MW: 138.12
Boiling point: 211°C
Boiling pressure: 20 mmHg
Melting point: 158 to 161°C

Flash point: 157°C
HS-Nr: 29182100
EINECS: 200-712-3
Risk: R22, R36/37/38, R41
Safety: S26, S37/39

Xn

Assay: >99.5%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <200 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <5 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <500 ppm
Potassium (K) <100 ppm	Zinc (Zn) <20 ppm

Samarium standard metal solution 1000 ppm

for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLSM22Y
500 mL Plastic bottle	SPPLSM22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sand Ottawa

extra pure, 20-30 mesh

SLR



packaging	product code
1 kg Plastic jar	S/0365/60
3 kg Plastic jar	S/0365/63

HS-Nr: 25051000

Sand low iron extra pure, 40-100 mesh

SLR

SpeciFied	packaging	product code
	1 kg Plastic jar	S/0360/60
	3 kg Plastic jar	S/0360/63

HS-Nr: 25051000

Sand extra pure, fine

SLR

SpeciFied	packaging	product code
	3 kg Plastic jar	S/0320/63
	5 kg Plastic jar	S/0320/65

HS-Nr: 25051000

Sand sea, acid washed extra pure

SLR

SpeciFied	packaging	product code
	1 kg Plastic Jar	S/0330/60
	5 kg Plastic Jar	S/0330/65

HS-Nr: 38220000

Sand silver pure

packaging	product code
3 kg Plastic jar	S/0370/63

HS-Nr: 25051000

Saponin extra pure

SLR

SpeciFied	packaging	product code
	100 g Plastic jar	S/0380/48

CAS: 8047-15-2
HS-Nr: 29389090
EINECS: 232-462-6

Risk: R36/37/38
Safety: S26, S37/39


Guaranteed analysis

IR Analysis Conform

Scandium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

SPeX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLSC22Y
	250 mL Plastic bottle	SPPLSC22T
	500 mL Plastic bottle	SPPLSC22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45


Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Scandium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

SPeX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPPLSC23Y
	500 mL Plastic bottle	SPPLSC23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45


Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Scandium standard metal solution 10 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

SPeX CertiPrep	packaging	product code
	100 mL Plastic bottle	SPCLSC21AY

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45


Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Schiff's reagent pure, for determination of aldehydes

packaging	product code
500 mL Coated Glass Bottle	J/7300/PB08
1 L Coated Glass Bottle	J/7300/PB15

HS-Nr: 38220000
Risk: R36/37/38
Safety: S26, S36


SDS See Sodium dodecyl sulfate, page 240



Sebacoyl chloride extra pure

SLR

SpeciFied	packaging	product code
	5 mL Glass bottle	S/0420/99

$C_{10}H_{16}Cl_2O_2$
CAS: 111-19-3
MW: 239.14
Density at 20°C: 1.12
Boiling point: 220°C
Boiling pressure: 75 mmHg
Melting point: -2.5°C

Flash point: >112°C
UN: 2922
HS-Nr: 29171990
EINECS: 203-843-4
Risk: R22, R34
Safety: S26, S36/37/39, S45



Conforming to the IR spectrum of reference.
This product can be brown.

Sebacoyl chloride solution extra pure, 5% solution in trichloroethylene

SLR

SpeciFied	packaging	product code
	100 mL Coated Glass Bottle	S/0423/PB05

ADR/RID: 6.1/III
UN: 1710
HS-Nr: 29032300

Risk: R40, R36/37/38, R52/53
Safety: S23, S36/37, S61



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Selenium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8061/05
500 mL Plastic bottle	J/8061/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S26, S23, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Selenium standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8306/08

UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S26, S23, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Selenium standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8305/05

UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S26, S23, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Selenium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLSE22Y
250 mL Plastic bottle	SPPLSE22T
500 mL Plastic bottle	SPPLSE22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Selenium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLSE23Y
500 mL Plastic bottle	SPPLSE23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Selenium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLSE22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Selenium extra pure

SLR

packaging	product code
25 g Plastic jar	S/0441/46

Se
CAS: 7782-49-2
MW: 78.96
Density at 20°C: 4.81
Boiling point: 685°C
Boiling pressure: 760 mmHg
Melting point: 217°C
ADR/RID: 6.1/III
UN: 3283
HS-Nr: 28049000
EINECS: 231-957-4
Risk: R23/25, R33, R53
Safety: S20/21, S28A, S45, S61



Assay: >99.5%

Guaranteed analysis

Copper (Cu)	<100 ppm	Tellurium (Te)	<0.05%
Iron (Fe)	<60 ppm	Total sulphur (S)	<100 ppm

Selenous acid pure

packaging	product code
100 g Plastic jar	S/0520/48

H₂SeO₃
CAS: 7783-00-8
MW: 128.97
Melting point: 70 °C
ADR/RID: 6.1/II
UN: 3283
HS-Nr: 28111900
EINECS: 231-974-7
Risk: R23/25, R33, R50/53
Safety: S20/21, S28A, S45, S60, S61



Semicarbazide hydrochloride extra pure

SLR

packaging	product code
100 g Plastic jar	S/0560/48
25 kg Plastic screw top Keg	S/0560/70

CH₃N₃O.HCl
CAS: 563-41-7
MW: 111.53
Melting point: 175-177°C
ADR/RID: 6.1/III
UN: 2811
HS-Nr: 29280000
EINECS: 209-247-0
Risk: R25, R36/38, R40
Safety: S22, S24/25



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<50 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<100 ppm	Hydrazine	<0.5%

Shellac orange pure, flake

packaging	product code
500 g Plastic jar	S/0600/53

CAS: 9000-59-3
HS-Nr: 38220000
EINECS: 232-549-9

Guaranteed analysis

IR Analysis Conform

Silica gel incorporating 12-13% calcium sulfate as a binder For Thin layer chromatography

packaging	product code
500 g Plastic jar	S/0790/53

SiO₂
HS-Nr: 28112200
Safety: S24/25

Silica gel 40 Angstrom pore size, 0.2-0.5mm For chromatography column

packaging	product code
500 g Plastic jar	S/0780/53
1 kg Plastic jar	S/0780/60

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 60 Angstrom pore size, 6-35 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0691/53
1 kg Plastic jar	S/0691/60
25 kg Plastic screw top Keg	S/0691/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 60 Angstrom pore size, 20-45 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0692/53
1 kg Plastic jar	S/0692/60
25 kg Plastic screw top Keg	S/0692/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 60 Angstrom pore size, 40-63 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0698/53
1 kg Plastic jar	S/0698/60
25 kg Plastic screw top Keg	S/0698/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 60 Angstrom pore size, 60-200 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0694/53
1 kg Plastic jar	S/0694/60
25 kg Plastic screw top Keg	S/0694/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 60 Angstrom pore size, 35-70 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0693/53
1 kg Plastic jar	S/0693/60
25 kg Plastic screw top Keg	S/0693/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 60 Angstrom pore size, 70-200 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0695/53
1 kg Plastic jar	S/0695/60
25 kg Plastic screw top Keg	S/0695/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel 100 Angstrom pore size, 35-70 micron For chromatography column, Davisil® Silicagel

packaging	product code
500 g Plastic jar	S/0696/53
1 kg Plastic jar	S/0696/60
25 kg Plastic screw top Keg	S/0696/70

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Safety: S24/25

Silica gel grade 923 Davisil® For chromatography column

packaging	product code
100 g Plastic jar	S/0697/48
250 g Plastic jar	S/0697/50
500 g Plastic jar	S/0697/53

SiO₂
CAS: 7631-86-9
MW: 60.08
Density at 20°C: 2.2
Boiling point: 2230°C
Boiling pressure: 760 mmHg
Melting point: 1710°C
HS-Nr: 38220000
Safety: S24/25

Silica precipitated pure

packaging	product code
500 g Plastic jar	S/0680/53

SiO₂
CAS: 7631-86-9
MW: 60.09
HS-Nr: 28112200
EINECS: 231-545-4
Safety: S24/25

Silica gel (2.5-6.0 mm) pure, Desiccating agent

packaging	product code
500 g Plastic jar	S/0720/53
1 kg Plastic jar	S/0720/60

SiO₂
CAS: 7631-86-9
MW: 60.08
HS-Nr: 28112200
Risk: R36/37
Safety: S26, S37/39



Silica gel (1.0-3.0 mm) pure, Desiccating agent

packaging	product code
500 g Plastic jar	S/0730/53
SiO ₂ CAS: 7631-86-9 MW: 60.08	HS-Nr: 28112200 Risk: R36/37 Safety: S26, S37/39



Silica gel (2.5-6.0 mm) self indicating (iron salt) pure, Desiccating agent

packaging	product code
500 g Plastic jar	S/0761/53
1 kg Plastic jar	S/0761/60
5 kg Plastic drum	S/0761/65
SiO ₂ CAS: 7631-86-9 MW: 60.08	HS-Nr: 38220000 Risk: R36/37 Safety: S26, S37/39



Contains iron salts.

Silicon standard metal solution 1000 ppm for AAS, solution aqueous

packaging	product code
100 mL Plastic bottle	J/8062/05
500 mL Plastic bottle	J/8062/08

Density at 20°C: 1
HS-Nr: 28391900

Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silicon standard metal solution 1000 ppm for ICP solution in H₂O/HF trace, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLSI92Y
250 mL Plastic bottle	SPPLSI92T
500 mL Plastic bottle	SPPLSI92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silicon standard metal solution 10 000 ppm for ICP solution in H₂O, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLSI9A3X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silicon standard metal solution 10 000 ppm for ICP solution in H₂O/HF trace, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLSI93Y
500 mL Plastic bottle	SPPLSI93X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silicone antifoaming agent extra pure, oil in water emulsion

SLR

packaging	product code
100 g Bidon	S/0820/48

HS-Nr: 39100000

Silicon tetrachloride extra pure

SLR

packaging	product code
500 mL Coated Glass Bottle	S/0844/PB08

SiCl ₄ CAS: 10026-04-7 MW: 169.9 Density at 20°C: 1.48 Boiling point: 58°C Boiling pressure: 760 mmHg Melting point: -70°C	ADR/RID: 8/II UN: 1818 HS-Nr: 28121090 EINECS: 233-054-0 Risk: R14, R36/37/38 Safety: S7/8, S26
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Assay: >97%

Silver standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8064/05
500 mL Plastic bottle	J/8064/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silver standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8310/08

UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

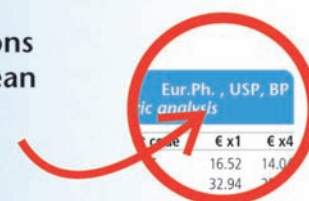
Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



The ready to use solutions comply with the European Pharmacopeia

Discover them
at page 266



Silver standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8309/05

UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silver standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLAG22Y
250 mL Plastic bottle	SPPLAG22T
500 mL Plastic bottle	SPPLAG22X

Density at 20°C: 1.02
Risk: R36/38
Safety: S26

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silver standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLAG23Y
500 mL Plastic bottle	SPPLAG23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silver standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLAG22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Silver metal powder extra pure

packaging	product code
10 g Glass tube	S/0960/45

Ag
CAS: 7440-22-4
MW: 107.87
Boiling point: 2212°C
Boiling pressure: 760 mmHg

Melting point: 961°C
HS-Nr: 71061000
EINECS: 231-131-3
Safety: S24/25

The prices apply to the money and derivatives vary with the price of the raw material.

Silver metal foil extra pure, 0.1 mm thick, approx 10 g

SLR

packaging	product code
10 g Leaf	S/0880/90

Ag
CAS: 7440-22-4
MW: 107.87
Boiling point: 2212°C
Boiling pressure: 760 mmHg

Melting point: 961°C
HS-Nr: 71069280
EINECS: 231-131-3
Safety: S24/25

The prices apply to the money and derivatives vary with the price of the raw material.

Silver metal wire 1.2 mm extra pure

SLR

packaging	product code
10 g Glass packaging	S/1010/45

Ag
CAS: 7440-22-4
MW: 107.87
Boiling point: 2212°C
Boiling pressure: 760 mmHg

Melting point: 961°C
HS-Nr: 71069220
EINECS: 231-131-3
Safety: S24/25

The prices apply to the money and derivatives vary with the price of the raw material.

Silver chloride extra pure

SLR

packaging	product code
25 g Glass packaging	S/1120/46

AgCl
CAS: 7783-90-6
MW: 143.32
Density at 20°C: 5.56
Boiling point: 1550°C

Boiling pressure: 760 mmHg
Melting point: 455°C
HS-Nr: 28432900
EINECS: 232-033-3
Safety: S24/25

Assay: >99%

Silver diethyldithiocarbamate extra pure

SLR

packaging	product code
5 g Glass Jar	S/1200/44

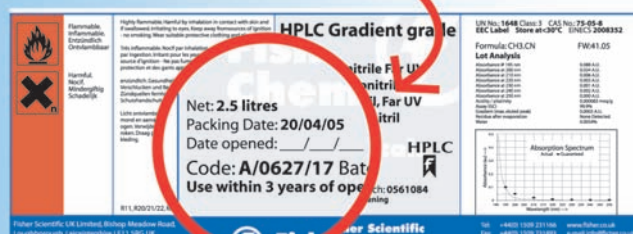
C₆H₁₀AgNS₂
CAS: 1470-61-7
MW: 256.14
Boiling pressure: 760 mmHg

Melting point: 172 to 175°C
HS-Nr: 29302000
EINECS: 216-003-7
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Use best before information on the label



Silver nitrate for analysis

Certified AR



packaging	product code
25 g Glass packaging	S/1280/46
100 g Glass packaging	S/1280/48
250 g Glass packaging	S/1280/50
500 g Glass packaging	S/1280/53
10 kg Plastic screw top Keg	S/1280/68

AgNO₃
CAS: 7761-88-8
MW: 169.87
Density at 20°C: 4.35
Boiling point: 444°C
Boiling pressure: 760 mmHg
Melting point: 212°C

ADR/RID: 5.1/II
UN: 1493
HS-Nr: 28432100
EINECS: 231-853-9
Risk: R8, R34, R50/53
Safety: S26, S45, S60, S61



Assay: >99.9%

Guaranteed analysis

Not precipitated by HCl	<0.01%	Potassium (K)	<20 ppm
Water-insoluble	<0.005%	Sodium (Na)	<20 ppm
Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.0002 %
Copper (Cu)	<2 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<1 ppm	Molybdenum (Mo)	<1 ppm
Cadmium (Cd)	<1 ppm	Nickel (Ni)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Silver nitrate extra pure

SLR



packaging	product code
25 g Glass packaging	S/1240/46
100 g Glass packaging	S/1240/48
500 g Glass packaging	S/1240/53

AgNO₃
CAS: 7761-88-8
MW: 169.87
Density at 20°C: 4.35
Boiling point: 444°C
Boiling pressure: 760 mmHg
Melting point: 212°C

ADR/RID: 5.1/II
UN: 1493
HS-Nr: 28432100
EINECS: 231-853-9
Risk: R8, R34, R50/53
Safety: S26, S45, S60, S61



Assay: >99.8%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.002%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<100 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<200 ppm	Zinc (Zn)	<50 ppm

Silver nitrate solution 1000 g/l For COD

packaging	product code
500 mL Coated Glass Bottle	J/7380/PB08

ADR/RID: 8/II
UN: 1760
HS-Nr: 28432100

Risk: R34
Safety: S26, S45



Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Silver nitrate solution 1M (1N)

Standard solution ready to use for volumetric analysis

packaging	product code
1 L Plastic bottle	J/7320/PB15
2.5 L Plastic bottle	J/7320/PB17

ADR/RID: 8/II
UN: 1760
HS-Nr: 28432100

Risk: R34, R51/53
Safety: S26, S36/37/39, S45, S61



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Silver nitrate solution 0.1M (0.1N)

NEW SPEC.

Eur.Ph., USP, BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7330/15
2.5 L Plastic bottle	J/7330/17
10 L Cubitainer	J/7330/24

HS-Nr: 28432100
Risk: R52/53
Safety: S61

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Silver nitrate solution 0.1M (0.1N)

NEW SPEC.

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/7330C/05
6 ampoule	J/7330C/90

ADR/RID: 8/II
UN: 1760
HS-Nr: 28432100

Risk: R34, R50/53
Safety: S26, S45, S60, S61



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Silver nitrate solution 0.05M (0.05N)

NEW SPEC.

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7340/15
2.5 L Plastic bottle	J/7340/17

HS-Nr: 28432100
Risk: R52/53
Safety: S61

Manufactured to a tolerance of $\pm 0.2\%$.
See the full range of Standard Volumetric solution page 266.

Silver nitrate solution 0.0282M (0.0282N)

NEW SPEC.

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
250 mL Glass bottle	J/7370/07
1 L Plastic bottle	J/7370/15
2.5 L Plastic bottle	J/7370/17

HS-Nr: 28432100
Risk: R52/53
Safety: S61

Manufactured to a tolerance of $\pm 0.3\%$.
See the full range of Standard Volumetric solution page 266.

Silver nitrate solution 0.025M (0.025N) NEW SPEC.

Standard solution ready to use, For volumetric analysis

packaging	product code
1 L Glass bottle	J/7310/15
2.5 L Plastic bottle	J/7310/17

ADR/RID: /II
HS-Nr: 28432100
Risk: R52/53
Safety: S61

Guaranteed analysis

Molarity 0.024 to 0.026 M

See the full range of Standard Volumetric solution page 266.

Manufactured to a tolerance of $\pm 0.1\%$

Silver nitrate solution 0.02M (0.02N) NEW SPEC.

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7350/15
2.5 L Plastic bottle	J/7350/17

HS-Nr: 28432100
Risk: R52/53
Safety: S61

Manufactured to a tolerance of $\pm 0.3\%$.

See the full range of Standard Volumetric solution page 266.

Silver oxide extra pure

SLR



packaging	product code
25 g Glass packaging	S/1320/46

Ag₂O
CAS: 20667-12-3
MW: 231.74
ADR/RID: 5.1(8)/II
UN: 3085

HS-Nr: 28432900
EINECS: 243-957-1
Risk: R8, R34
Safety: S17, S26, S36/37/39, S45



Silver sulfate for analysis

Certified AR



packaging	product code
25 g Glass packaging	S/1400/46
100 g Glass packaging	S/1400/48

Ag₂O₄S
CAS: 10294-26-5
MW: 311.79
Density at 20°C: 5.45
Boiling point: 1085°C
Boiling pressure: 760 mmHg

Melting point: 652°C
HS-Nr: 28432100
EINECS: 233-653-7
Risk: R36
Safety: S26, S39



Assay: >99%

Guaranteed analysis

Calcium (Ca) <20 ppm	Total Nitrogen (N) <20 ppm
Copper (Cu) <5 ppm	Zinc (Zn) <10 ppm
Iron (Fe) <5 ppm	Copper (Cu) <5 ppm
Lead (Pb) <5 ppm	Iron (Fe) <5 ppm
Magnesium (Mg) <20 ppm	Lead (Pb) <5 ppm
Potassium (K) <50 ppm	Total chloride (Cl) <0.001%
Sodium (Na) <50 ppm	Total nitrogen (N) <20 ppm
Total chloride (Cl) <0.001 %	

Typical analysis

Aluminium (Al) <5 ppm	Manganese (Mn) <5 ppm
Barium (Ba) <5 ppm	Molybdenum (Mo) <5 ppm
Cadmium (Cd) <5 ppm	Nickel (Ni) <5 ppm
Chromium (Cr) <5 ppm	Strontium (Sr) <5 ppm
CO <5 ppm	Titanium (Ti) <5 ppm
Lithium (Li) <5 ppm	Vanadium (V) <5 ppm

Lot analysis on the label.

Silver sulfate extra pure

SLR



packaging	product code
25 g Glass packaging	S/1360/46
100 g Glass packaging	S/1360/48

Ag₂SO₄
CAS: 10294-26-5
MW: 311.79
Density at 20°C: 5.45
Boiling point: 1085°C
Boiling pressure: 760 mmHg

Melting point: 652°C
HS-Nr: 28432900
EINECS: 233-653-7
Risk: R36
Safety: S26, S39



Assay: >98.5%

Guaranteed analysis

Calcium (Ca) <100 ppm	Potassium (K) <200 ppm
Copper (Cu) <20 ppm	Sodium (Na) <200 ppm
Iron (Fe) <20 ppm	Total chloride (Cl) <0.002%
Lead (Pb) <20 ppm	Total silicon (Si) <50 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <50 ppm

Silver sulfate solution 1%w/v (d = 1.84) in sulfuric acid For COD

packaging	product code
2.5 L Coated Glass Bottle	J/7410/PB17

Ag₂SO₄
ADR/RID: 8/II
UN: 1830

HS-Nr: 28432900
Risk: R35
Safety: S26, S30, S45



Assay: 4.99 to 5.01%

Guaranteed analysis

Dichromate demand (ml FeSO) <2mL

Silver sulfate solution 1%w/v (d = 1.84) in sulfuric acid For COD

packaging	product code
2.5 L Coated Glass Bottle	J/7400/PB17

ADR/RID: 8/II
UN: 1830
HS-Nr: 28432900

Risk: R35
Safety: S26, S30, S45



Assay: 0.9 to 1.1%

Guaranteed analysis

Dichromate demand (ml FeSO) <2 mL

Soap powder pure, hard

packaging	product code
500 g Plastic jar	S/1450/53

HS-Nr: 29161500

Soap solution Clarks' pure

packaging	product code
2.5 L Glass bottle	J/7490/17

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S25



Soap solution Wanklyn pure

packaging	product code
2.5 L Glass bottle	J/7500/17

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R10
Safety: S7, S16



Guaranteed analysis

Value between 0.95 to 1.05

Soda lime, granules
extra pure, 1.0-2.5mm not hygroscopic self indicating

SLR



packaging	product code
500 g Plastic jar	S/1700/53

ADR/RID: 8/III
UN: 1907
HS-Nr: 28151100

Risk: R34
Safety: S26, S37/39



Virage from green to brown.

Soda lime
extra pure, 1.0-2.5mm not hygroscopic granules

SLR



packaging	product code
500 g Plastic jar	S/1600/53

ADR/RID: 8/III
UN: 1907
HS-Nr: 38220000

Risk: R34
Safety: S26, S37/39


Soda lime
extra pure, 2.5-5mm not hygroscopic granules

SLR



packaging	product code
500 g Plastic jar	S/1560/53
500 g Plastic jar	S/1560/65

ADR/RID: 8/III
UN: 1907
HS-Nr: 38220000

Risk: R34
Safety: S26, S37/39


Sodium standard solution 1000 ppm (1 mg/ml)
for Ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4562/05

HS-Nr: 38220000
Safety: S24/25

Guaranteed analysis

Value between 0.995 to 1.005

Manufactured to a tolerance of $\pm 1\%$.

Sodium standard metal solution 1000 ppm
for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8065/05
500 mL Plastic bottle	J/8065/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 1000 ppm
for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8316/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 10 000 ppm
for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8315/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 31025090

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 1000 ppm
for ICP solution in HNO₃ 2%, NIST certified


packaging	product code
100 mL Plastic bottle	SPPLNA22Y
250 mL Plastic bottle	SPPLNA22T
500 mL Plastic bottle	SPPLNA22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 1000 ppm
for ICP solution in HCL 2%, NIST certified


packaging	product code
500 mL Plastic bottle	SPPLNA12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 10 000 ppm
for ICP solution in HNO₃ 5%, NIST certified


packaging	product code
100 mL Plastic bottle	SPPLNA23Y
500 mL Plastic bottle	SPPLNA23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 10 000 ppm
for ICP solution in HCL 5%, NIST certified


packaging	product code
500 mL Plastic bottle	SPPLNA13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLNA22Y



Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sodium extra pure, metal sticks in liquid paraffin

SLR



packaging	product code
100 g Plastic jar	S/1920/48

Na
CAS: 7440-23-5
MW: 23.99
Boiling point: 883°C
Boiling pressure: 760 mmHg
Melting point: 98°C
ADR/RID: 4.3/I
UN: 1428
HS-Nr: 28051100
EINECS: 231-132-9
Risk: R14/15, R34
Safety: S5A, S8, S43D, S45



Guaranteed analysis

Calcium (Ca)	<1000 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<10 ppm		

Sodium acetate anhydrous for analysis

Certified AR



packaging	product code
250 g Plastic Jar	S/2120/50
500 g Plastic Jar	S/2120/53
1 kg Plastic Jar	S/2120/60
25 kg Fibre Keg	S/2120/70

C₂H₃NaO₂
CAS: 127-09-3
MW: 82.04
Melting point: 324°C
Flash point: >250°C
HS-Nr: 29152900
EINECS: 204-823-8
Safety: S24/25

Assay: >99%

Guaranteed analysis

Acidity	<0.0005 meq/g	Potassium (K)	<50 ppm
Alkalinity	<0.001 meq/g	Total chloride (Cl)	<0.0005 %
Calcium (Ca)	<50 ppm	Total nitrogen (N)	<20 ppm
Carbonate (Na ₂ CO ₃)	<0.02 %	Total phosphorus (P)	<5 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<5 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

Sodium acetate anhydrous extra pure

SLR



packaging	product code
500 g Plastic Jar	S/2080/53
1 kg Plastic Jar	S/2080/60
5 kg Plastic Keg	S/2080/65

C₂H₃NaO₂
CAS: 127-09-3
MW: 82.04
Melting point: 324°C
Flash point: >250°C
HS-Nr: 29152900
EINECS: 204-823-8
Safety: S24/25

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<1000 ppm		

Sodium acetate trihydrate for HPLC

Certified



packaging	product code
250 g Plastic Jar	S/2046/50
1 kg Plastic Jar	S/2046/60

C₂H₃NaO₂·3H₂O
CAS: 6131-90-4
MW: 136.08
Melting point: 58°C
HS-Nr: 29152900
EINECS: 204-814-9
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (solution 5%) 25°C	7.5 to 9.2	Lead (Pb)	<5 ppm
Iron (Fe)	<3 ppm	Total chloride (Cl)	<0.0005%

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
254 nm <0.02 A.U. |

Lot analysis on the label.
Filtered to 0.2 µm.

Sodium acetate trihydrate HPLC for electrochemical detection

Certified



packaging	product code
250 g Plastic Jar	S/2052/50

C₂H₃NaO₂·3H₂O
CAS: 6131-90-4
MW: 136.08
Melting point: 58°C
HS-Nr: 29152900
EINECS: 204-814-9
Safety: S24/25

Assay: >99%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<5 ppm
pH (solution 5%) 25°C	7.5 to 9.2	Total chloride (Cl)	<0.0005%
Iron (Fe)	<3 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
254 nm <0.02 A.U. |

Tested by HPLC-EC to ensure low electrochemical response.
Detector - ESA Coulochem II
Mode-oxidative
Electrode- Graphite.
Lot analysis on the label.
Filtered to 0.2 µm.

Save money!
Order 4 bottles in a box



pH Buffers

NIST Certified Standard
Solution & Concentrate
A full range to discover on page 45



Sodium acetate trihydrate
for analysis, crystals

Certified AR



packaging	product code
500 g Plastic Jar	S/2040/53
1 kg Plastic Jar	S/2040/60
2.5 kg Plastic Jar	S/2040/62
5 kg Plastic Keg	S/2040/65

$C_2H_3NaO_2 \cdot 3H_2O$
CAS: 6131-90-4
MW: 136.08
Melting point: 58°C

HS-Nr: 29152900
EINECS: 204-814-9
Safety: S24/25

Assay: 99-101%

Guaranteed analysis

pH (aqueous solution 5%)	8 to 9	Potassium (K)	<50 ppm
Substances		Total chloride (Cl)	<0.0005 %
reducing $KMnO_4$	<0.005%	Total nitrogen (N)	<10 ppm
Calcium (Ca)	<10 ppm	Total phosphorus (P)	<5 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<10 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<5 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium acetate trihydrate
extra pure, crystals

SLR, Eur.Ph.,BP



packaging	product code
500 g Plastic Jar	S/2000/53
1 kg Plastic Jar	S/2000/60
2.5 kg Plastic Jar	S/2000/62
5 kg Plastic Keg	S/2000/65

$C_2H_3NaO_2 \cdot 3H_2O$
CAS: 6131-90-4
MW: 136.08
Melting point: 58°C

HS-Nr: 29152900
EINECS: 204-814-9
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<200 ppm		

Sodium alginate
extra pure

SLR



packaging	product code
500 g Plastic Jar	S/2160/53

CAS: 9005-38-3
HS-Nr: 39131000
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Sodium aluminate
Technical

packaging	product code
1 kg Plastic jar	S/2200/60

CAS: 1302-42-7
ADR/RID: 8/III
UN: 1759

HS-Nr: 38220000
EINECS: 215-100-1
Risk: R36/37/38

Sodium arsenate hydrate
for analysis

Certified AR



packaging	product code
250 g Plastic jar	S/2272/50

$Na_2HAsO_4 \cdot 7H_2O$
CAS: 10048-95-0
MW: 312.01
ADR/RID: 6.1/II

UN: 1685
HS-Nr: 28429080
Risk: R45, R23/25, R50/5
Safety: S53, S45, S60, S61



Assay: 99 to 102%

Guaranteed analysis

pH (aqueous solution 5%)	8.5 to 9	Potassium (K)	<100 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<5 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<100 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<20 ppm	Arsenite	<0.002%

Lot analysis on the label.

Sodium arsenite
extra pure

SLR



packaging	product code
100 g Plastic jar	S/2320/48

$NaAsO_2$
CAS: 7784-46-5
MW: 129.91
Density at 20°C: 1.87
Melting point: 615°C
ADR/RID: 6.1/II

UN: 2027
HS-Nr: 28429080
EINECS: 232-070-5
Risk: R23/25, R50/53
Safety: S20/21, S28, S45, S60, S61



Assay: >98%

Guaranteed analysis

Sulfate (SO_4)	<0.1%	Total chloride (Cl)	<0.04%
--------------------	-------	---------------------	--------

Sodium arsenite solution 0.05M (0.1N) **NEW SPEC.**
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7510/PB15
2.5 L Plastic bottle	J/7510/PB17

ADR/RID: 6.1/III
UN: 1686
HS-Nr: 28429080

Risk: R23/25
Safety: S20/21, S28, S45



Guaranteed analysis

Value between 0.998 to 1.002

Manufactured to a tolerance of $\pm 0.2\%$.

See the full range of Standard Volumetric solution page 266.

Sodium azide
for analysis

Certified AR



packaging	product code
100 g Plastic jar	S/2380/48
500 g Plastic jar	S/2380/53

NaN_3
CAS: 26628-22-8
MW: 65.01
Density at 20°C: 1.85
Boiling point: 300°C
Boiling pressure: 760 mmHg

Melting point: 275 °C
ADR/RID: 6.1/II
UN: 1687
HS-Nr: 28500050
Risk: R28, R32, R50/53
Safety: S28A, S45, S60, S61



Assay: >99.5%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001 %
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Sodium azide extra pure

SLR

SpeciFied	packaging	product code
	100 g Plastic jar	S/2360/48
	500 g Plastic jar	S/2360/53

NaN ₃	Melting point: 275 °C	
CAS: 26628-22-8	ADR/RID: 6.1/II	
MW: 65.01	UN: 1687	
Density at 20°C: 1.85	HS-Nr: 28500050	
Boiling point: 300°C	Risk: R28, R32, R50/53	
Boiling pressure: 760 mmHg	Safety: S28A, S45, S60, S61	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Sodium benzoate for analysis

Certified AR

AR	packaging	product code
	500 g Plastic Jar	S/2441/53

C ₇ H ₅ NaO ₂	HS-Nr: 29163100
CAS: 532-32-1	EINECS: 208-534-8
MW: 144.11	Safety: S24/25
Melting point: >300°C	

Assay: >99.5%

Guaranteed analysis

Loss on drying	<1%	Manganese (Mn)	<2 ppm
pH (aqueous solution 5%)	7 to 8	Molybdenum (Mo)	<2 ppm
Aluminium (Al)	<2 ppm	Nickel (Ni)	<2 ppm
Barium (Ba)	<2 ppm	Potassium (K)	<500 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Calcium (Ca)	<100 ppm	Strontium (Sr)	<2 ppm
Chlorine (Cl) compounds	<0.01%	Titanium (Ti)	<2 ppm
Chromium (Cr)	<2 ppm	Total chloride (Cl)	<0.005%
Cobalt (Co)	<2 ppm	Total phosphorus (P)	<50 ppm
Copper (Cu)	<1 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<1 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<1 ppm	Vanadium (V)	<2 ppm
Lithium (Li)	<2 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<50 ppm		

Lot analysis on the label.

Sodium benzoate extra pure

SLR, Eur.Ph., BP

SpeciFied	packaging	product code
	500 g Plastic Jar	S/2440/53
	1 kg Plastic Jar	S/2440/60

C ₇ H ₅ NaO ₂	HS-Nr: 29163100
CAS: 532-32-1	EINECS: 208-534-8
MW: 144.11	Safety: S24/25
Melting point: >300°C	

Assay: >99%

Guaranteed analysis

Loss on drying	<2%	Potassium (K)	<1000 ppm
Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<100 ppm

Sodium bichromate

See Sodium dichromate dihydrate, page 239



Sodium bismuthate extra pure

SLR

SpeciFied	packaging	product code
	100 g Plastic Jar	S/2480/48

NaBiO ₃	HS-Nr: 28419090	
CAS: 12232-99-4	EINECS: 235-455-6	
MW: 279.96	Risk: R22	

Sodium borate decahydrate

See di-Sodium tetraborate decahydrate, page 254



Sodium borohydride extra pure

SLR

SpeciFied	packaging	product code
	10 g Plastic jar	S/2560/45
	25 g Plastic jar	S/2560/46
	100 g Plastic jar	S/2560/48

NaBH ₄	UN: 1426	
CAS: 16940-66-2	HS-Nr: 28500010	
MW: 37.83	EINECS: 241-004-4	
Density at 20°C: 1.07	Risk: R15, R23/24/25, R34	
Melting point: 400°C	Safety: S22, S26, S36/37/39, S43A, S45	
Flash point: 69°C		
ADR/RID: 4.3/I		

Sodium bromate extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	S/2600/53

NaBrO ₃	UN: 1494	
CAS: 7789-38-0	HS-Nr: 28299090	
MW: 150.9	EINECS: 232-160-4	
Density at 20°C: 3.33	Risk: R9, R36/37	
Melting point: 381 °C	Safety: S17, S26, S37/39	
ADR/RID: 5.1/II		

Assay: >95%

Sodium bromide extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	S/2640/53
	3 kg Plastic jar	S/2640/63

NaBr	Melting point: 755°C
CAS: 7647-15-6	HS-Nr: 28275100
MW: 102.89	EINECS: 231-599-9
Boiling point: 1390°C	Safety: S24/25
Boiling pressure: 760 mmHg	

Assay: >99%

Guaranteed analysis

Alkalinity	<0.002 meq/g	Lead (Pb)	<5 ppm
Loss on drying	<3%	Sulfate (SO ₄)	<0.02%
Iron (Fe)	<10 ppm	Total chloride (Cl)	<0.4%

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Sodium cacodylate trihydrate
extra pure

SLR



packaging	product code
100 g Plastic jar	S/2660/48

Na(CH₃)₂AsO₂·3H₂O
CAS: 124-65-2
MW: 214.03
ADR/RID: 6.1/II
UN: 1688

HS-Nr: 29310000
EINECS: 204-708-2
Risk: R23/25, R40
Safety: S20/21, S28, S45



Assay: >97%

Guaranteed analysis

Acidity	<0.07 meq/g	Sulfate (SO ₄)	<0.3%
Alkalinity	<0.025 meq/g	Total chloride (Cl)	<0.1%

Sodium carbonate anhydrous
for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/2920/53
1 kg Plastic jar	S/2920/60
2.5 kg Plastic jar	S/2920/62
5 kg Plastic drum	S/2920/65

CNa₂O₃
CAS: 497-19-8
MW: 105.99
Density at 20°C: 2.53
Boiling point: 1600°C
Boiling pressure: 760 mmHg

Melting point: 851°C
HS-Nr: 28362000
EINECS: 207-838-8
Risk: R36
Safety: S22, S26



Assay: >99.9%

Guaranteed analysis

Loss on drying 300°C	<1%	Potassium (K)	<100 ppm
Water-insoluble	<0.005%	Total chloride (Cl)	<0.002 %
Calcium (Ca)	<100 ppm	Total nitrogen (N)	<10 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium carbonate anhydrous
extra pure

SLR



packaging	product code
500 g Plastic jar	S/2880/53
1 kg Plastic jar	S/2880/60
2.5 kg Plastic jar	S/2880/62
5 kg Plastic drum	S/2880/65
25 kg Fibre Keg	S/2880/70

Na₂CO₃
CAS: 497-19-8
MW: 105.99
Density at 20°C: 2.53
Boiling point: 1600°C
Boiling pressure: 760 mmHg

Melting point: 851°C
HS-Nr: 28362000
EINECS: 207-838-8
Risk: R36
Safety: S22, S26



Assay: >99.5%

Guaranteed analysis

Loss on drying	<2%	Potassium (K)	<200 ppm
Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm

Sodium carbonate anhydrous
Technical

packaging	product code
2.5 kg Plastic jar	S/2840/62
25 kg Fibre Keg	S/2840/70

Na₂CO₃
CAS: 497-19-8
MW: 105.99
Density at 20°C: 2.53
Boiling point: 1600°C
Boiling pressure: 760 mmHg

Melting point: 851°C
HS-Nr: 28362000
EINECS: 207-838-8
Risk: R36
Safety: S22, S26

Sodium carbonate decahydrate
for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/2760/53
1 kg Plastic jar	S/2760/60
5 kg Plastic drum	S/2760/65

Na₂CO₃·10H₂O
CAS: 6132-02-1
MW: 286.14
Density at 20°C: 1.46
Melting point: 34°C

HS-Nr: 28362000
EINECS: 207-838-8
Risk: R36
Safety: S22, S26



Assay: >99%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Total chloride (Cl)	<0.0015 %
Calcium (Ca)	<20 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<2 ppm	Total phosphorus (P)	<5 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<2 ppm	Total sulphur (S)	<20 ppm
Potassium (K)	<50 ppm		

Typical analysis

Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Sodium carbonate decahydrate
extra pure

SLR



packaging	product code
1 kg Plastic jar	S/2720/60
2.5 kg Plastic jar	S/2720/62
5 kg Plastic drum	S/2720/65

Na₂CO₃·10H₂O
CAS: 6132-02-1
MW: 286.14
Density at 20°C: 1.46
Melting point: 34°C

HS-Nr: 28362000
EINECS: 207-838-8
Risk: R36
Safety: S22, S26



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<20 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<100 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<200 ppm		

Sodium carbonate solution 0.05M (0.1N) **NEW SPEC.**
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7580/PB15
2.5 L Plastic bottle	J/7580/17

HS-Nr: 28362000

Manufactured to a tolerance of ± 0.1%.
See the full range of Standard Volumetric solution page 266.

Sodium carbonate solution 0.05M (0.1N) NEW SPEC.

NIST Standard Concentrate, For Volumetric analysis

Solutrate	packaging	product code
	1 ampoule	J/7580C/05
	6 ampoule	J/7580C/90

HS-Nr: 38220000

Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Sodium carbonate solution 0.5M (1N) NEW SPEC.

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7520/PB15
2.5 L Plastic bottle	J/7520/17

HS-Nr: 28362000

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Sodium chlorate Certified AR

for analysis

AR	packaging	product code
	250 g Plastic jar	S/3045/50

NaClO3
 CAS: 7775-09-9
 MW: 106.44
 Density at 20°C: 2.49
 Melting point: 248 to 261°C
 ADR/RID: 5.1/II

UN: 1495
 HS-Nr: 28291100
 EINECS: 231-887-4
 Risk: R9, R22, R51/53
 Safety: S13, S17, S46, S61



Assay: >99%

Guaranteed analysis

Aluminium (Al) <5 ppm	Nickel (Ni) <5 ppm
Barium (Ba) <5 ppm	Potassium (K) <100 ppm
Cadmium (Cd) <5 ppm	Silver (Ag) <5 ppm
Calcium (Ca) <20 ppm	Strontium (Sr) <5 ppm
Chromium (Cr) <5 ppm	Titanium (Ti) <5 ppm
Cobalt (Co) <5 ppm	Total chloride (Cl) <0.01%
Copper (Cu) <5 ppm	Total nitrogen (N) <100 ppm
Iron (Fe) <5 ppm	Total phosphorus (P) <50 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <50 ppm
Lithium (Li) <5 ppm	Total sulphur (S) <50 ppm
Magnesium (Mg) <10 ppm	Vanadium (V) <5 ppm
Manganese (Mn) <5 ppm	Zinc (Zn) <20 ppm
Molybdenum (Mo) <5 ppm	

Sodium chlorate SLR

extra pure

Specified	packaging	product code
	500 g Plastic jar	S/3040/53
	1 kg Plastic jar	S/3040/60

NaClO3
 CAS: 7775-09-9
 MW: 106.44
 Density at 20°C: 2.49
 Melting point: 248 to 261°C
 ADR/RID: 5.1/II

UN: 1495
 HS-Nr: 28291100
 EINECS: 231-887-4
 Risk: R9, R22, R51/53
 Safety: S13, S17, S46, S61



Assay: >98%

Guaranteed analysis

Calcium (Ca) <200 ppm	Total chloride (Cl) <0.05%
Copper (Cu) <50 ppm	Total phosphorus (P) <200 ppm
Iron (Fe) <50 ppm	Total silicon (Si) <200 ppm
Lead (Pb) <50 ppm	Total sulphur (S) <500 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <200 ppm

Sodium chlorate

Technical

packaging	product code
1 kg Plastic jar	S/3000/60
3 kg Plastic jar	S/3000/63

NaClO3
 CAS: 7775-09-9
 MW: 106.44
 Density at 20°C: 2.49
 Melting point: 248 to 261°C
 ADR/RID: 5.1/II

UN: 1495
 HS-Nr: 28291100
 EINECS: 231-887-4
 Risk: R9, R22, R51/53
 Safety: S13, S17, S46, S61



Sodium chloride

for HPLC

Certified



packaging	product code
500 g Plastic jar	S/3165/53

NaCl
 CAS: 7647-14-5
 MW: 58.44
 Boiling point: 1461°C
 Boiling pressure: 760 mmHg

Melting point: 801°C
 HS-Nr: 25010091
 EINECS: 231-598-3
 Safety: S24/25

Assay: 0 to 150%

Guaranteed analysis

Bromide and iodide <0.005%	Potassium (K) <50 ppm
Iron (Fe) <1 ppm	Total phosphorus (P) <2 ppm
Lead (Pb) <2 ppm	Total sulphur (S) <10 ppm

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

254 nm <0.02 A.U.

Lot analysis on the label.

Filtered to 0.2 μ m.

Sodium chloride

for analysis

Certified AR, Eur.Ph.



packaging	product code
500 g Plastic jar	S/3160/53
1 kg Plastic jar	S/3160/60
3 kg Plastic jar	S/3160/63
5 kg Plastic jar	S/3160/65
10 kg Plastic screw top Keg	S/3160/68
25 kg Plastic screw top Keg	S/3160/70

NaCl
 CAS: 7647-14-5
 MW: 58.44
 Boiling point: 1461°C
 Boiling pressure: 760 mmHg

Melting point: 801°C
 HS-Nr: 38220000
 EINECS: 231-598-3
 Safety: S24/25

Assay: >99.9%

Guaranteed analysis

Water-insoluble <0.005%	Magnesium (Mg) <5 ppm
Bromide and iodide <0.005 %	Potassium (K) <100 ppm
Calcium (Ca) <20 ppm	Total nitrogen (N) <5 ppm
Copper (Cu) <2 ppm	Total phosphorus (P) <2 ppm
Iron (Fe) <2 ppm	Total silicon (Si) <20 ppm
Iron cyanide <0.0001 %	Total sulphur (S) <20 ppm
Lead (Pb) <2 ppm	Zinc (Zn) <5 ppm

Typical analysis

Aluminium (Al) <2 ppm	Manganese (Mn) <1 ppm
Arsenic (As) <2 ppm	Molybdenum (Mo) <1 ppm
Barium (Ba) <1 ppm	Nickel (Ni) <1 ppm
Cadmium (Cd) <1 ppm	Silver (Ag) <1 ppm
Chromium (Cr) <1 ppm	Strontium (Sr) <1 ppm
Cobalt (Co) <1 ppm	Titanium (Ti) <1 ppm
Lithium (Li) <1 ppm	Vanadium (V) <1 ppm

Lot analysis on the label.

Sodium chloride
extra pure

SLR



packaging	product code
500 g Plastic jar	S/3120/53
1 kg Plastic jar	S/3120/60
3 kg Plastic jar	S/3120/63
5 kg Plastic jar	S/3120/65
25 kg Plastic screw top Keg	S/3120/70

NaCl
CAS: 7647-14-5
MW: 58.44
Boiling point: 1461°C
Boiling pressure: 760 mmHg

Melting point: 801°C
HS-Nr: 38220000
EINECS: 231-598-3
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Bromide (Br)	<0.005%	Potassium (K)	<200 ppm
Calcium (Ca)	<100 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<10 ppm	Total silicon (Si)	<100 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<20 ppm		

Sodium chloride (rock salt)
Technical

packaging	product code
3 kg Plastic jar	S/3100/63

NaCl
CAS: 7647-14-5
MW: 58.44
Boiling point: 1461°C
Boiling pressure: 760 mmHg

Melting point: 801°C
HS-Nr: 25010099
EINECS: 231-598-3
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Sodium chloride
Technical

packaging	product code
3 kg Plastic jar	S/3105/63
25 kg Plastic drum	S/3105/70

NaCl
CAS: 7647-14-5
MW: 58.44
Boiling point: 1461°C
Boiling pressure: 760 mmHg

Melting point: 801°C
HS-Nr: 25010099
EINECS: 231-598-3
Safety: S24/25

Sodium chloride solution 0.1M (0.1N)
NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/7590C/05
6 ampoule	J/7590C/90

HS-Nr: 38220000

Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Sodium chloroacetate
extra pure

SLR



packaging	product code
250 g Plastic Jar	S/3200/50

C₂H₂ClNaO₂
CAS: 3926-62-3
MW: 116.48
Melting point: 0.1°C
ADR/RID: 6.1/III

UN: 2659
HS-Nr: 29154000
EINECS: 223-498-3
Risk: R25, R38, R50
Safety: S22, S37, S45, S61

Guaranteed analysis

IR Analysis Conform

Sodium chromate anhydrous
extra pure

SLR



packaging	product code
500 g Plastic jar	S/3240/53

Na₂CrO₄
CAS: 7775-11-3
MW: 161.97
Melting point: 792°C
ADR/RID: 6.1/II
UN: 3288

HS-Nr: 28415000
EINECS: 231-889-5
Risk: R49, R46, R36/37/38, R43, R50/53
Safety: S53, S45, S60



Guaranteed analysis

IR Analysis Conform

tri-Sodium citrate dihydrate
HPLC for electrochemical detection

Certified



packaging	product code
500 g Plastic Jar	S/3380/53

C₆H₅Na₃O₇·2H₂O
CAS: 6132-04-3
MW: 294.09
Density at 20°C: 1.76

Melting point: >300°C
HS-Nr: 29181500
EINECS: 200-675-3
Safety: S24/25

Assay: 99.5 to 100.5%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<5 ppm
pH (solution 5%) 25°C	8 to 9	Total chloride (Cl)	<0.005%
Iron (Fe)	<5 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.1 A.U. 270 nm <0.05 A.U.

Purified then tested by HPLC-EC to show low electrochemical response.

Detector - ESA Coulochem II

Mode-oxxydative

Electrode- Graphite.

Lot analysis on the label.

Filtered to 0.2 µm.

tri-Sodium citrate dihydrate
for analysis

Certified AR, Eur.Ph., BP, USP



packaging	product code
500 g Plastic Jar	S/3320/53
1 kg Plastic Jar	S/3320/60
5 kg Plastic Keg	S/3320/65
25 kg Fibre Keg	S/3320/70

C₆H₅Na₃O₇·2H₂O
CAS: 6132-04-3
MW: 294.09
Density at 20°C: 1.76

Melting point: >300°C
HS-Nr: 29181500
EINECS: 200-675-3
Safety: S24/25

Assay: 99.5 to 100.5%

Guaranteed analysis

Carbonisable substance (standard Ph.Eur USP)	Conform	Potassium (K)	<100 ppm
pH (aqueous solution 5%)	8 to 9	Total chloride (Cl)	<0.005 %
Calcium (Ca)	<20 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

tri-Sodium citrate dihydrate extra pure

SLR

Specified	packaging	product code
	500 g Plastic jar	S/3280/53
	1 kg Plastic jar	S/3280/60
	5 kg Plastic drum	S/3280/65

$C_6H_5Na_3O_7 \cdot 2H_2O$
 CAS: 6132-04-3
 MW: 294.09
 Density at 20°C: 1.76
 Melting point: >300°C
 HS-Nr: 29181500
 EINECS: 200-675-3
 Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	8 to 9	Potassium (K)	<200 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm

Sodium cyanide extra pure

SLR

Specified	packaging	product code
	500 g Plastic jar	S/3480/53

$NaCN$
 CAS: 143-33-9
 MW: 49.01
 Boiling point: 1497°C
 Boiling pressure: 760 mmHg
 Melting point: 562°C
 ADR/RID: 6.1/I
 UN: 1689
 HS-Nr: 28371100
 EINECS: 205-599-4
 Risk: R26/27/28, R32, R50/53
 Safety: S7, S28A, S29, S45, S60, S61

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.05%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<200 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<1000 ppm		

Sodium dichromate dihydrate for analysis

Certified AR

AR	packaging	product code
	500 g Plastic jar	S/3561/53

$Na_2Cr_2O_7 \cdot 2H_2O$
 CAS: 7789-12-0
 MW: 298
 Boiling point: 400°C
 Boiling pressure: 760 mmHg
 Melting point: 357°C
 ADR/RID: 5.1(6.1)/II
 UN: 3087
 HS-Nr: 28413000
 EINECS: 234-190-3
 Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53
 Safety: S53, S45, S60, S61

Assay: 99.5 to 101%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Magnesium (Mg)	<20 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Potassium (K)	<200 ppm
Calcium (Ca)	<20 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Total chloride (Cl)	<0.002%
Copper (Cu)	<10 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<20 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm	Zinc (Zn)	<20 ppm

Lot analysis on the label.

Sodium dichromate dihydrate extra pure

SLR

Specified	packaging	product code
	500 g Plastic jar	S/3560/53
	1 kg Plastic jar	S/3560/60
	3 kg Plastic jar	S/3560/63

$Na_2Cr_2O_7 \cdot 2H_2O$
 CAS: 7789-12-0
 MW: 298
 Boiling point: 400°C
 Boiling pressure: 760 mmHg
 Melting point: 357°C
 ADR/RID: 5.1(6.1)/II
 UN: 3087
 HS-Nr: 28413000
 EINECS: 234-190-3
 Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53
 Safety: S53, S45, S60, S61

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<1000 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<100 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<100 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<100 ppm

Sodium dichromate dihydrate Technical

packaging	product code
1 kg Plastic jar	S/3520/60
3 kg Plastic jar	S/3520/63

$Na_2Cr_2O_7 \cdot 2H_2O$
 CAS: 7789-12-0
 MW: 298
 Boiling point: 400°C
 Boiling pressure: 760 mmHg
 Melting point: 357°C
 ADR/RID: 5.1(6.1)/II
 UN: 3087
 HS-Nr: 28413000
 EINECS: 234-190-3
 Risk: R45, R46, R60, R61, R8, R21, R25, R26, R34, R42/43, R48/23, R50/53
 Safety: S53, S45, S60, S61

Assay: >98%

Sodium diethyldithiocarbamate trihydrate extra pure

SLR

Specified	packaging	product code
	25 g Plastic Jar	S/3640/46
	100 g Plastic Jar	S/3640/48

$C_5H_{10}NNaS_2 \cdot 3H_2O$
 CAS: 20624-25-3
 MW: 225.31
 Boiling pressure: 760 mmHg
 Melting point: 95 to 98.5°C
 HS-Nr: 29302000
 EINECS: 205-710-6
 Risk: R22

Assay: >98.5%

Guaranteed analysis

Cooper absorption	>12000
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Sodium dihydrogen orthophosphate dihydrate HPLC for electrochemical detection

Certified

HPLC electrochemical	packaging	product code
	500 g Plastic jar	S/3770/53

$NaH_2PO_4 \cdot 2H_2O$
 CAS: 13472-35-0
 MW: 156.01
 Melting point: 60°C
 HS-Nr: 38220000
 EINECS: 231-449-2
 Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<2 ppm
pH (solution 5%) 25°C	4.3 to 4.5	Total chloride (Cl)	<0.001%
Iron (Fe)	<10 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

254 nm <0.05 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

Fisher Chemical packaging

A convenient and complete range
for a cleaner and safer world!


Sodium dihydrogen orthophosphate 0.25M solution **Certified**
HPLC for gradient analysis

packaging	product code
500 mL Coated Glass Bottle	J/7600/PB08

HS-Nr: 28352200

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Drift in the baseline <40 mA.U. Gradient (max eluted peak) <0.005 mA.U.

Conditions:

Column: C18 Reverse Phase

Flow Rate: 3ml/min

Wavelength: 254nm

Solvent A: Water + 10% Buffer

Solvent B: Acetonitrile + 10% Buffer

Gradient: 10 min. At 5% solvent B followed by a linear gradient to 95% solvent B over 15min.

Sodium phosphate buffers should be adjusted to the appropriate pH with 1M Orthophosphoric acid

Sodium dihydrogen orthophosphate dihydrate **Certified AR, Eur.Ph., BP**
for analysis

packaging	product code
500 g Plastic jar	S/3760/53
1 kg Plastic jar	S/3760/60
5 kg Plastic drum	S/3760/65
25 kg Plastic drum	S/3760/70

NaH₂PO₄·2H₂O

CAS: 13472-35-0

MW: 156.01

Melting point: 60°C

HS-Nr: 28352200

EINECS: 231-449-2

Safety: S24/25

Assay: 99 to 101%**Guaranteed analysis**

pH (aqueous solution 5%)	4.3 to 4.5	Potassium (K)	<100 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.001 %
Copper (Cu)	<2 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<1 ppm
Barium (Ba)	<1 ppm	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Strontium (Sr)	<0.001 %
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

Sodium dihydrogen orthophosphate dihydrate **SLR**
extra pure, crystals

packaging	product code
500 g Plastic jar	S/3720/53
1 kg Plastic jar	S/3720/60
5 kg Plastic drum	S/3720/65

NaH₂PO₄·2H₂O

CAS: 13472-35-0

MW: 156.01

Melting point: 60°C

HS-Nr: 28352200

EINECS: 231-449-2

Safety: S24/25

Assay: >98%**Guaranteed analysis**

Calcium (Ca)	<100 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<50 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<10 ppm

Sodium diphenylamine-4-sulfonate
pure

packaging	product code
5 g Glass Jar	S/3780/44

C₁₂H₁₀NNaO₃S

CAS: 6152-67-6

MW: 271.26

HS-Nr: 38220000

EINECS: 228-165-6

Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Sodium dithionite
extra pure

SLR



packaging	product code
500 g Plastic jar	S/3800/53
3 kg Plastic jar	S/3800/63

Na₂S₂O₄

CAS: 7775-14-6

MW: 174.1

Boiling pressure: 760 mmHg

Melting point: >300 °C

ADR/RID: 4.2/II

UN: 1384

HS-Nr: 28311000

EINECS: 231-890-0

Risk: R7, R22, R31

Safety: S7/8, S26, S28A, S43E

Assay: >85%Sodium dodecyl sulfate
Technical

packaging	product code
500 g Plastic Jar	S/5200/53

C₁₂H₂₅NaO₄S

CAS: 151-21-3

MW: 288.38

Melting point: 206°C

Flash point: >100°C

ADR/RID: 4.1/III

UN: 1325

HS-Nr: 38220000

EINECS: 205-788-1

Risk: R11, R22, R36/38

Safety: S26, S36/37/39

Assay (GC): >97.5%

Sodium sulfate alkyl contains mainly sodium lauryl sulfate.

Sodium fluoride
for analysis

Certified AR



packaging	product code
250 g Plastic jar	S/3920/50
500 g Plastic jar	S/3920/53
1 kg Plastic jar	S/3920/60
25 kg Plastic screw top Keg	S/3920/70

NaF

CAS: 7681-49-4

MW: 41.99

Boiling point: 1700°C

Boiling pressure: 760 mmHg

Melting point: 993°C

ADR/RID: 6.1/III

UN: 1690

HS-Nr: 28261910

EINECS: 231-667-8

Risk: R25, R32, R36/38

Safety: S22, S36, S45

Assay: >99%**Guaranteed analysis**

Acidity	<0.05 meq/g	Magnesium (Mg)	<20 ppm
Alkalinity	<0.01 meq/g	Potassium (K)	<200 ppm
Loss on drying	<0.2%	Total chloride (Cl)	<0.002 %
Calcium (Ca)	<50 ppm	Total phosphorus (P)	<50 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<200 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm		

Lot analysis on the label.

Sodium fluoride extra pure

SLR

Specified

packaging	product code
250 g Plastic jar	S/3880/50
500 g Plastic jar	S/3880/53

NaF
CAS: 7681-49-4
MW: 41.99
Boiling point: 1700°C
Boiling pressure: 760 mmHg
Melting point: 993°C

ADR/RID: 6.1/III
UN: 1690
HS-Nr: 28261910
EINECS: 231-667-8
Risk: R25, R32, R36/38
Safety: S22, S36, S45



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<1000 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<500 ppm		

Sodium fluorosilicate Technical

packaging	product code
1 kg Plastic jar	S/4000/60

approx. Na₂SiF₆
CAS: 16893-85-9
ADR/RID: 6.1/III
UN: 2674

HS-Nr: 28262000
EINECS: 240-934-8
Risk: R23/24/25
Safety: S26, S45



Sodium formaldehydesulfoxylate dihydrate pure

packaging	product code
500 g Plastic jar	S/4040/53
25 kg Fibre Keg	S/4040/70

CH₃NaO₃S.2H₂O
CAS: 6035-47-8
MW: 154.12

Melting point: 63 to 64°C
HS-Nr: 28311000
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Sodium formate for HPLC

Certified

HPLC

packaging	product code
250 g Plastic jar	S/4086/50

CHNaO₂
CAS: 141-53-7
MW: 68.01
Boiling point: 360°C
Boiling pressure: 760 mmHg

Melting point: 258 to 261°C
HS-Nr: 29171990
EINECS: 205-488-0
Risk: R36/37/38
Safety: S26, S37/39



Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.02 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia

Read more on page 266



Sodium formate for analysis

Certified AR

AR

packaging	product code
500 g Plastic jar	S/4082/53

CHNaO₂
CAS: 141-53-7
MW: 68.01
Boiling point: 360°C
Boiling pressure: 760 mmHg

Melting point: 258 to 261°C
HS-Nr: 29171990
EINECS: 205-488-0
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<1 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Potassium (K)	<100 ppm
Calcium (Ca)	<50 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Titanium (Ti)	<1 ppm
Cobalt (Co)	<1 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<10 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<10 ppm	Vanadium (V)	<1 ppm
Lithium (Li)	<1 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<5 ppm		

Lot analysis on the label.

Sodium formate extra pure

SLR

Specified

packaging	product code
500 g Plastic jar	S/4080/53

CHNaO₂
CAS: 141-53-7
MW: 68.01
Boiling point: 360°C
Boiling pressure: 760 mmHg

Melting point: 258 to 261°C
HS-Nr: 29171990
EINECS: 205-488-0
Risk: R36/37/38
Safety: S26, S37/39



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<50 ppm

Sodium gluconate extra pure

SLR

Specified

packaging	product code
500 g Plastic jar	S/4100/53

C₆H₁₁NaO₇
CAS: 527-07-1
MW: 218.14
Melting point: 206-209°C

HS-Nr: 29181600
EINECS: 208-407-7
Safety: S24/25

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	5.5 to 7.5	Sulfate (SO ₄)	<0.02%
Iron (Fe)	<10 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<20 ppm		

Sodium β-glycerophosphate pentahydrate extra pure

SLR

Specified

packaging	product code
100 g Plastic jar	S/4110/48

C₃H₇NaO₆P.51/2H₂O
CAS: 819-83-0
MW: 315.11
Melting point: 102 to 104°C

HS-Nr: 29190091
EINECS: 212-464-3
Risk: R36/37/38
Safety: S26, S37/39



Assay: >97%

Guaranteed analysis

pH (aqueous solution 2%)	8 to 10.5	Lead (Pb)	<20 ppm
Inorganic Phosphate	<0.2%		

Sodium hexacyanoferrate(II) decahydrate

extra pure

SLR



packaging	product code
-----------	--------------

500 g Plastic jar

S/3840/53

Na₄Fe(CN)₆·10H₂O
CAS: 13601-19-9
MW: 484.07

HS-Nr: 29041000
EINECS: 237-081-9

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium hexametaphosphate

extra pure, powder mainly (NaPO₃)₆

SLR



packaging	product code
-----------	--------------

500 g Plastic jar

S/4160/53

1 kg Plastic jar

S/4160/60

Na₆O₁₈P₆
CAS: 10124-56-8
MW: 611.52
Density at 20°C: 2.18

HS-Nr: 38220000
EINECS: 233-343-1
Safety: S24/25

Sodium hexametaphosphate

pure, Flake, mainly (NaPO₃)₆

packaging	product code
-----------	--------------

500 g Plastic jar

S/4120/53

1 kg Plastic jar

S/4120/60

Na₆O₁₈P₆
CAS: 10124-56-8
MW: 611.52
Density at 20°C: 2.18

HS-Nr: 38220000
EINECS: 233-343-1
Safety: S24/25

Sodium hydrogen carbonate

for HPLC

NEW

Certified



packaging	product code
-----------	--------------

250 g Plastic Jar

S/4246/50

NaHCO₃
CAS: 144-55-8
MW: 84.01
Melting point: 270°C

HS-Nr: 28363000
EINECS: 205-633-8
Safety: S24/25

Guaranteed analysis

Iron (Fe)	<5 ppm	<0.03 A,U,	
Lead (Pb)	<2 ppm	Ammonium (NH ₄)	<0.0005 %
Absorbance at 254 nm (Sol.aq. 1 M)		pH (aqueous solution 1%)	<8.4

Sodium hydrogen carbonate

for analysis

Certified AR, Eur.Ph.



packaging	product code
-----------	--------------

500 g Plastic Jar

S/4240/53

1 kg Plastic Jar

S/4240/60

3 kg Plastic Jar

S/4240/63

5 kg Plastic Keg

S/4240/65

NaHCO₃
CAS: 144-55-8
MW: 84.01
Melting point: 270°C

HS-Nr: 28363000
EINECS: 205-633-8
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 1%)	8 to 8.5	Total chloride (Cl)	<0.005 %
Calcium (Ca)	<50 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<2 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<200 ppm		

Sodium hydrogen carbonate

extra pure

SLR



packaging	product code
-----------	--------------

1 kg Plastic Jar

S/4200/60

3 kg Plastic Jar

S/4200/63

5 kg Plastic Keg

S/4200/65

NaHCO₃

CAS: 144-55-8

MW: 84.01

Melting point: 270°C

HS-Nr: 28363000

EINECS: 205-633-8

Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.02%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<500 ppm		

di-Sodium hydrogen citrate sesquihydrate

extra pure

SLR



packaging	product code
-----------	--------------

500 g Plastic Jar

S/4280/53

C₆H₆Na₂O₇·1.5H₂O

CAS: 6132-05-4

MW: 263.11

Melting point: 149 °C

HS-Nr: 29181500

EINECS: 205-623-3

Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (solution 3%)	4.9 to 5.2	Sulfate (SO ₄)	<0.02%
Lead (Pb)	<10 ppm	Total chloride (Cl)	<0.01%
Potassium (K)	<200 ppm		

di-Sodium hydrogen orthophosphate anhydrous

AR, Eur.Ph., BP

for analysis

Certified



packaging	product code
-----------	--------------

500 g Plastic jar

S/4520/53

1 kg Plastic jar

S/4520/60

3 kg Plastic jar

S/4520/63

5 kg Plastic drum

S/4520/65

25 kg Fibre Keg

S/4520/70

Na₂HPO₄

CAS: 7558-79-4

MW: 141.96

HS-Nr: 28352200

EINECS: 231-448-7

Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.2%	Potassium (K)	<200 ppm
pH (aqueous solution 2%)	9 to 9.3	Total chloride (Cl)	<0.002 %
Calcium (Ca)	<20 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<5 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<10 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<1 ppm
Barium (Ba)	<1 ppm	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

di-Sodium hydrogen orthophosphate anhydrous SLR extra pure

packaging	product code
500 g Plastic jar	S/4480/53
1 kg Plastic jar	S/4480/60
5 kg Plastic drum	S/4480/65

Na_2HPO_4
 CAS: 7558-79-4
 MW: 141.96
 HS-Nr: 28352200
 EINECS: 231-448-7
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Loss on drying	<0.5%	Potassium (K)	<500 ppm
Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<50 ppm	Total silicon (Si)	<200 ppm
Iron (Fe)	<50 ppm	Total sulphur (S)	<100 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<200 ppm
Magnesium (Mg)	<50 ppm		

di-Sodium hydrogen orthophosphate dihydrate Certified HPLC for electrochemical detection

packaging	product code
500 g Plastic jar	S/4460/53

$\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$
 CAS: 10028-24-7
 MW: 177.99
 Melting point: 243 to 245°C
 HS-Nr: 38220000
 EINECS: 231-448-7
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<5 ppm
pH (solution 5%) 25°C	7.5 to 9.2	Total chloride (Cl)	<0.0005%
Iron (Fe)	<10 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.5 M) <0.05 A.U.

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

Lot analysis on the label.

Filtered to 0.2 µm.

di-Sodium hydrogen orthophosphate 0.25M solution Certified for HPLC

packaging	product code
500 mL Coated Glass Bottle	J/7650/PB08

HS-Nr: 28352200

Guaranteed analysis

Molarity 0.24 to 0.26 M

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

Drift in the baseline <40 mA.U. Gradient (max eluted peak) <0.005 mA.U.

di-Sodium hydrogen orthophosphate dihydrate Certified AR for analysis

packaging	product code
500 g Plastic jar	S/4450/53
1 kg Plastic jar	S/4450/60
5 kg Plastic drum	S/4450/65
10 kg Plastic screw top Keg	S/4450/68

$\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$
 CAS: 10028-24-7
 MW: 177.99
 Melting point: 243 to 245°C
 HS-Nr: 28352200
 EINECS: 231-448-7
 Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 2%)	9 to 9.3	Potassium (K)	<100 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.002 %
Copper (Cu)	<5 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<1 ppm
Barium (Ba)	<1 ppm	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

di-Sodium hydrogen orthophosphate dihydrate SLR extra pure

packaging	product code
500 g Plastic jar	S/4440/53
1 kg Plastic jar	S/4440/60
5 kg Plastic drum	S/4440/65

$\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$
 CAS: 10028-24-7
 MW: 177.99
 Melting point: 243 to 245°C
 HS-Nr: 28352200
 EINECS: 231-448-7
 Safety: S24/25

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<500 ppm		

di-Sodium hydrogen orthophosphate dodecahydrate Certified AR, Eur.Ph., BP for analysis

packaging	product code
500 g Plastic jar	S/4400/53
1 kg Plastic jar	S/4400/60
10 kg Plastic screw top Keg	S/4400/68

$\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$
 CAS: 10039-32-4
 MW: 358.14
 Melting point: 35°C
 HS-Nr: 28352200
 EINECS: 231-448-7
 Safety: S24/25

Assay: 99 to 102%

Guaranteed analysis

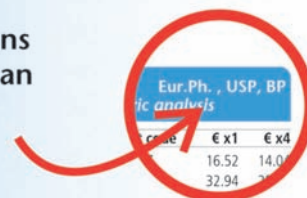
pH (aqueous solution 5%)	9.1 to 9.4	Potassium (K)	<50 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.002 %
Copper (Cu)	<2 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<5 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<1 ppm
Arsenic (As)	<2 ppm	Nickel (Ni)	<1 ppm
Barium (Ba)	<1 ppm	Silver (Ag)	<1 ppm
Cadmium (Cd)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm
Manganese (Mn)	<1 ppm		

Lot analysis on the label.

The ready to use solutions
 comply with the European
 Pharmacopeia
 Discover them
 at page 266



S di-Sodium hydrogen orthophosphate dodecahydrate

di-Sodium hydrogen orthophosphate dodecahydrate SLR extra pure



packaging	product code
500 g Plastic jar	S/4360/53
1 kg Plastic jar	S/4360/60
2.5 kg Plastic jar	S/4360/62

Na₂HPO₄·12H₂O
CAS: 10039-32-4
MW: 358.14
Melting point: 35°C

HS-Nr: 28352200
EINECS: 231-448-7
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<20 ppm

Guaranteed analysis

Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.005 %
Carbonate (Na ₂ CO ₃)	<1 %	Total nitrogen (N)	<10 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<5 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<200 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<10 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium hydrogen sulfate monohydrate Certified AR for analysis



packaging	product code
500 g Plastic Jar	S/4690/53

NaHSO₄·H₂O
CAS: 10034-88-5
MW: 138.08
Melting point: 58°C
ADR/RID: 8/III

UN: 3260
HS-Nr: 28331900
EINECS: 231-665-7
Risk: R41
Safety: S24, S26

Xi

Assay: >99%

Guaranteed analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<5 ppm
Barium (Ba)	<5 ppm	Molybdenum (Mo)	<5 ppm
Cadmium (Cd)	<5 ppm	Nickel (Ni)	<5 ppm
Calcium (Ca)	<20 ppm	Potassium (K)	<20 ppm
Chromium (Cr)	<5 ppm	Silver (Ag)	<5 ppm
Cobalt (Co)	<5 ppm	Strontium (Sr)	<5 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<5 ppm	Total nitrogen (N)	<10 ppm
Lead (Pb)	<5 ppm	Total phosphorus (P)	<5 ppm
Lithium (Li)	<5 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Sodium hydroxide pellets SLR extra pure



packaging	product code
250 g Plastic jar	S/4880/50
500 g Plastic jar	S/4880/53
1 kg Plastic jar	S/4880/60
3 kg Plastic jar	S/4880/63
5 kg Plastic jar	S/4880/65
10 kg Plastic drum	S/4880/68

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 2.13
Boiling point: 1390°C
Boiling pressure: 760 mmHg
Melting point: 318°C

ADR/RID: 8/II
UN: 1823
HS-Nr: 38220000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<2000 ppm
Carbonate (Na ₂ CO ₃)	<2%	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<500 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<500 ppm

Sodium hydrogen tartrate monohydrate SLR extra pure



packaging	product code
500 g Plastic jar	S/4720/53

NaHC₄O₆·H₂O
CAS: 6131-98-2
MW: 190.08

HS-Nr: 29181300
EINECS: 208-400-9

Assay: >98%

Sodium hydroxide pellets Certified AR, Eur.Ph., BP for analysis



packaging	product code
500 g Plastic jar	S/4920/53
1 kg Plastic jar	S/4920/60
3 kg Plastic jar	S/4920/63
5 kg Plastic jar	S/4920/65
10 kg Plastic drum	S/4920/68
25 kg Metal can	S/4920/70

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 2.13
Boiling point: 1390°C
Boiling pressure: 760 mmHg
Melting point: 318°C

ADR/RID: 8/II
UN: 1823
HS-Nr: 28092000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: >98%

Sodium hydroxide pearl Certified AR for analysis



packaging	product code
1 kg Plastic jar	S/4845/60
25 kg Metal drum	S/4845/70

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 2.13
Boiling point: 1390°C
Boiling pressure: 760 mmHg
Melting point: 318°C

ADR/RID: 8/II
UN: 1823
HS-Nr: 28092000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.005 %
Carbonate (Na ₂ CO ₃)	<1 %	Total nitrogen (N)	<5 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<500 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<10 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Sodium hydroxide pearl extra pure

SLR



packaging	product code
1 kg Plastic jar	S/4840/60
3 kg Plastic jar	S/4840/63

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 2.13
Boiling point: 1390°C
Boiling pressure: 760 mmHg
Melting point: 318°C

ADR/RID: 8/II
UN: 1823
HS-Nr: 28092000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<2000 ppm
Carbonate (Na ₂ CO ₃)	<2%	Total chloride (Cl)	<0.02%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<500 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm

Sodium hydroxide pearl Technical

packaging	product code
1 kg Plastic jar	S/4800/60
3 kg Plastic jar	S/4800/63
5 kg Plastic jar	S/4800/65
10 kg Plastic drum	S/4800/68
25 kg Metal can	S/4800/70

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 2.13
Boiling point: 1390°C
Boiling pressure: 760 mmHg
Melting point: 318°C

ADR/RID: 8/II
UN: 1823
HS-Nr: 28092000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Sodium hydroxide 46-48% solution HPLC for electrochemical detection

Certified



packaging	product code
2.5 L Plastic bottle	S/4940/17

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 1.5
Boiling point: 145°C
Boiling pressure: 760 mmHg
Melting point: 12°C

ADR/RID: 8/II
UN: 1824
HS-Nr: 28151200
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: 46 to 48%

Guaranteed analysis

Electrochemical test	Conform	Lead (Pb)	<5 ppm
Iron (Fe)	<5 ppm	Total chloride (Cl)	<0.01%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm <0.05 A.U.

Purified then tested by HPLC-EC to show low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

The concentration of a solution of sodium hydroxide 46/48% is 17.6 M (17.6 N).

Lot analysis on the label.

Filtered to 0.2 µm.

Sodium hydroxide 46-48% solution d=1.50 for analysis

Certified AR



packaging	product code
100 mL Plastic bottle	S/4930/05
1 L Plastic bottle	S/4930/15
2.5 L Plastic bottle	S/4930/17
5 L Plastic bottle	S/4930/21
25 L Metal drum	S/4930/25
200 L Metal drum	S/4930/27

NaOH
CAS: 1310-73-2
MW: 40
Density at 20°C: 1.5
Boiling point: 145°C
Boiling pressure: 760 mmHg
Melting point: 12°C

ADR/RID: 8/II
UN: 1824
HS-Nr: 28151200
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: 46 to 48%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.01 %
Carbonate (Na ₂ CO ₃)	<0.1 %	Total nitrogen (N)	<10 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<2 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<200 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<10 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Advantages:

(I) The use of a solution ready to use saving the time required for preparation and to limit the risks arising from manipulation of solid sodium hydroxide.

(II) An extremely low carbonate content for the preparation of carbonate-free sodium hydroxide solutions.

(III) Low nitrogen content of the solution permitting use in the determination of nitrogen by Kjeldahl method.

The concentration of a solution of sodium hydroxide 46/48% is 17.6 M (17.6 N).

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Sodium hydroxide 30% solution for analysis

Certified AR



packaging	product code
1 L Plastic bottle	S/4950/PB15
2.5 L Plastic bottle	S/4950/PB17

HNaO
CAS: 1310-73-2
MW: 40
Density at 20°C: 1.33
Boiling point: 145°C
Boiling pressure: 760 mmHg
Melting point: 12°C

ADR/RID: 8/II
UN: 1824
HS-Nr: 38220000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45

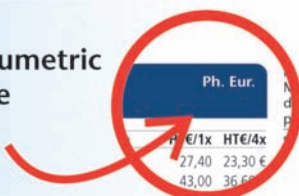


Assay: >30%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Potassium (K)	<200 ppm
Carbonate (Na ₂ CO ₃)	<0.1 %	Total chloride (Cl)	<0.1 %
Copper (Cu)	<2 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<2 ppm
Lead (Pb)	<1 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<10 ppm
Manganese (Mn)	<1 ppm	Zinc (Zn)	<5 ppm
Nickel (Ni)	<1 ppm		

Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Save money!
Order 4 bottles in a box



Sodium hydroxide 30% solution
extra pure

SLR



packaging	product code
1 L Plastic bottle	S/4945/PB15
5 L Plastic bottle	S/4945/PB21
20 L Plastic drum	S/4945/31

HNaO
CAS: 1310-73-2
MW: 40
Density at 20°C: 1.33
Boiling point: 145°C
Boiling pressure: 760 mmHg
Melting point: 12°C

ADR/RID: 8/II
UN: 1824
HS-Nr: 38220000
EINECS: 215-185-5
Risk: R35
Safety: S26, S37/39, S45



Assay: >30%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Potassium (K)	<200 ppm
Carbonate (Na ₂ CO ₃)	<0.1%	Total chloride (Cl)	<0.1%
Copper (Cu)	<2 ppm	Total nitrogen (N)	<10 ppm
Iron (Fe)	<5 ppm	Total phosphorus (P)	<2 ppm
Lead (Pb)	<1 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<5 ppm	Total sulphur (S)	<10 ppm
Manganese (Mn)	<1 ppm	Zinc (Zn)	<5 ppm
Nickel (Ni)	<1 ppm		

Sodium hydroxide solution 2M
pure, Bench Reagent

packaging	product code
2.5 L Plastic bottle	J/7810/17

ADR/RID: 8/II
UN: 1824
HS-Nr: 38220000

Risk: R35
Safety: S26, S37/39, S45

Sodium hydroxide solution 10M (10N) ca. 40w/v
Standard solution ready to use, For volumetric analysis

packaging	product code
1 L Plastic bottle	J/7800/15
2.5 L Plastic bottle	J/7800/17
5 L Plastic bottle	J/7800/21
10 L Cubitainer	J/7800/24
25 L Metal drum	J/7800/25

Density at 20°C: 1.32 to 1.34
Boiling point: 120°C
Boiling pressure: 760 mmHg
Melting point: 8°C
ADR/RID: 8/II

UN: 1824
HS-Nr: 38220000
Risk: R35
Safety: S26, S36/37/39, S45



Assay: 39.8 to 40.2%

Guaranteed analysis

Total nitrogen (N) <10 ppm

Manufactured to a tolerance of $\pm 0.5\%$.
See the full range of Standard Volumetric solution page 266.
see page for suitable Tap & accessories.

Sodium hydroxide solution 2M (2N) **NEW SPEC.**

BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7610/PB15
2.5 L Plastic bottle	J/7610/17
5 L Plastic bottle	J/7610/21

Density at 20°C: 1.36
Boiling point: 120°C
Boiling pressure: 760 mmHg
Melting point: 8°C
ADR/RID: 8/II

UN: 1824
HS-Nr: 28151200
Risk: R35
Safety: S26, S36/37/39, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 1M (1N) **NEW SPEC.**

Eur.Ph., USP, BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7620/15
2.5 L Plastic bottle	J/7620/17
5 L Plastic bottle	J/7620/21
10 L Cubitainer	J/7620/24

Density at 20°C: 1.04
ADR/RID: 8/III
UN: 1824

HS-Nr: 28151200
Risk: R34
Safety: S26, S37/39, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 1M (1N) **NEW SPEC.**

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/7620C/05
6 ampoule	J/7620C/90

ADR/RID: 8/III
UN: 1824
HS-Nr: 28151200

Risk: R35
Safety: S26, S37/39, S45



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution methanolic 1M (1N) **NEW SPEC.**

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7625/PB15
2.5 L Plastic bottle	J/7625/17

ADR/RID: 3(6.1)/II
UN: 3286
HS-Nr: 38220000

Risk: R11, R23/25, R34
Safety: S16, S24, S26,
S37/39, S45



Manufactured to a tolerance of $\pm 0.2\%$.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 0.5M (0.5N) **NEW SPEC.**

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7630/15
2.5 L Plastic bottle	J/7630/17
5 L Plastic bottle	J/7630/21
10 L Cubitainer	J/7630/24
200 L Metal drum	J/7630/27

Density at 20°C: 1.02
ADR/RID: 8/III
UN: 1824

HS-Nr: 28151200
Risk: R34
Safety: S26, S36/37/39, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 0.5M (0.5N) **NEW SPEC.**

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/7630C/05
6 ampoule	J/7630C/90

ADR/RID: 8/III
UN: 1824
HS-Nr: 28151200

Risk: R35
Safety: S26, S37/39, S45



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 0.2M (0.2N) NEW SPEC.

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7640/15
2.5 L Plastic bottle	J/7640/17
5 L Plastic bottle	J/7640/21
10 L Cubitainer	J/7640/24

Density at 20°C: 1.01 HS-Nr: 38220000
ADR/RID: 8/III Risk: R36/38
UN: 1824 Safety: S26, S37/39, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 0.1M (0.1N) NEW SPEC. Eur.Ph. , BP

NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7660/15
2.5 L Plastic bottle	J/7660/17
5 L Plastic bottle	J/7660/21
10 L Cubitainer	J/7660/24

Density at 20°C: 1.0 HS-Nr: 28151200
ADR/RID: 8/III Risk: S24/26
UN: 1824

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sodium hydroxide solution 0.1M (0.1N) NEW SPEC.

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/7660C/05
6 ampoule	J/7660C/90

ADR/RID: 8/III Risk: R34
UN: 1824 Safety: S26, S37/39, S45
HS-Nr: 28151200



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Sodium hypochlorite solution

Technical, min. 14% free chlorine

packaging	product code
1 L Plastic bottle	S/5042/15

NaOCl UN: 1791
CAS: 7681-52-9 HS-Nr: 38220000
MW: 74.44 EINECS: 231-668-3
Density at 20°C: 1.2 Risk: R31, R34
Melting point: -16°C Safety: S28A, S45, S50A
ADR/RID: 8/III



Guaranteed analysis

Chlorine >14%

Sodium hypochlorite solution self indicating

Technical

packaging	product code
5 L Plastic bottle	S/5041/21

NaClO UN: 1791
CAS: 7681-52-9 HS-Nr: 28289000
MW: 74.44 EINECS: 231-668-3
Density at 20°C: 1.2 Risk: R31, R34
Melting point: -16°C Safety: S28, S50, S45
ADR/RID: 8/III



Guaranteed analysis

Chlorine >10%

Contains about 20 ppm Potassium permanganate.

Sodium hypochlorite solution

Technical

packaging	product code
5 L Plastic bottle	S/5040/21

NaClO UN: 1791
CAS: 7681-52-9 HS-Nr: 28289000
MW: 74.44 EINECS: 231-668-3
Density at 20°C: 1.24 to 1.26 Risk: R31, R34
Melting point: -16°C Safety: S28, S50, S45
ADR/RID: 8/III



Guaranteed analysis

Alkalinity <2% Chlorine >13.5%

Sodium hypophosphite monohydrate

Certified AR for analysis



packaging	product code
500 g Plastic jar	S/5081/53

NaH₂PO₂·H₂O HS-Nr: 28351000
CAS: 10039-56-2 EINECS: 216-948-5
MW: 105.99 Safety: S24/25
Melting point: 90°C

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%) 5 to 7	Magnesium (Mg) <5 ppm
Aluminium (Al) <2 ppm	Manganese (Mn) <2 ppm
Ammonia (NH ₃) <0.0005%	Molybdenum (Mo) <2 ppm
Arsenic (As) <2 ppm	Nickel (Ni) <2 ppm
Barium (Ba) <2 ppm	Potassium (K) <100 ppm
Cadmium (Cd) <2 ppm	Silver (Ag) <2 ppm
Calcium (Ca) <100 ppm	Strontium (Sr) <2 ppm
Chromium (Cr) <2 ppm	Titanium (Ti) <2 ppm
Cobalt (Co) <2 ppm	Total chloride (Cl) <0.05%
Copper (Cu) <5 ppm	Total silicon (Si) <100 ppm
Iron (Fe) <5 ppm	Total sulphur (S) <200 ppm
Lead (Pb) <5 ppm	Vanadium (V) <2 ppm
Lithium (Li) <2 ppm	Zinc (Zn) <10 ppm

Lot analysis on the label.

Sodium iodate

extra pure

SLR



packaging	product code
100 g Plastic jar	S/5100/48

NaIO₃ HS-Nr: 28276000
CAS: 7681-55-2 EINECS: 231-672-5
MW: 197.89 Risk: R8, R22, R36/37/38
ADR/RID: 5.1/II Safety: S17, S26, S37/39
UN: 1479



Assay: >99.5%

Guaranteed analysis

Chloride and chlorate <0.04%	Sulfate (SO ₄) <0.03%
Iodide <0.002%	

Acids, Bases and Water

for Trace Metal analysis

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Read more page 9



Sodium iodide
for analysis

Certified AR



packaging	product code
100 g Plastic jar	S/5130/48
500 g Plastic jar	S/5130/53

NaI
CAS: 7681-82-5
MW: 149.89
Density at 20°C: 3.66
Boiling point: 1300°C
Boiling pressure: 760 mmHg
Melting point: 661°C
HS-Nr: 28276000
EINECS: 231-679-3
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Lead (Pb)	<2 ppm
Loss on drying	<0.5%	Magnesium (Mg)	<5 ppm
Substance reducing iodine	<0.005%	Potassium (K)	<100 ppm
Calcium (Ca)	<10 ppm	Total nitrogen (N)	<10 ppm
Chloride and Bromide	<0.01 %	Total phosphorus (P)	<10 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<20 ppm
Iodate (IO ₃)	<2 ppm	Total sulphur (S)	<100 ppm
Iron (Fe)	<2 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<0.1 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

Sodium iodide
extra pure

SLR



packaging	product code
100 g Plastic jar	S/5120/48
250 g Plastic jar	S/5120/50
500 g Plastic jar	S/5120/53

NaI
CAS: 7681-82-5
MW: 149.89
Density at 20°C: 3.66
Boiling point: 1300°C
Boiling pressure: 760 mmHg
Melting point: 661°C
HS-Nr: 28276000
EINECS: 231-679-3
Safety: S24/25

Assay: >99%

Guaranteed analysis

Loss on drying	<1%	Magnesium (Mg)	<20 ppm
Calcium (Ca)	<50 ppm	Potassium (K)	<500 ppm
Chloride and Bromide	<0.05%	Total phosphorus (P)	<50 ppm
Copper (Cu)	<20 ppm	Total silicon (Si)	<100 ppm
Iodate (IO ₃)	<10 ppm	Total sulphur (S)	<100 ppm
Iron (Fe)	<20 ppm	Zinc (Zn)	<50 ppm
Lead (Pb)	<20 ppm		

Sodium lactate solution about 60% w/w
extra pure

SLR



packaging	product code
500 mL Glass bottle	S/5161/08

C₃H₅NaO₃
CAS: 72-17-3
MW: 112.06
Density at 20°C: 1.32 to 1.34
HS-Nr: 29181100
EINECS: 200-772-0
Safety: S24/25

Sodium lauryl sulfate

See Sodium dodecyl sulfate, page 240

Sodium metabisulfite
for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/5250/53
1 kg Plastic jar	S/5250/60
5 kg Plastic jar	S/5250/65

Na₂S₂O₅
CAS: 7681-57-4
MW: 190.1
Melting point: 150 °C
HS-Nr: 28321000
EINECS: 231-673-0
Risk: R22, R31, R41
Safety: S26, S39, S46

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.005 %
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<5 ppm
Magnesium (Mg)	<20 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Arsenic (As)	<0.5 ppm	Nickel (Ni)	<2 ppm
Barium (Ba)	<2 ppm	Silver (Ag)	<2 ppm
Cadmium (Cd)	<2 ppm	Strontium (Sr)	<2 ppm
Chromium (Cr)	<2 ppm	Titanium (Ti)	<2 ppm
Cobalt (Co)	<2 ppm	Vanadium (V)	<2 ppm
Lithium (Li)	<2 ppm		

Lot analysis on the label.

Sodium metabisulfite
extra pure

SLR, Eur.Ph., BP



packaging	product code
500 g Plastic jar	S/5240/53
1 kg Plastic jar	S/5240/60
2.5 kg Plastic jar	S/5240/62

Na₂S₂O₅
CAS: 7681-57-4
MW: 190.1
Melting point: 150 °C
HS-Nr: 28321000
EINECS: 231-673-0
Risk: R22, R31, R41
Safety: S26, S39, S46

Assay: >93%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.5%
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<100 ppm		

Sodium metaborate
extra pure

SLR



packaging	product code
500 g Plastic jar	S/5280/53

NaBO₂·4H₂O
CAS: 10555-76-7
MW: 137.87
Melting point: 57°C
HS-Nr: 28402090
EINECS: 231-891-6
Safety: S24/25

Assay: >98%

Guaranteed analysis

Sulfate (SO ₄)	<0.03%	Total chloride (Cl)	<0.01%
----------------------------	--------	---------------------	--------

Sodium metasilicate pentahydrate
Technical

packaging	product code
1 kg Plastic jar	S/5360/60
3 kg Plastic jar	S/5360/63

Na₂O₃Si₂·5H₂O
CAS: 10213-79-3
MW: 212.14
ADR/RID: 8/III
UN: 3253
HS-Nr: 28391100
EINECS: 229-912-9
Risk: R22, R36/38
Safety: S26

Sodium molybdate dihydrate for analysis

Certified AR



packaging	product code
100 g Plastic jar	S/5480/48
250 g Plastic jar	S/5480/50

Na ₂ MoO ₄ ·2H ₂ O	HS-Nr: 28417000	
CAS: 10102-40-6	EINECS: 231-551-7	
MW: 241.95	Risk: R36/37/38	
Density at 20°C: 3.28	Safety: S24/25	

Assay: >99%

Guaranteed analysis

pH (aqueous solution 5%)	7 to 10	Magnesium (Mg)	<20 ppm
Calcium (Ca)	<50 ppm	Potassium (K)	<500 ppm
Chloride total (Cl)	< 0.001 %	Total nitrogen (N)	<50 ppm
Copper (Cu)	<20 ppm	Total sulphur (S)	<200 ppm
Iron (Fe)	<20 ppm	Zinc (Zn)	<10 ppm
Lead (Pb)	<20 ppm	Total chloride (Cl)	<0.001%

Typical analysis

Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Chromium (Cr)	<2 ppm	Silver (Ag)	<2 ppm
Cobalt (Co)	<2 ppm	Strontium (Sr)	<2 ppm
Lithium (Li)	<2 ppm	Titanium (Ti)	<2 ppm
Manganese (Mn)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

Sodium molybdate dihydrate extra pure

SLR



packaging	product code
250 g Plastic jar	S/5440/50
500 g Plastic jar	S/5440/53

Na ₂ MoO ₄ ·2H ₂ O	HS-Nr: 28417000	
CAS: 10102-40-6	EINECS: 231-551-7	
MW: 241.95	Risk: R36/37/38	
Density at 20°C: 3.28	Safety: S24/25	

Assay: >95%

Sodium nitrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/5560/53
3 kg Plastic jar	S/5560/63

NaNO ₃	ADR/RID: 5.1/III	
CAS: 7631-99-4	UN: 1498	
MW: 84.99	HS-Nr: 31025090	
Boiling point: 380°C	EINECS: 231-554-3	
Boiling pressure: 760 mmHg	Risk: R8, R22, R36/37/38	
Melting point: 306°C	Safety: S17, S26, S37/39	

Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Nitrite (NO ₂)	<0.001 %
Calcium (Ca)	<20 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.0005 %
Iodate (IO ₃)	<5 ppm	Total phosphorus (P)	<2 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium nitrate extra pure

SLR



packaging	product code
500 g Plastic jar	S/5520/53
1 kg Plastic jar	S/5520/60
3 kg Plastic jar	S/5520/63

NaNO ₃	ADR/RID: 5.1/III	
CAS: 7631-99-4	UN: 1498	
MW: 84.99	HS-Nr: 31025090	
Boiling point: 380°C	EINECS: 231-554-3	
Boiling pressure: 760 mmHg	Risk: R8, R22, R36/37/38	
Melting point: 306°C	Safety: S17, S26, S37/39	

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<20 ppm
Potassium (K)	<500 ppm		

Sodium nitrite for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/5640/53
2.5 kg Plastic jar	S/5640/62

NaNO ₂	ADR/RID: 5.1(6.1)/III	
CAS: 7632-00-0	UN: 1500	
MW: 69	HS-Nr: 28341000	
Boiling point: 320°C	EINECS: 231-555-9	
Boiling pressure: 760 mmHg	Risk: R8, R25, R50	
Melting point: 271°C	Safety: S45, S61	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<10 ppm	Total chloride (Cl)	<0.002 %
Copper (Cu)	<5 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<100 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<0.5 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

Sodium nitrite extra pure

SLR



packaging	product code
500 g Plastic jar	S/5600/53
1 kg Plastic jar	S/5600/60
2.5 kg Plastic jar	S/5600/62

NaNO ₂	ADR/RID: 5.1(6.1)/III	
CAS: 7632-00-0	UN: 1500	
MW: 69	HS-Nr: 28341000	
Boiling point: 320°C	EINECS: 231-555-9	
Boiling pressure: 760 mmHg	Risk: R8, R25, R50	
Melting point: 271°C	Safety: S45, S61	

Assay: >97%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<500 ppm		

Sodium nitrite solution 0.5M (0.5N) *NEW SPEC.*
NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Glass bottle	J/7900/15

HS-Nr: 38220000
 Risk: R22
 Safety: S45



Manufactured to a tolerance of $\pm 0.3\%$.
 See the full range of Standard Volumetric solution page 266.

Sodium nitroprusside
extra pure

SLR

packaging	product code
100 g Plastic jar	S/5680/48

$\text{C}_5\text{FeN}_6\text{Na}_2\text{O}_2\cdot\text{H}_2\text{O}$
 CAS: 13755-38-9
 MW: 297.94
 Density at 20°C: 1.72
 ADR/RID: 4.1(6.1)/II
 UN: 1588

HS-Nr: 28372000
 EINECS: 238-373-9
 Risk: R23/24/25
 Safety: S28A, S36/37/39,
 S38, S45

**Guaranteed analysis**

Ferricyanide <0.02 % Sulfate (SO_4) <0.05 %
 Ferrocyanide <0.1 %

tri-Sodium orthophosphate dodecahydrate *Certified AR*
for analysis


packaging	product code
500 g Plastic jar	S/5761/53

$\text{Na}_3\text{PO}_4\cdot 12\text{H}_2\text{O}$
 CAS: 10101-89-0
 MW: 380.12
 Density at 20°C: 1.62
 Melting point: 75°C
 ADR/RID: 8/II

UN: 3262
 HS-Nr: 28352300
 EINECS: 231-509-8
 Risk: R35
 Safety: S26, S36/37/39, S45

**Assay: 99 to 101%****Guaranteed analysis**

Alkalinity <0.7 meq/g	Manganese (Mn) <2 ppm
Aluminium (Al) <2 ppm	Molybdenum (Mo) <2 ppm
Arsenic (As) <2 ppm	Nickel (Ni) <2 ppm
Barium (Ba) <2 ppm	Potassium (K) <50 ppm
Cadmium (Cd) <2 ppm	Silver (Ag) <2 ppm
Calcium (Ca) <50 ppm	Strontium (Sr) <2 ppm
Chromium (Cr) <2 ppm	Titanium (Ti) <2 ppm
Cobalt (Co) <2 ppm	Total chloride (Cl) <0.001%
Copper (Cu) <5 ppm	Total nitrogen (N) <10 ppm
Iron (Fe) <10 ppm	Total silicon (Si) <50 ppm
Lead (Pb) <5 ppm	Total sulphur (S) <50 ppm
Lithium (Li) <2 ppm	Vanadium (V) <2 ppm
Magnesium (Mg) <20 ppm	Zinc (Zn) <10 ppm

Lot analysis on the label.

tri-Sodium orthophosphate dodecahydrate
extra pure

SLR



packaging	product code
250 g Plastic jar	S/5760/50
500 g Plastic jar	S/5760/53
1 kg Plastic jar	S/5760/60
5 kg Plastic drum	S/5760/65

$\text{Na}_3\text{PO}_4\cdot 12\text{H}_2\text{O}$
 CAS: 10101-89-0
 MW: 380.13
 Density at 20°C: 1.62
 Melting point: 75°C
 ADR/RID: 8/II

UN: 3262
 HS-Nr: 28352300
 EINECS: 231-509-8
 Risk: R35
 Safety: S26, S36/37/39, S45

**Assay: >98%****Guaranteed analysis**

Calcium (Ca) <200 ppm	Potassium (K) <200 ppm
Copper (Cu) <20 ppm	Total chloride (Cl) <0.01%
Iron (Fe) <50 ppm	Total silicon (Si) <200 ppm
Lead (Pb) <20 ppm	Total sulphur (S) <200 ppm
Magnesium (Mg) <100 ppm	Zinc (Zn) <50 ppm

Sodium oxalate
pure

packaging	product code
500 g Plastic jar	S/5800/53

$\text{C}_2\text{Na}_2\text{O}_4$
 CAS: 62-76-0
 MW: 134
 Melting point: 250-270°C
 ADR/RID: 6.1/III

UN: 2811
 HS-Nr: 29171100
 EINECS: 200-549-8
 Risk: R21/22
 Safety: S24/25


Sodium perborate trihydrate
extra pure

SLR



packaging	product code
500 g Plastic jar	S/5880/53

$\text{NaBO}_3\cdot 4\text{H}_2\text{O}$
 CAS: 10486-00-7
 MW: 153.87
 Melting point: 60°C
 ADR/RID: 5.1/III

UN: 1479
 HS-Nr: 29171100
 EINECS: 231-556-4
 Risk: R8, R22, R36/37/38
 Safety: S17, S26, S37/39


Sodium perchlorate
for HPLC

Certified



packaging	product code
250 g Plastic jar	S/5966/50

$\text{NaClO}_4\cdot \text{H}_2\text{O}$
 CAS: 7791-07-3
 MW: 140.46
 ADR/RID: 5.1/II
 UN: 1502

HS-Nr: 28299010
 EINECS: 231-511-9
 Risk: R9, R22
 Safety: S13, S22, S27

**Assay: >99%****Guaranteed analysis**

Iron (Fe) <2 ppm Phosphate (PO_4) <5 ppm
 Lead (Pb) <2 ppm

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
 254 nm <0.02 A.U.

Lot analysis on the label.
 Filtered to 0.2 μm .

Sodium perchlorate
for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/5965/53

$\text{NaClO}_4\cdot \text{H}_2\text{O}$
 CAS: 7791-07-3
 MW: 140.46
 ADR/RID: 5.1/II
 UN: 1502

HS-Nr: 28299010
 EINECS: 231-511-9
 Risk: R9, R22
 Safety: S13, S22, S27

**Assay: >99%****Guaranteed analysis**

pH (aqueous solution 5%) 4.5 to 7	Magnesium (Mg) <10 ppm
Calcium (Ca) <20 ppm	Potassium (K) <50 ppm
Chloride and chlorate <0.002 %	Total phosphorus (P) <10 ppm
Copper (Cu) <5 ppm	Total silicon (Si) <10 ppm
Iron (Fe) <5 ppm	Total sulphur (S) <20 ppm
Lead (Pb) <5 ppm	Zinc (Zn) <5 ppm

Typical analysis

Aluminium (Al) <2 ppm	Molybdenum (Mo) <2 ppm
Cadmium (Cd) <2 ppm	Nickel (Ni) <2 ppm
Chromium (Cr) <2 ppm	Silver (Ag) <2 ppm
Cobalt (Co) <2 ppm	Strontium (Sr) <2 ppm
Lithium (Li) <2 ppm	Titanium (Ti) <2 ppm
Manganese (Mn) <2 ppm	Vanadium (V) <2 ppm

Lot analysis on the label.

Sodium perchlorate extra pure

SLR

SpeciFied LR	packaging	product code
	250 g Plastic jar	S/5960/50
	500 g Plastic jar	S/5960/53

NaClO ₄ ·H ₂ O	HS-Nr: 28299010	Xn O
CAS: 7791-07-3	EINECS: 231-511-9	
ADR/RID: 5.1/II	Risk: R9, R22	
UN: 1502	Safety: S13, S22, S27	

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<500 ppm
Chloride and chlorate	<0.02%	Total phosphorus (P)	<100 ppm
Copper (Cu)	<50 ppm	Total silicon (Si)	<100 ppm
Iron (Fe)	<50 ppm	Total sulphur (S)	<200 ppm
Lead (Pb)	<50 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<100 ppm		

Sodium peroxide for analysis

Certified AR

CertiFied AR	packaging	product code
	500 g Metal packaging	S/6041/53

Na ₂ O ₂	UN: 1504	O C
CAS: 1313-60-6	HS-Nr: 38220000	
MW: 77.98	EINECS: 215-209-4	
Density at 20°C: 2.8	Risk: R8, R35	
Melting point: 460 °C	Safety: S8, S27, S39, S45	
ADR/RID: 5.1/I		

Assay: >95%

Guaranteed analysis

Calcium (Ca)	<500 ppm	Total chloride (Cl)	<0.005 %
Copper (Cu)	<20 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<500 ppm	Zinc (Zn)	<50 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Cadmium (Cd)	<5 ppm	Nickel (Ni)	<5 ppm
Chromium (Cr)	<5 ppm	Silver (Ag)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm		

Sodium peroxide extra pure, granulated

SLR

SpeciFied LR	packaging	product code
	500 g Metal packaging	S/6040/53

Na ₂ O ₂	UN: 1504	O C
CAS: 1313-60-6	HS-Nr: 28153000	
MW: 77.98	EINECS: 215-209-4	
Density at 20°C: 2.8	Risk: R8, R35	
Melting point: 460 °C	Safety: S8, S27, S39, S45	
ADR/RID: 5.1/I		

Assay: >93%

Sodium peroxydisulfate

See Sodium persulfate, page 251



pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Sodium persulfate extra pure

SLR

SpeciFied LR	packaging	product code
	500 g Plastic jar	S/6080/53

Na ₂ S ₂ O ₈	UN: 1505	O Xn
CAS: 7775-27-1	HS-Nr: 28334000	
MW: 238.09	EINECS: 231-892-1	
Melting point: 100 °C	Risk: R8, R22, R42/43	
ADR/RID: 5.1/III	Safety: S8, S17, S26	

Assay: >96%

Guaranteed analysis

Ammonia (NH ₃)	<0.2%	Total chloride (Cl)	<0.005%
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Sodium propionate extra pure

SLR

SpeciFied LR	packaging	product code
	500 g Plastic jar	S/6100/53

C ₃ H ₅ NaO ₂	HS-Nr: 29155000	Xn
CAS: 137-40-6	EINECS: 205-290-4	
MW: 96.06	Risk: R21, R38	
Melting point: 285 to 286 °C	Safety: S26, S36/37/39	
Flash point: >250 °C		

Assay: >99%

tetra-Sodium pyrophosphate decahydrate for analysis

Certified AR

CertiFied AR	packaging	product code
	500 g Plastic jar	S/6140/53

Na ₄ P ₂ O ₇ ·12H ₂ O	Boiling pressure: 760 mmHg	
CAS: 13472-36-1	Melting point: 80 °C	
MW: 446.05	HS-Nr: 28352900	
Density at 20°C: 1.82	EINECS: 205-290-4	
Boiling point: 93.8 °C	Safety: S24/25	

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	10.2 to 10.7	Magnesium (Mg)	<10 ppm
Cadmium (Cd)	<5 ppm	Potassium (K)	<50 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.002 %
Copper (Cu)	<2 ppm	Total silicon (Si)	<50 ppm
Iron (Fe)	<2 ppm	Total sulphur (S)	<50 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Chromium (Cr)	<5 ppm	Silver (Ag)	<5 ppm
Cobalt (Co)	<5 ppm	Strontium (Sr)	<5 ppm
Lithium (Li)	<5 ppm	Titanium (Ti)	<5 ppm
Manganese (Mn)	<5 ppm	Vanadium (V)	<5 ppm

tetra-Sodium pyrophosphate decahydrate extra pure

SLR

SpeciFied LR	packaging	product code
	1 kg Plastic jar	S/6120/60

Na ₄ P ₂ O ₇ ·12H ₂ O	Boiling pressure: 760 mmHg	
CAS: 13472-36-1	Melting point: 80 °C	
MW: 446.05	HS-Nr: 28352900	
Density at 20°C: 1.82	EINECS: 205-290-4	
Boiling point: 93.8 °C	Safety: S24/25	

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<10 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Sodium pyrosulfite See Sodium metabisulfite, page 248



Sodium salicylate
extra pure

SLR



packaging	product code
500 g Plastic Jar	S/6200/53
25 kg Fibre Keg	S/6200/70

$C_7H_5NaO_3$
CAS: 54-21-7
MW: 160.11
Melting point: 200°C

HS-Nr: 29182100
EINECS: 200-198-0
Risk: R22



Assay: >99.5%

Guaranteed analysis

Water	<1%	Sulfate (SO_4)	<0.1%
Arsenic (As)	<2 ppm	Total chloride (Cl)	<0.04%
Lead (Pb)	<10 ppm		

Sodium selenite
extra pure

SLR



packaging	product code
25 g Plastic jar	S/6280/46

Na_2SeO_3
CAS: 10102-18-8
MW: 172.94
Melting point: 350°C
ADR/RID: 6.1/I

UN: 2630
HS-Nr: 28429010
EINECS: 233-267-9
Risk: R23, R28, R31, R43, R51/53
Safety: S28A, S36/37, S45, S61



Assay: >99%

Guaranteed analysis

pH (aqueous solution 2%) 9 to 11

Sodium sesquicarbonate dihydrate
pure

packaging	product code
3 kg Plastic jar	S/6310/63

$Na_2CO_3 \cdot NaHCO_3 \cdot 2H_2O$
CAS: 6106-20-3
MW: 226.03
HS-Nr: 28369919

Sodium silicate powder
Technical

packaging	product code
1 kg Plastic jar	S/6400/60

Na_2SiO_3
CAS: 6834-92-0
ADR/RID: 8/III
UN: 1759

HS-Nr: 28391900
Risk: R36/38
Safety: S26, S28

Ratio SiO_2/Na_2O approx.Sodium silicate solution d=1.5
Technical

packaging	product code
2.5 L Plastic bottle	S/6340/17
25 L Metal drum	S/6340/25

$SiO_2 \cdot Na_2O \cdot 7Si_3$
CAS: 1344-09-8
ADR/RID: 8/II
UN: 1760

HS-Nr: 28391900
Risk: R36/38
Safety: S26, S28



Wt ratio $SiO_2: Na_2O$ approx. 2:1
see page 279 for suitable Tap & accessories.

Sodium succinate disodium salt hexahydrate
extra pure

SLR



packaging	product code
500 g Plastic Jar	S/6480/53

$C_4H_4Na_2O_4 \cdot 6H_2O$
CAS: 6106-21-4
MW: 270.15
Melting point: >300°C

HS-Nr: 29171990
EINECS: 205-778-7
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Sodium sulfate anhydrous
for residue and pesticide analysis

Distol



packaging	product code
1 kg Plastic jar	S/6660/60

Na_2SO_4
CAS: 7757-82-6
MW: 142.04
Density at 20°C: 2.68
Boiling point: >1700°C

Boiling pressure: 760 mmHg
Melting point: 884°C
HS-Nr: 28331100
EINECS: 231-820-9
Safety: S24/25

Assay (GC): 99.0 - 101.0%

Sodium sulfate anhydrous
for analysis, granular

Certified AR



packaging	product code
500 g Plastic jar	S/6640/53
1 kg Plastic jar	S/6640/60
3 kg Plastic jar	S/6640/63
5 kg Plastic jar	S/6640/65
10 kg Plastic drum	S/6640/68

Na_2SO_4
CAS: 7757-82-6
MW: 142.04
Density at 20°C: 2.68
Boiling point: >1700°C

Boiling pressure: 760 mmHg
Melting point: 884°C
HS-Nr: 28331100
EINECS: 231-820-9
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.2%	Magnesium (Mg)	<20 ppm
pH (aqueous solution 5%)	5 to 7	Potassium (K)	<100 ppm
Reducing substance	<0.002%	Total chloride (Cl)	<0.001 %
Substance oxidizing	Conform	Total nitrogen (N)	<10 ppm
Calcium (Ca)	<50 ppm	Total phosphorus (P)	<20 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<20 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<10 ppm
Lead (Pb)	<2 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Standard Certified
for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Sodium sulfate anhydrous for analysis, fine powder

Certified AR



packaging	product code
500 g Plastic jar	S/6650/53
1 kg Plastic jar	S/6650/60
5 kg Plastic jar	S/6650/65

Na_2SO_4
 CAS: 7757-82-6
 MW: 142.04
 Density at 20°C: 2.68
 Boiling point: >1700°C
 Boiling pressure: 760 mmHg
 Melting point: 884°C
 HS-Nr: 28331100
 EINECS: 231-820-9
 Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Loss on drying	<0.2%	Magnesium (Mg)	<20 ppm
Reducing substance	<0.002%	Potassium (K)	<100 ppm
Substance oxidizing	Conform	Total chloride (Cl)	<0.001 %
Calcium (Ca)	<50 ppm	Total nitrogen (N)	<10 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium sulfate anhydrous extra pure

SLR



packaging	product code
500 g Plastic jar	S/6600/53
1 kg Plastic jar	S/6600/60
3 kg Plastic jar	S/6600/63
5 kg Plastic jar	S/6600/65
25 kg Plastic jar	S/6600/70

Na_2SO_4
 CAS: 7757-82-6
 MW: 142.04
 Density at 20°C: 2.68
 Boiling point: >1700°C
 Boiling pressure: 760 mmHg
 Melting point: 884°C
 HS-Nr: 28331100
 EINECS: 231-820-9
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Loss on drying	<0.5%	Potassium (K)	<500 ppm
Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<10 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<100 ppm		

Sodium sulfate decahydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/6560/53
1 kg Plastic jar	S/6560/60

$\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
 CAS: 7727-73-3
 MW: 322.19
 Melting point: 32°C
 HS-Nr: 28331100
 EINECS: 231-820-9
 Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	6 to 7	Magnesium (Mg)	<5 ppm
Reducing substance	<0.001%	Potassium (K)	<50 ppm
Substance oxidizing	Conform	Total chloride (Cl)	<0.0005 %
Calcium (Ca)	<50 ppm	Total nitrogen (N)	<5 ppm
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<1 ppm	Zinc (Zn)	<5 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Lot analysis on the label.

Sodium sulfate decahydrate extra pure

SLR



packaging	product code
1 kg Plastic jar	S/6520/60

$\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
 CAS: 7727-73-3
 MW: 322.19
 Melting point: 32°C
 HS-Nr: 28331100
 EINECS: 231-820-9
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<20 ppm

Sodium sulfite anhydrous for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/6850/53
1 kg Plastic jar	S/6850/60

Na_2SO_3
 CAS: 7757-83-7
 MW: 126.05
 Density at 20°C: 2.63
 HS-Nr: 28321000
 EINECS: 231-821-4
 Risk: R22, R36/37/38
 Safety: S24/25



Assay: >98%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.05 %
Iron (Fe)	<10 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<100 ppm
Magnesium (Mg)	<20 ppm		

Typical analysis

Aluminium (Al)	<5 ppm	Manganese (Mn)	<5 ppm
Arsenic (As)	<0.5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm

Lot analysis on the label.

Sodium sulfite anhydrous extra pure

SLR



packaging	product code
500 g Plastic jar	S/6840/53
1 kg Plastic jar	S/6840/60
3 kg Plastic jar	S/6840/63

Na_2SO_3
 CAS: 7757-83-7
 MW: 126.05
 Density at 20°C: 2.63
 HS-Nr: 28321000
 EINECS: 231-821-4
 Risk: R22, R36/37/38
 Safety: S24/25



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<1000 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.1%
Iron (Fe)	<50 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<50 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<100 ppm		

di-Sodium tetraborate decahydrate for analysis

Certified AR

packaging	product code
250 g Plastic jar	S/7040/50
500 g Plastic jar	S/7040/53
1 kg Plastic jar	S/7040/60
5 kg Plastic drum	S/7040/65

Na ₂ B ₄ O ₇ ·10H ₂ O	HS-Nr: 38220000	Xn
CAS: 1303-96-4	EINECS: 215-540-4	
MW: 381.37	Risk: R62	
Melting point: 75°C	Safety: S36/37	

Assay: 99.5 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	9.1 to 9.3	Potassium (K)	<100 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<5 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Typical analysis			
Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm

Lot analysis on the label.

di-Sodium tetraborate decahydrate extra pure, crystals

SLR

packaging	product code
3 kg Plastic jar	S/7000/63

Na ₂ B ₄ O ₇ ·10H ₂ O	HS-Nr: 38220000	Xn
CAS: 1303-96-4	EINECS: 215-540-4	
MW: 381.37	Risk: R62	
Melting point: 75°C	Safety: S36/37	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm

di-Sodium tetraborate decahydrate extra pure

SLR, Eur. Ph.

packaging	product code
1 kg Plastic jar	S/7010/60
3 kg Plastic jar	S/7010/63

Na ₂ B ₄ O ₇ ·10H ₂ O	HS-Nr: 38220000	Xn
CAS: 1303-96-4	EINECS: 215-540-4	
MW: 381.37	Risk: R62	
Melting point: 75°C	Safety: S36/37	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<50 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<50 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<500 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<100 ppm

Sodium tetrahydroborate

See Sodium borohydride, page 235



Sodium thiocyanate, anhydrous extra pure

SLR

packaging	product code
500 g Plastic jar	S/7120/53

NaSCN	HS-Nr: 28429080	Xn
CAS: 540-72-7	EINECS: 208-754-4	
MW: 81.07	Risk: R20/21/22, R32	
Melting point: 287°C	Safety: S13, S2	

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Magnesium (Mg)	<50 ppm
Copper (Cu)	<10 ppm	Potassium (K)	<500 ppm
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.05%
Lead (Pb)	<10 ppm	Zinc (Zn)	<100 ppm

Sodium thiosulfate anhydrous extra pure

SLR

packaging	product code
500 g Plastic jar	S/7250/53
3 kg Plastic jar	S/7250/63

Na ₂ S ₂ O ₃	Melting point: 48°C
CAS: 7772-98-7	HS-Nr: 28323000
MW: 158.11	EINECS: 231-867-5
Density at 20°C: 1.66	Safety: S24/25
Boiling point: 100°C	

Sodium thiosulfate pentahydrate for analysis

Certified AR

packaging	product code
500 g Plastic jar	S/7240/53
1 kg Plastic jar	S/7240/60
3 kg Plastic jar	S/7240/63
5 kg Plastic drum	S/7240/65
25 kg Plastic screw top Keg	S/7240/70

Na ₂ S ₂ O ₃ ·5H ₂ O	Melting point: 48.5°C
CAS: 10102-17-7	HS-Nr: 28323000
MW: 248.18	EINECS: 231-867-5
Density at 20°C: 1.72	Safety: S24/25

Assay: 99.5 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	5.5 to 7.5	Sulfide (S)	<0.0002 %
Calcium (Ca)	<20 ppm	Sulphate and sulphite	>0.02 %
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.02 %
Iron (Fe)	<5 ppm	Total nitrogen (N)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm
Potassium (K)	<50 ppm		

Typical analysis			
Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

NIST Certified Standard from SPEX

A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS
Discover them on page 258



Sodium thiosulfate pentahydrate extra pure

SLR

Specified	packaging	product code
	1 kg Plastic jar	S/7200/60
	3 kg Plastic jar	S/7200/63

$\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$
 CAS: 10102-17-7
 MW: 248.18
 Density at 20°C: 1.72
 Melting point: 48.5°C
 HS-Nr: 28323000
 EINECS: 231-867-5
 Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<500 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.1%
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<50 ppm		

Sodium thiosulfate pentahydrate Technical

packaging	product code
3 kg Plastic jar	S/7160/63

$\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$
 CAS: 10102-17-7
 MW: 248.18
 Density at 20°C: 1.72
 Melting point: 48.5°C
 HS-Nr: 28323000
 EINECS: 231-867-5
 Safety: S24/25

Sodium thiosulfate solution 0.1M (0.1N) **NEW SPEC.** Eur.Ph., USP, BP NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/7950/15
2.5 L Plastic bottle	J/7950/17
5 L Plastic bottle	J/7950/21
10 L Cubitainer	J/7950/24

HS-Nr: 38220000
 Safety: S24/25

Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Sodium thiosulfate solution 0.1M (0.1N) **NEW SPEC.** NIST Standard Concentrate, For Volumetric analysis

Solutrate	packaging	product code
	1 ampoule	J/7950C/05
	6 ampoule	J/7950C/90

HS-Nr: 38220000

Each ampoule makes 1 L of solution.

See the full range of Standard Volumetric solution page 266.

Sodium thiosulfate solution 0.5M (0.5N) NIST Standard Concentrate, For Volumetric analysis

Solutrate	packaging	product code
	1 ampoule	J/7951C/05
	6 ampoule	J/7951C/90

HS-Nr: 38220000

Each ampoule makes 500 mL of solution.

See the full range of Standard Volumetric solution page 266.

Sodium tungstate dihydrate extra pure

SLR

Specified	packaging	product code
	100 g Plastic jar	S/7320/48

$\text{Na}_2\text{WO}_4 \cdot 2\text{H}_2\text{O}$
 CAS: 10213-10-2
 MW: 329.86
 Density at 20°C: 4.18
 HS-Nr: 28418000
 EINECS: 236-743-4
 Risk: R22, R36/38
 Safety: S26, S37/39

Xn

Assay: 98 to 102%

Guaranteed analysis

pH (aqueous solution 2%)	7 to 10	Potassium (K)	<500 ppm
Calcium (Ca)	<50 ppm	Total chloride (Cl)	<0.01%
Copper (Cu)	<20 ppm	Total silicon (Si)	<500 ppm
Iron (Fe)	<20 ppm	Total sulphur (S)	<500 ppm
Lead (Pb)	<20 ppm	Zinc (Zn)	<20 ppm
Magnesium (Mg)	<20 ppm		

Sorbic acid extra pure

SLR

Specified	packaging	product code
	100 g Plastic Jar	S/7390/48

$\text{C}_6\text{H}_8\text{O}_2$
 CAS: 110-44-1
 MW: 112.13
 Melting point: 132 to 135°C
 Flash point: 127°C
 HS-Nr: 29161930
 EINECS: 203-768-7
 Risk: R36/38
 Safety: S24/25

Xi

Assay: >98.5%

Sorbitol extra pure

SLR, Eur.Ph., USP

Specified	packaging	product code
	500 g Plastic jar	S/7400/53
	3 kg Plastic jar	S/7400/63

$\text{C}_6\text{H}_{14}\text{O}_6$
 CAS: 50-70-4
 MW: 182.18
 Boiling pressure: 760 mmHg
 Melting point: 95 to 99°C
 HS-Nr: 29054491
 EINECS: 200-061-5
 Safety: S24/25

Guaranteed analysis

Melting Point tested	95 to 100°C	Water	<2%
Residue after ignition	<0.1%		

Fisher Chemical packaging

A convenient and complete range
for a cleaner and safer world!



Fisher Chemical products takes care of the environment!

Our packaging used for shipping
 is 100% recyclable and complies
 with UN regulations for your safety.
 Choosing for Fisher Chemical products
 therefore reduces your waste
 management cost without
 compromising safety and
 contributing to a cleaner
 environment.



Fisher Chemical Standard mono-element solution for AAS

Manufactured to a tolerance of $\pm 0.5\%$

See alphabetical entry in the main body of this catalogue for full details

designation	matrix	packsize	package type	product code
Aluminium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8000/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8000/08
Antimony standard metal solution 1000 ppm	HCl 1 mol/l	100 mL	Plastic bottle	J/8002/05
	HCl 1 mol/l	500 mL	Plastic bottle	J/8002/08
Arsenic standard metal solution 1000 ppm	HCl 1 mol/l	100 mL	Plastic bottle	J/8003/05
	HCl 1 mol/l	500 mL	Plastic bottle	J/8003/08
Barium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8004/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8004/08
Boron standard metal solution 1000 ppm	H ₂ O	100 mL	Plastic bottle	J/8006/05
	H ₂ O	500 mL	Plastic bottle	J/8006/08
Cadmium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8005/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8005/08
Calcium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8010/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8010/08
Chromium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8015/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8015/08
Cobalt standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8020/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8020/08
Copper standard metal solution 1000 ppm	HNO ₃ 1 mol/l	1 L	Plastic bottle	J/8025/15
	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8025/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8025/08
Gold standard metal solution 1000 ppm	HCl 1 mol/l	500 mL	Plastic bottle	J/8028/08
Iron standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8030/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8030/08
Lead standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8035/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8035/08
Lithium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8037/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8037/08
Magnesium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8040/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8040/08
Manganese standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8045/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8045/08
Mercury standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8047/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8047/08
Molybdenum standard metal solution 1000 ppm	HNO ₃ 0.1 mol/l	100 mL	Plastic bottle	J/8050/05
	HNO ₃ 0.1 mol/l	500 mL	Plastic bottle	J/8050/08
Nickel standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8055/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8055/08
Potassium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8060/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8060/08
Selenium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8061/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8061/08
Silicon standard metal solution 1000 ppm	H ₂ O	100 mL	Plastic bottle	J/8062/05
	H ₂ O	500 mL	Plastic bottle	J/8062/08
Silver standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8064/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8064/08
Sodium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8065/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8065/08
Strontium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8166/08
Tellurium standard metal solution 1000 ppm	HCl 20%	100 mL	Plastic bottle	J/8100/05
	HCl 20%	500 mL	Plastic bottle	J/8100/08
Tin standard metal solution 1000 ppm	HCl 1 mol/l	100 mL	Plastic bottle	J/8067/05
	HCl 1 mol/l	500 mL	Plastic bottle	J/8067/08
Titanium standard metal solution 1000 ppm	HCl 2 mol/l	100 mL	Plastic bottle	J/8110/05
	HCl 2 mol/l	500 mL	Plastic bottle	J/8110/08
Tungsten standard metal solution 1000 ppm	NH ₃ 0.1 mol/l	100 mL	Plastic bottle	J/8120/05
	NH ₃ 0.1 mol/l	500 mL	Plastic bottle	J/8120/08
Vanadium standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8150/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8150/08
Zinc standard metal solution 1000 ppm	HNO ₃ 1 mol/l	100 mL	Plastic bottle	J/8070/05
	HNO ₃ 1 mol/l	500 mL	Plastic bottle	J/8070/08
Zirconium standard metal solution 1000 ppm	HCl 1 mol/l	500 mL	Plastic bottle	J/8200/08

Fisher Chemical Standard mono-element solution for ICP



Manufactured to a tolerance of $\pm 0.5\%$
All standards are manufactured from Ultra-pure metals/acids
All standards are guaranteed to contain <10 ppm total metal impurities
See alphabetical entry in the main body of this catalogue for full details

designation	packsize	package type	product code	page
Aluminium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8206/08	12
Aluminium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8205/05	12
Antimony standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8215/08	32
Antimony standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8210/05	32
Barium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8221/08	35
Barium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8220/05	35
Boron standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8231/08	41
Boron standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8230/05	41
Cadmium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8236/08	53
Cadmium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8235/05	53
Calcium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8241/08	55
Calcium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8240/05	55
Chromium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8246/08	68
Chromium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8245/05	68
Cobalt standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8251/08	70
Cobalt standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8250/05	71
Copper standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8256/08	72
Copper standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8255/05	73
Iron standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8271/08	131
Iron standard metal solution 10000 ppm	100 mL	Plastic bottle	J/8270/05	131
Lead standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8276/08	143
Lead standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8275/05	143
Lithium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8281/08	147
Lithium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8280/05	147
Magnesium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8286/08	150
Magnesium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8285/05	150
Manganese standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8291/08	155
Manganese standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8290/05	155
Mercury standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8293/08	157
Mercury standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8292/05	157
Molybdenum standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8296/08	169
Molybdenum standard metal solution 10000 ppm	100 mL	Plastic bottle	J/8294/05	169
Nickel standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8297/08	171
Nickel standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8295/05	172
Phosphorus standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8299/08	198
Phosphorus standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8298/05	198
Potassium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8301/08	202
Potassium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8300/05	202
Selenium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8306/08	226
Selenium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8305/05	226
Silver standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8310/08	228
Silver standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8309/05	229
Sodium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8316/08	232
Sodium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8315/05	232
Strontium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8321/08	270
Strontium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8320/05	270
Sulfur standard standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8324/08	274
Sulfur standard standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8323/05	274
Tellurium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8327/08	281
Tin standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8326/08	287
Tin standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8325/05	287
Titanium standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8331/08	289
Titanium standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8330/05	289
Tungsten standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8336/08	298
Zinc standard metal solution 1000 ppm	500 mL	Plastic bottle	J/8341/08	306
Zinc standard metal solution 10 000 ppm	100 mL	Plastic bottle	J/8340/05	306

SPEX Standard mono-element solution for ICP & ICP-MS



NIST Certified, manufactured to a tolerance of $\pm 0.5\%$
 All standards are manufactured from Ultra-pure metals/salts
 Actual measured impurities of up to 30 elements
 See alphabetical entry in the main body of this catalogue for full details

designation	matrix	packsize	package type	product code
Aluminium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLAL22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLAL22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLAL22X
Aluminium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLAL12X
Aluminium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLAL23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLAL23X
Aluminium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLAL13X
Aluminium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLAL22Y
Antimony standard metal solution 1000 ppm	for ICP-MS solution in H ₂ O/0.6% Tartaric Acid/HNO ₃ trace	100 mL	Plastic bottle	SPCLSB72Y
	for ICP solution in H ₂ O/0.6% Tartaric Acid/HNO ₃ trace	100 mL	Plastic bottle	SPPLSB72Y
	for ICP solution in H ₂ O/0.6% Tartaric Acid/HNO ₃ trace	250 mL	Plastic bottle	SPPLSB72T
	for ICP solution in H ₂ O/0.6% Tartaric Acid/HNO ₃ trace	500 mL	Plastic bottle	SPPLSB72X
Antimony standard metal solution 10 000 ppm	for ICP solution in H ₂ O/0.6% Tartaric Acid/HNO ₃ trace	100 mL	Plastic bottle	SPPLSB73Y
	for ICP solution in H ₂ O/0.6% Tartaric Acid/HNO ₃ trace	500 mL	Plastic bottle	SPPLSB73X
Antimony standard metal solution 10 000 ppm	for ICP solution in HCL 20%	500 mL	Plastic bottle	SPPLSB53X
Arsenic standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLAS22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLAS22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLAS22X
Arsenic standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLAS12X
Arsenic standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLAS23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLAS23X
Arsenic standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLAS22Y
Barium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLBA22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLBA22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLBA22X
Barium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLBA12X
Barium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLBA23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLBA23X
Barium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLBA22Y
Beryllium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLBE22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLBE22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLBE22X
Beryllium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLBE23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLBE23X
Beryllium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLBE22Y
Bismuth standard metal solution 1000 ppm	for ICP solution in HNO ₃ 10%	100 mL	Plastic bottle	SPPLBI42Y
	for ICP solution in HNO ₃ 10%	500 mL	Plastic bottle	SPPLBI42X
Bismuth standard metal solution 10 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLBI21AY
Boron standard metal solution 1000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLB92Y
	for ICP solution in H ₂ O	250 mL	Plastic bottle	SPPLB92T
	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLB92X
Boron standard metal solution 10 000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLB93Y
	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLB93X
Cadmium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCD22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLCD22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLCD22X
Cadmium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLCD12X
Cadmium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLCD23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCD23X
Cadmium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLCD22Y
Calcium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCA22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLCA22T
Calcium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLCA12X
Calcium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLCA23Y
	for ICP solution in HNO ₃ 5%	250 mL	Plastic bottle	SPPLCA23T
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCA23X
Calcium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLCA13X
Calcium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLCA22Y
Carbon standard solution 1000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLC92Y
	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLC92X
Cerium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCE22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLCE22X
Cerium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLCE23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCE23X

SPEX Standard mono-element solution for ICP & ICP-MS

designation	matrix	packsize	package type	product code
Cesium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCS22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLCS22X
Cesium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLCS23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCS23X
Chromium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCR22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLCR22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLCR22X
Chromium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLCR12X
Chromium standard metal solution 1000 ppm	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLCR92X
Chromium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCR23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCR23X
Chromium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLCR13X
Chromium standard metal solution 10 000 ppm	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLCR93X
Chromium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLCR22Y
Cobalt standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCO22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLCO22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLCO22X
Cobalt standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLCO12X
Cobalt standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLCO23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCO23X
Cobalt standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLCO22Y
Copper standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLCU22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLCU22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLCU22X
Copper standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLCU12X
Copper standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLCU23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLCU23X
Copper standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLCU13X
Copper standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLCU22Y
Dysprosium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLDY22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLDY22X
Erbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLER22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLER22X
Erbium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLER23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLER23X
Europium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLEU22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLEU22X
Gadolinium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLGD22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLGD22X
Gadolinium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLGD23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLGD23X
Gallium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLGA22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLGA22X
Germanium standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLGE92Y
	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLGE92X
Germanium standard metal solution 10 ppm	for ICP-MS solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPCLGE91AY
Gold standard metal solution 1000 ppm	for ICP solution in HCL 10%	100 mL	Plastic bottle	SPPLAU32Y
	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLAU32X
Gold standard metal solution 1000 ppm	for ICP-MS solution in HCL 2%	100 mL	Plastic bottle	SPCLAU11Y
Hafnium standard metal solution 1000 ppm	for ICP solution in HCL 2%	100 mL	Plastic bottle	SPPLHF12Y
	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLHF12X
Hafnium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	100 mL	Plastic bottle	SPPLHF13Y
	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLHF13X
Holmium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLHO22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLHO22X
Indium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLIN22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLIN22X
Indium standard metal solution 10 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLIN21AY
Iridium standard metal solution 1000 ppm	for ICP solution in HCL 10%	100 mL	Plastic bottle	SPPLIR32Y
	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLIR32X
Iron standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLFE22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLFE22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLFE22X
Iron standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLFE12X
Iron standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLFE23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLFE23X
Iron standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLFE13X
Iron standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLFE22Y

SPEX Standard mono-element solution for ICP & ICP-MS

designation	matrix	packsize	package type	product code
Lanthanum standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPLLA22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPLLA22X
Lanthanum standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPLLA23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPLLA23X
Lead standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLB22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLB22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLB22X
Lead standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLB23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLB23X
Lead standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLPB22Y
Lithium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPLLI22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPLLI22X
Lithium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPLLI12X
Lithium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPLLI23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPLLI23X
Lithium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPLLI13X
Lutetium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPLLU22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPLLU22X
Magnesium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLMG22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLMG22T
Magnesium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLMG12X
Magnesium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLMG23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLMG23X
Magnesium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLMG13X
Magnesium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLMG22Y
Manganese standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLMN22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLMN22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLMN22X
Manganese standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLMN23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLMN23X
Manganese standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLMN22Y
Mercury standard metal solution 10 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLHG21AY
	for ICP solution in HNO ₃ 10%	100 mL	Plastic bottle	SPPLHG42Y
	for ICP solution in HNO ₃ 10%	250 mL	Plastic bottle	SPPLHG42T
Mercury standard metal solution 10 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLHG21AX
Mercury standard metal solution 100 ppm	for ICP solution in HNO ₃ 2%		Plastic bottle	SPPLHG21X
Mercury standard metal solution 1000 ppm	for ICP solution in HNO ₃ 10%	500 mL	Plastic bottle	SPPLHG42X
Mercury standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 10%	100 mL	Plastic bottle	SPPLHG43Y
	for ICP solution in HNO ₃ 10%	500 mL	Plastic bottle	SPPLHG43X
Mercury standard metal solution 10 ppm	for ICP-MS solution in HNO ₃ 5%	100 mL	Plastic bottle	SPCLHG21AY
Molybdenum standard metal solution 1000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLMO92Y
	for ICP solution in H ₂ O	250 mL	Plastic bottle	SPPLMO92T
	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLMO92X
Molybdenum standard metal solution 10 000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLMO93Y
	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLMO93X
Molybdenum standard metal solution 1000 ppm	for ICP-MS solution in H ₂ O	100 mL	Plastic bottle	SPCLMO92Y
Neodymium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLND22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLND22X
Nickel standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLNI22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLNI22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLNI22X
Nickel standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLNI23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLNI23X
Nickel standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLNI22Y
Niobium standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLNB92Y
	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLNB92X
Niobium standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLNB93Y
	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLNB93X
Palladium standard metal solution 1000 ppm	for ICP solution in HCL 10%	100 mL	Plastic bottle	SPPLPD32Y
	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLPD32X
Phosphorus standard metal solution 1000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLP92Y
	for ICP solution in H ₂ O	250 mL	Plastic bottle	SPPLP92T
Phosphorus standard metal solution 10 000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLP93Y
	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLP93X
Platinum standard metal solution 1000 ppm	for ICP solution in HCL 10%	100 mL	Plastic bottle	SPPLPT32Y
	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLPT32X
Potassium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLK22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLK22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLK22X

SPEX Standard mono-element solution for ICP & ICP-MS

designation	matrix	packsize	package type	product code
Potassium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLK12X
Potassium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLK23Y
Potassium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLK23X
Potassium standard metal solution 10 000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLK13X
Potassium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLK22Y
Praseodymium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLPR22Y
Praseodymium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLPR22X
Rhenium standard metal solution 1000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLRE92Y
Rhenium standard metal solution 1000 ppm	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLRE92X
Rhodium standard metal solution 1000 ppm	for ICP solution in HCL 10%	100 mL	Plastic bottle	SPPLRH32Y
Rhodium standard metal solution 1000 ppm	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLRH32X
Rhodium standard metal solution 10 ppm	for ICP-MS solution in HCL 2%	100 mL	Plastic bottle	SPCLR11AY
Rubidium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLRB22Y
Rubidium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLRB22X
Rubidium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLRB23Y
Rubidium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLRB23X
Ruthenium standard metal solution 1000 ppm	for ICP solution in HCL 10%	100 mL	Plastic bottle	SPPLRU32Y
Ruthenium standard metal solution 1000 ppm	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLRU32X
Samarium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLSM22Y
Samarium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLSM22X
Scandium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLSC22Y
Scandium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLSC22T
Scandium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLSC22X
Scandium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLSC23Y
Scandium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLSC23X
Scandium standard metal solution 10 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLSC21AY
Selenium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLSE22Y
Selenium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLSE22T
Selenium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLSE22X
Selenium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLSE23Y
Selenium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLSE23X
Selenium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLSE22Y
Silicon standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLSI92Y
Silicon standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	250 mL	Plastic bottle	SPPLSI92T
Silicon standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLSI92X
Silicon standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLSI93Y
Silicon standard metal solution 10 000 ppm	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLSI9A3X
Silicon standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLSI93X
Silver standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLAG22Y
Silver standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLAG22T
Silver standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLAG22X
Silver standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLAG23Y
Silver standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLAG23X
Silver standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLAG22Y
Sodium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLNA22Y
Sodium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLNA22T
Sodium standard metal solution 1000 ppm	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLNA22X
Sodium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLNA12X
Sodium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLNA23Y
Sodium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLNA23X
Sodium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLNA13X
Sodium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLNA22Y
Strontium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLSR22Y
Strontium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLSR22T
Strontium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLSR22X
Strontium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLSR12X
Strontium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLSR23Y
Strontium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLSR23X
Strontium standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLSR13X
Sulfur standard metal solution 1000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLS92Y
Sulfur standard metal solution 1000 ppm	for ICP solution in H ₂ O	250 mL	Plastic bottle	SPPLS92T
Sulfur standard metal solution 1000 ppm	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLS92X
Sulfur standard metal solution 10 000 ppm	for ICP solution in H ₂ O	100 mL	Plastic bottle	SPPLS93Y
Sulfur standard metal solution 10 000 ppm	for ICP solution in H ₂ O	500 mL	Plastic bottle	SPPLS93X
Tantalum standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLTA92Y
Tantalum standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLTA92X
Tantalum standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLTA93Y
Tantalum standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLTA93X

SPEX Standard mono-element solution for ICP & ICP-MS

designation	matrix	packsize	package type	product code
Tellurium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPLTE22Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPLTE22X
Tellurium standard metal solution 1000 ppm	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPLTE32X
Tellurium standard metal solution 10 000 ppm	for ICP solution in HCL 40%	500 mL	Plastic bottle	SPLTE53X
Terbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPLTB22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPLTB22X
Terbium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPLTB23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPLTB23X
Terbium standard metal solution 10 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLTB21AY
Thallium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLTL22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLTL22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLTL22X
Thallium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLTL23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLTL23X
Thallium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLTL22Y
Thorium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLTH22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLTH22X
Thorium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLTH22Y
Thulium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLTM22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLTM22X
Tin standard metal solution 1000 ppm	for ICP solution in HNO ₃ 1%/HF 1%	500 mL	Plastic bottle	SPPLSN22X
	for ICP solution in HCL 20%	100 mL	Plastic bottle	SPPLSN52Y
	for ICP solution in HCL 20%	250 mL	Plastic bottle	SPPLSN52T
Tin standard metal solution 1000 ppm	for ICP solution in HCL 20%	500 mL	Plastic bottle	SPPLSN52X
	for ICP solution in HNO ₃ 2%/HF 2%	500 mL	Plastic bottle	SPPLSN23X
	for ICP solution in HCL 20%	100 mL	Plastic bottle	SPPLSN53Y
Tin standard metal solution 10 000 ppm	for ICP solution in HCL 20%	500 mL	Plastic bottle	SPPLSN53X
Tin standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 1%/HF 1%	100 mL	Plastic bottle	SPCLSN22Y
Titanium standard metal solution 1000 ppm	for ICP solution in HCL 20%	500 mL	Plastic bottle	SPPLTI52X
	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLTI92Y
	for ICP solution in H ₂ O/HF trace	250 mL	Plastic bottle	SPPLTI92T
Titanium standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLTI92X
	for ICP solution in HCL 40%	500 mL	Plastic bottle	SPPLTI53X
Titanium standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLTI93Y
	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLTI93X
Titanium standard metal solution 1000 ppm	for ICP-MS solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPCLTI92Y
Tungsten standard metal solution 1000 ppm	for ICP solution in HNO ₃ 1%/HF 2%	500 mL	Plastic bottle	SPPLW22X
Tungsten standard metal solution 1000 ppm	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLW92Y
Tungsten standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 2%/HF 5%	500 mL	Plastic bottle	SPPLW23X
	for ICP solution in H ₂ O/HF trace	100 mL	Plastic bottle	SPPLW93Y
Tungsten standard metal solution 10 000 ppm	for ICP solution in H ₂ O/HF trace	500 mL	Plastic bottle	SPPLW93X
	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLU22Y
Uranium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLU22X
	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLU23Y
Uranium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLU23X
Uranium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLU22Y
Vanadium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLV22Y
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLV22X
Vanadium standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLV12X
Vanadium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 15%	100 mL	Plastic bottle	SPPLV43Y
	for ICP solution in HNO ₃ 15%	500 mL	Plastic bottle	SPPLV43X
Vanadium standard metal solution 10 000 ppm	for ICP solution in HCL 15%	500 mL	Plastic bottle	SPPLV33X
Vanadium standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLV22Y
Water Blank	for ICP-MS	100 mL	Plastic bottle	SPCLBLKH2O
Water blank in HCL 2%	for ICP-MS	100 mL	Plastic bottle	SPCLBLKHCL
Water blank in HNO ₃ 2%	for ICP-MS	100 mL	Plastic bottle	SPCLBLKHNO3
Water blank in HCL 5%	for ICP	500 mL	Plastic bottle	SPPLBLKHCL
Water blank in HNO ₃ 5%	for ICP	500 mL	Plastic bottle	SPPLBLKHNO3
Ytterbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLY22Y
Ytterbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLYB22Y
Ytterbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLY22T
Ytterbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLYB22X
Ytterbium standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLY22X
Ytterbium standard metal solution 10 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLY21AY
Yttrium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLY23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLY23X
Zinc standard metal solution 1000 ppm	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLZN22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLZN22T

SPEX Standard mono-element solution for ICP & ICP-MS

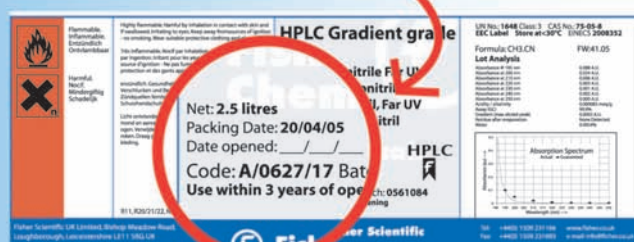
designation	matrix	packsize	package type	product code
Zinc standard metal solution 1000 ppm	for ICP solution in HCL 2%	500 mL	Plastic bottle	SPPLZN12X
Zinc standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLZN23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLZN23X
Zinc standard metal solution 10 000 ppm	for ICP solution in HCL 5%	500 mL	Plastic bottle	SPPLZN13X
Zinc standard metal solution 1000 ppm	for ICP-MS solution in HNO ₃ 2%	100 mL	Plastic bottle	SPCLZN22Y
	for ICP solution in HNO ₃ 2%	100 mL	Plastic bottle	SPPLZR22Y
	for ICP solution in HNO ₃ 2%	250 mL	Plastic bottle	SPPLZR22T
	for ICP solution in HNO ₃ 2%	500 mL	Plastic bottle	SPPLZR22X
Zirconium standard metal solution 1000 ppm	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLZR32X
Zirconium standard metal solution 10 000 ppm	for ICP solution in HNO ₃ 5%	100 mL	Plastic bottle	SPPLZR23Y
	for ICP solution in HNO ₃ 5%	500 mL	Plastic bottle	SPPLZR23X
Zirconium standard metal solution 10 000 ppm	for ICP solution in HCL 10%	500 mL	Plastic bottle	SPPLZR33X

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A full range of Mono & Multi-elemental standard and Calibration solution for ICP & ICP-MS
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SPEX Standard Instrument check, Calibration & Multi-element solution for ICP & ICP-MS



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designation	Content	Matrix	Application	packsize	Product code	HTE/1
Standard Instrument check 3	100µg/ml K, P & S; 20µg/ml As, La, Li, Mn, Mo, Na, Ni & Sc	5% HCl	for ICP	100 ml	SPCALMIX3100	
				500 ml	SPCALMIX3500	
Standard Instrument check 4	50µg/ml K; 10µg/ml Al, As, Cu, Mn, Na, Ni, P, Pb, Sc & Zn; 1µg/ml Ba	2% HNO3	for ICP	100 ml	SPCALMIX4100	
				500 ml	SPCALMIX4500	
Standard Instrument check 7	600µg/ml Y; 100µg/ml Al, As, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb & Zn	2% HNO3	for ICP	100 ml	SPCALMIX7100	
				500 ml	SPCALMIX7500	
Standard Instrument check 8	50µg/ml Al, As, Co, Cr, Cu, K, Na, P & Pb	2% HNO3	for ICP	100 ml	SPCALMIX8100	
				500 ml	SPCALMIX8500	
Standard Instrument check 10	500µg/ml K; 50µg/ml Al, Ba, Cd, Cu, Mn & Zn	2% HNO3	for ICP	100 ml	SPCALMIX10100	
				500 ml	SPCALMIX10500	
Standard Plasma emission Kit 1 (38 elements)	Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Na, Ni, Pb, Sc, Se, Sr, Ti, V, Y, Zn & Zr	2% HNO3	for ICP	kit contains 100 ml of each element listed at 1000µg/ml in the matrix specified	SPICPKIT1	
	Bi & Hg	10% HNO3				
	Sn	20% HCl				
	B, Mo, P, S & W	H2O				
	Sb	H2O / 0,6% Tartric acid/ Tr.HNO3				
	Nb, Si & Ti	H2O / F-				
Standard Plasma emission Kit 2 (13 elements)	Ag, As, Be, Cd, Cr, Cu, Ni, Pb, Se, Ti & Zn	2% HNO3	for ICP	kit contains 100 ml of each element listed at 1000µg/ml in the matrix specified	SPICPKIT2	
	Hg	10% HNO3				
	Sb	H2O / 0,6% Tartric acid/ Tr.HNO3				
Standard Plasma emission Kit 3 (10 elements)	Al, Ba, Ca, Co, Fe, K, Mg, Mn, Na & V	2% HNO3	for ICP	kit contains 100 ml of each element listed at 1000µg/ml in the matrix specified	SPICPKIT3	
Standard Plasma emission Kit 4 (15 elements)	Li, Sc, Sr, Y & Zr	2% HNO3	for ICP	kit contains 100 ml of each element listed at 1000µg/ml in the matrix specified	SPICPKIT4	
	Bi	10% HNO3				
	Sn	20% HCl				
	B, Mo, P, S & W	H2O				
	Nb, Si & Ti	H2O / F-				
Standard 1 Mixed Multi-element calibration	500µg/ml Pb ;200µg/ml Se ; 150µg/ml Cd & Zn; 100µg/ml Mn ; 50µg/ml Be	2% HNO3	for ICP	100 ml	SPMIXSTD1100	
				500 ml	SPMIXSTD1500	
Standard 1A Mixed Multi-element calibration	100µg/ml As & Ca; 50µg/ml Sb & Se; 20µg/ml Cd, Cu & Mn; 10µg/ml Ba & B; 5 µg/ml Ag	5% HNO3	for ICP	100 ml	SPMIXSTD1A100	
				500 ml	SPMIXSTD1A500	
Standard 2 Mixed Multi-element calibration	10 000µg/ml Fe; 100 µg/ml Ba,Co,Cu & V	5% HNO3	for ICP	100 ml	SPMIXSTD2100	
				500 ml	SPMIXSTD2500	
Standard 2A Mixed Multi-element calibration	200µg/ml K; 100µg/ml Mo & Na; 50µg/ml Li; 10µg/ml Sr	5% HNO3	for ICP	100 ml	SPMIXSTD2A100	
				500 ml	SPMIXSTD2A500	
Standard 3 Mixed Multi-element calibration	500µg/ml As; 100µg/ml Mo & Si	2% HNO3 /Tr. HF	for ICP	100 ml	SPMIXSTD3100	
				500 ml	SPMIXSTD3500	
Standard 3A Mixed Multi-element calibration	100µg/ml P; 20µg/ml Co,V & Ce	5% HNO3	for ICP	100 ml	SPMIXSTD3A100	
				500 ml	SPMIXSTD3A500	
Standard 4 Mixed Multi-element calibration	1000µg/ml Ca; 400µg/ml K; 200µg/ml Al & Na; 20µg/ml Cr & Ni	5% HNO3	for ICP	100 ml	SPMIXSTD4100	
				500 ml	SPMIXSTD4500	
Standard 4A Mixed Multi-element calibration	100µg/ml Al, Hg, SiO2 & Ti; 50µg/ml Cr & Zn; 40µg/ml Sn	5% HNO3 /Tr. HF	for ICP	100 ml	SPMIXSTD4A100	
				500 ml	SPMIXSTD4A500	
Standard 5 Mixed Multi-element calibration	1000µg/ml Mg; 200µg/ml Sb & Ti; 100µg/ml B; 50µg/ml Ag	5% HNO3 /Tr. Tartric acid/Tr. HF	for ICP	100 ml	SPMIXSTD5100	
				500 ml	SPMIXSTD5500	
Standard 5A Mixed Multi-element calibration	100µg/ml Se,Mg & Pb; 50µg/ml Ti; 20µg/ml Ni; 10µg/ml Be	5% HNO3	for ICP	100 ml	SPMIXSTD5A100	
				500 ml	SPMIXSTD5A500	
Standard Instrument Calibration 1	20µg/ml :Al, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Ce, Th, Ti, U, V & Zn	5% HNO3 /Tr. Tartric acid	for ICP-MS	100 ml	SPCLCAL1	

SPEX Standard Instrument check, Calibration & Multi-element solution for ICP & ICP-MS



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designation	Content	Matrix	Application	packsize	Product code	HT€/1
Standard Instrument Calibration 2	100µg/ml : Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V & Zn	5% HNO ₃ /Tr. Tartric acid/Tr. HF	for ICP-MS	100 ml	SPCLCAL2	
Standard Instrument Calibration 3	1000µg/ml : Fe, K, Ca, Na & Mg	5% HNO ₃ /Tr. Tartric acid	for ICP-MS	100 ml	SPCLCAL3	
Standard 1 solution Multi-element	10µg/ml : Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Th, Tm, Y & Yb	5% HNO ₃	for ICP-MS	100 ml	SPCLMS1	
Standard 2 solution Multi-element	10µg/ml : Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Hg, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V & Zn	5% HNO ₃	for ICP-MS	100 ml	SPCLMS2	
Standard 2 solution Multi-element (no Hg)	10µg/ml : Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, In, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V & Zn	5% HNO ₃	for ICP-MS	100 ml	SPCLMS2N	
Standard 2A solution Multi-element	10µg/ml : Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Hg, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V & Zn	5% HNO ₃	for ICP-MS	100 ml	SPCLMS2A	
Standard 2A solution Multi-element (no Hg)	10µg/ml : Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V & Zn	5% HNO ₃	for ICP-MS	100 ml	SPCLMS2AN	
Standard 3 solution Multi-element	10µg/ml : Au, Hf, Ir, Pd, Pt, Rh, Ru, Sb, Sn & Te	10% HCl / 1 HNO ₃	for ICP-MS	100 ml	SPCLMS3	
Standard 4 solution Multi-element	10µg/ml : B, Ge, Mo, Nb, P, Re, S, Si, Ta, Ti, W & Zr	H ₂ O / Tr.HF	for ICP-MS	100 ml	SPCLMS4	
Standard 5 solution Multi-element	10µg/ml : Be, Bi, Ce, Co, In, Mg, Ni, Pb & U	2% HNO ₃	for ICP-MS	100 ml	SPCLMS5	
Standard Set of 7 Multi-element solution	SPCLMS1, SPCLMS2, SPCLMS3, SPCLMS4, SPCLBLKHNO ₃ , SPCLBLKHCl & SPCLBLKH ₂ O		for ICP-MS		SPCLMSSET	
Standard Set of 7 Multi-element solution (no Hg)	SPCLMS1, SPCLMS2N, SPCLMS3, SPCLMS4, SPCLBLKHNO ₃ , SPCLBLKHCl & SPCLBLKH ₂ O		for ICP-MS		SPCLMSSETN	
Standard Tuning solution 1	10µg/ml Ba, Be, Ce, Co, In, Li, Mg, Pb, Rh, Tl, U & Y	2% HNO ₃ / 5% HCl	for ICP-MS	100 ml	SPCLTUNE1	

Standard solutions Ready to use for volumetric analysis **NEW SPEC.**

designation	comment	NIST	tolerance	packsize	package type	product code	page
Ammonium iron (II) sulfate solution 0.1M (0.1N)		●	± 0.005	1 L	Glass bottle	J/1101/15	27
		●	± 0.005	2.5 L	Plastic bottle	J/1101/PB17	27
Ammonium iron(II) sulfate solution 0.025M			± 0.005	2.5 L	Glass bottle	J/1100/17	27
Ammonium thiocyanate solution 0.1M (0.1N)	Eur.Ph. , USP, BP	●	± 0.002	1 L	Plastic bottle	J/1500/PB15	30
	Eur.Ph. , USP, BP	●	± 0.002	2.5 L	Plastic bottle	J/1500/PB17	30
Cerium(IV) sulfate solution 0.1, (0.1N)	Eur.Ph. , BP	●	± 0.002	1 L	Glass bottle	J/3000/15	61
Cerium(IV) sulfate solution 0.1M (0.1N)	Eur.Ph. , BP	●	± 0.002	2.5 L	Glass bottle	J/3000/17	61
Ethylenediaminetetraacetic acid disodium salt solution 0.01M (0.02N)			± 0.003	1 L	Plastic bottle	J/3720/PB15	101
		●	± 0.003	2.5 L	Plastic bottle	J/3720/17	101
Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N)	Eur.Ph. , BP	●	± 0.001	1 L	Plastic bottle	J/3700/15	101
	Eur.Ph. , BP	●	± 0.001	2.5 L	Plastic bottle	J/3700/17	101
	Eur.Ph. , BP	●	± 0.001	10 L	Cubitainer	J/3700/24	101
Hydrochloric acid solution 0.02M (0.02N)		●	± 0.003	1 L	Plastic bottle	J/4360/PB15	120
		●	± 0.003	2.5 L	Plastic bottle	J/4360/17	120
Hydrochloric acid solution 0.1M (0.1N)	Eur.Ph. , BP	●	± 0.001	1 L	Plastic bottle	J/4350/15	120
	Eur.Ph. , BP	●	± 0.001	2.5 L	Plastic bottle	J/4350/17	120
	Eur.Ph. , BP	●	± 0.001	5 L	Plastic bottle	J/4350/21	120
	Eur.Ph. , BP	●	± 0.001	10 L	Cubitainer	J/4350/24	120
Hydrochloric acid solution 0.2M (0.2N)		●	± 0.001	1 L	Plastic bottle	J/4340/15	121
		●	± 0.001	2.5 L	Plastic bottle	J/4340/17	121
Hydrochloric acid solution 0.5M (0.5N)		●	± 0.001	1 L	Plastic bottle	J/4330/15	121
		●	± 0.001	2.5 L	Plastic bottle	J/4330/17	121
		●	± 0.001	25 L	Metal drum	J/4330/25	121
Hydrochloric acid solution 1M (1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Plastic bottle	J/4320/15	121
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Plastic bottle	J/4320/17	121
	Eur.Ph. , USP, BP	●	± 0.001	5 L	Plastic bottle	J/4320/21	121
	Eur.Ph. , USP, BP	●	± 0.001	10 L	Cubitainer	J/4320/24	121
Hydrochloric acid solution 2M (2N)	Eur.Ph. , BP	●	± 0.001	1 L	Plastic bottle	J/4315/15	121
	Eur.Ph. , BP	●	± 0.001	2.5 L	Plastic bottle	J/4315/17	121
Hydrochloric acid solution 5M (5N)			± 0.005	1 L	Plastic bottle	J/4310/15	121
			± 0.005	2.5 L	Plastic bottle	J/4310/17	121
Iodine solution 0.05M (0.1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Glass bottle	J/4410/15	130
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Glass bottle	J/4410/17	130
Iodine solution 0.5M (1N)	Eur.Ph. , BP	●	± 0.002	1 L	Coated Glass Bottle	J/4400/PB15	130
	Eur.Ph. , BP	●	± 0.002	2.5 L	Coated Glass Bottle	J/4400/PB17	130
	Eur.Ph. , BP	●	± 0.002	500 mL	Coated Glass Bottle	J/4400/PB08	130
Nitric acid solution 2M (2N)		●	± 0.005	2.5 L	Plastic bottle	J/5545/PB17	177
Nitric acid solution 0.1M (0.1N)		●	± 0.001	1 L	Plastic bottle	J/5600/PB15	177
		●	± 0.001	2.5 L	Plastic bottle	J/5600/17	177
Nitric acid solution 1M (1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Plastic bottle	J/5550/PB15	177
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Plastic bottle	J/5550/PB17	177
	Eur.Ph. , USP, BP	●	± 0.001	10 L	Cubitainer	J/5550/24	177
Perchloric acid solution 0.1M (0.1N)		●	± 0.002	1 L	Plastic bottle	J/5820/PB15	187
		●	± 0.002	2.5 L	Plastic bottle	J/5820/PB17	187
Potassium bromate-bromide solution 0.0167 M (0.1N)		●	± 0.001	1 L	Glass bottle	J/6100/15	203
		●	± 0.001	2.5 L	Glass bottle	J/6100/17	203
Potassium dichromate solution 0.0167M (0.1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Glass bottle	J/6212/15	207
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Glass bottle	J/6212/17	207
Potassium hydroxide solution 0.1M (0.1N), (in methanol)	Eur.Ph. , BP	●	± 0.005	1 L	Glass bottle	J/6625/15	211
Potassium hydroxide solution 0.1M (0.1N), (in ethanol)		●	± 0.002	1 L	Plastic bottle	J/6620/15	212
		●	± 0.002	2.5 L	Plastic bottle	J/6620/17	212
Potassium hydroxide solution 0.5M (0.5N), (in ethanol)		●	± 0.002	1 L	Plastic bottle	J/6612/15	212
		●	± 0.002	2.5 L	Plastic bottle	J/6612/17	212
Potassium hydroxide solution 1M (1N)	Eur.Ph. , BP	●	± 0.001	1 L	Plastic bottle	J/6630/PB15	212
	Eur.Ph. , BP	●	± 0.001	2.5 L	Plastic bottle	J/6630/17	212
Potassium hydroxide solution 1M (1N), (alcoholic)		●	± 0.001	1 L	Plastic bottle	J/6610/15	212
		●	± 0.001	2.5 L	Plastic bottle	J/6610/17	212
Potassium iodate 0.025M solution stabilized with 10 ppm mercury(II) chloride		●	± 0.001	2.5 L	Glass bottle	J/6700/17	213
Potassium iodate 0.05M solution stabilized with 10 ppm mercury(II) chloride	Eur.Ph. , USP, BP	●	± 0.001	1 L	Glass bottle	J/6690/15	213
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Glass bottle	J/6690/17	213
Potassium permanganate solution 0.02M (0.1N)		●	± 0.001	1 L	Glass bottle	J/6900/15	215
		●	± 0.001	2.5 L	Coated Glass Bottle	J/6900/PB17	215

Standard solutions Ready to use for volumetric analysis **NEW SPEC.**

designation	comment	NIST	tolerance	packsize	package type	product code	page
Potassium thiocyanate solution 0.1M (0.1N)		●	± 0.002	1 L	Glass bottle	J/7050/15	218
		●	± 0.002	2.5 L	Plastic bottle	J/7050/PB17	218
Silver nitrate solution 1M (1N)			± 0.001	1 L	Plastic bottle	J/7320/PB15	230
			± 0.001	2.5 L	Plastic bottle	J/7320/PB17	230
Silver nitrate solution 0.1M (0.1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Plastic bottle	J/7330/15	230
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Plastic bottle	J/7330/17	230
	Eur.Ph. , USP, BP	●	± 0.001	10 L	Cubitainer	J/7330/24	230
Silver nitrate solution 0.05M (0.05N)		●	± 0.002	1 L	Plastic bottle	J/7340/15	230
		●	± 0.002	2.5 L	Plastic bottle	J/7340/17	230
Silver nitrate solution 0.0282M (0.0282N)		●	± 0.003	1 L	Plastic bottle	J/7370/15	230
		●	± 0.003	2.5 L	Plastic bottle	J/7370/17	230
		●	± 0.003	250 mL	Glass bottle	J/7370/07	230
Silver nitrate solution 0.02M (0.02N)		●	± 0.003	1 L	Plastic bottle	J/7350/15	231
		●	± 0.003	2.5 L	Plastic bottle	J/7350/17	231
Sodium arsenite solution 0.05M (0.1N)		●	± 0.002	1 L	Plastic bottle	J/7510/PB15	234
		●	± 0.002	2.5 L	Plastic bottle	J/7510/PB17	234
Sodium carbonate solution 0.05M (0.1N)		●	± 0.001	1 L	Plastic bottle	J/7580/PB15	236
		●	± 0.001	2.5 L	Plastic bottle	J/7580/17	236
Sodium carbonate solution 0.5M (1N)		●	± 0.001	1 L	Plastic bottle	J/7520/PB15	237
		●	± 0.001	2.5 L	Plastic bottle	J/7520/17	237
Sodium hydroxide solution 10M (10N) ca. 40w/v			± 0.005	1 L	Plastic bottle	J/7800/15	246
			± 0.005	2.5 L	Plastic bottle	J/7800/17	246
			± 0.005	5 L	Plastic bottle	J/7800/21	246
			± 0.005	10 L	Cubitainer	J/7800/24	246
			± 0.005	25 L	Metal drum	J/7800/25	246
Sodium hydroxide solution 2M (2N)	BP	●	± 0.001	1 L	Plastic bottle	J/7610/PB15	246
	BP	●	± 0.001	2.5 L	Plastic bottle	J/7610/17	246
	BP	●	± 0.001	5 L	Plastic bottle	J/7610/21	246
Sodium hydroxide solution 1M (1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Plastic bottle	J/7620/15	246
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Plastic bottle	J/7620/17	246
	Eur.Ph. , USP, BP	●	± 0.001	5 L	Plastic bottle	J/7620/21	246
	Eur.Ph. , USP, BP	●	± 0.001	10 L	Cubitainer	J/7620/24	246
Sodium hydroxide solution methanolic 1M (1N)		●	± 0.002	1 L	Plastic bottle	J/7625/PB15	246
		●	± 0.002	2.5 L	Plastic bottle	J/7625/17	246
Sodium hydroxide solution 0.5M (0.5N)		●	± 0.001	1 L	Plastic bottle	J/7630/15	246
		●	± 0.001	2.5 L	Plastic bottle	J/7630/17	246
		●	± 0.001	5 L	Plastic bottle	J/7630/21	246
		●	± 0.001	10 L	Cubitainer	J/7630/24	246
		●	± 0.001	200 L	Metal drum	J/7630/27	246
Sodium hydroxide solution 0.2M (0.2N)		●	± 0.001	1 L	Plastic bottle	J/7640/15	247
		●	± 0.001	2.5 L	Plastic bottle	J/7640/17	247
		●	± 0.001	5 L	Plastic bottle	J/7640/21	247
		●	± 0.001	10 L	Cubitainer	J/7640/24	247
Sodium hydroxide solution 0.1M (0.1N)	Eur.Ph. , BP	●	± 0.001	1 L	Plastic bottle	J/7660/15	247
	Eur.Ph. , BP	●	± 0.001	2.5 L	Plastic bottle	J/7660/17	247
	Eur.Ph. , BP	●	± 0.001	5 L	Plastic bottle	J/7660/21	247
	Eur.Ph. , BP	●	± 0.001	10 L	Cubitainer	J/7660/24	247
Sodium nitrite solution 0.5M (0.5N)		●	± 0.003	1 L	Glass bottle	J/7900/15	250
Sodium thiosulfate solution 0.1M (0.1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Plastic bottle	J/7950/15	255
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Plastic bottle	J/7950/17	255
	Eur.Ph. , USP, BP	●	± 0.001	5 L	Plastic bottle	J/7950/21	255
	Eur.Ph. , USP, BP	●	± 0.001	10 L	Cubitainer	J/7950/24	255
Sulfuric acid solution 1M (2N)		●	± 0.001	1 L	Plastic bottle	J/8420/PB15	277
		●	± 0.001	2.5 L	Plastic bottle	J/8420/17	277
Sulfuric acid solution 0.5M (1N)	Eur.Ph. , USP, BP	●	± 0.001	1 L	Plastic bottle	J/8430/15	277
	Eur.Ph. , USP, BP	●	± 0.001	2.5 L	Plastic bottle	J/8430/17	277
	Eur.Ph. , USP, BP	●	± 0.001	10 L	Cubitainer	J/8430/24	277
Sulfuric acid solution 0.25M (0.5N)		●	± 0.001	1 L	Plastic bottle	J/8440/PB15	277
		●	± 0.001	2.5 L	Plastic bottle	J/8440/17	277
Sulfuric acid solution 0.1M (0.2N)		●	± 0.001	1 L	Plastic bottle	J/8450/15	277
		●	± 0.001	2.5 L	Plastic bottle	J/8450/17	277
		●	± 0.001	10 L	Cubitainer	J/8450/24	277
Sulfuric acid solution 0.05M (0.1N)	Eur.Ph. , BP	●	± 0.001	1 L	Plastic bottle	J/8460/15	277
	Eur.Ph. , BP	●	± 0.001	2.5 L	Plastic bottle	J/8460/17	277
	Eur.Ph. , BP	●	± 0.001	10 L	Cubitainer	J/8460/24	277
Sulfuric acid solution 0.01M (0.2N)		●	± 0.003	1 L	Plastic bottle	J/8470/PB15	277
		●	± 0.003	2.5 L	Plastic bottle	J/8470/17	277
		●	± 0.003	10 L	Cubitainer	J/8470/24	277

Standard solutions Ready to use for volumetric analysis **NEW SPEC.**

designation		packsize	package type	product code	page
Tetra-n-butyl ammonium hydroxide solution 0.1 M (0.1N) in toluene/methanol	± 0.05	1 L	Glass bottle	J/8750/15	282
	± 0.05	2.5 L	Glass bottle	J/8750/17	282
	± 0.05	500 mL	Glass bottle	J/8750/08	282
Titanium(III) chloride solution 0.2M (0.2N)	± 0.1	2.5 L	Glass bottle	J/8780/17	290

NIST Certified Standard from SPEX

A full range of Mono & Multi-elemental standard and Calibration solution for ICP & ICP-MS
Discover them on page 258

**Acids, Bases and Water for Trace Metal analysis**

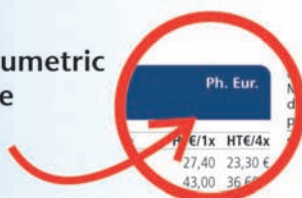
The right grade for the right detection level.
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Read more page 9

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**Use best before information on the label****Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia**

Read more on page 191

**Save money!
Order 4 bottles in a box**

Standard solutions concentrated for volumetric analysis **NEW SPEC.**


designation	making up volume by am- poule	packsize	product code	page
Acetic acid solution 0.1M (0.1N)	1L	1	J/0551C/05	3
		6	J/0551C/90	3
Ammonium thiocyanate solution 0.1M (0.1N)	1L	1	J/1500C/05	30
		6	J/1500C/90	30
Ethylenediaminetetraacetic acid disodium salt solution 0.01M (0.02N)	1L	1	J/3720C/05	101
		6	J/3720C/90	101
Ethylenediaminetetraacetic acid disodium salt solution 0.1M (0.2N)	500 mL	1	J/3700C/05	101
		6	J/3700C/90	101
Hydrochloric acid solution 0.1M (0.1N)	1L	1	J/4350C/05	120
		6	J/4350C/90	120
Hydrochloric acid solution 0.5M (0.5N)	1L	1	J/4330C/05	121
		6	J/4330C/90	121
Hydrochloric acid solution 1M (1N)	1L	1	J/4320C/05	121
		6	J/4320C/90	121
Iodine solution 0.05M (0.1N)	1L	1	J/4410C/05	130
		6	J/4410C/90	130
Nitric acid solution 1M (1N)	1L	1	J/5550C/05	177
		6	J/5550C/90	177
Oxalic acid solution 0.05M (0.1N)	1L	1	J/5650C/05	181
		6	J/5650C/90	181
Potassium bromate-bromide solution 0.0167 M (0.1N)	1L	1	J/6100C/05	203
		6	J/6100C/90	203
Potassium dichromate solution 0.0167M (0.1N)	1L	1	J/6212C/05	207
		6	J/6212C/90	207
Potassium hydroxide solution 0.1M (0.1N)	1L	1	J/6640C/05	212
		6	J/6640C/90	212
Potassium hydroxide solution 1M (1N)	1L	1	J/6630C/05	212
		6	J/6630C/90	212
Potassium permanganate solution 0.02M (0.1N)	1L	1	J/6900C/05	215
		6	J/6900C/90	215
Silver nitrate solution 0.1M (0.1N)	1L	1	J/7330C/05	230
		6	J/7330C/90	230
Sodium carbonate solution 0.05M (0.1N)	1L	1	J/7580C/05	237
		6	J/7580C/90	237
Sodium chloride solution 0.1M (0.1N)	1L	1	J/7590C/05	238
		6	J/7590C/90	238
Sodium hydroxide solution 1M (1N)	1L	1	J/7620C/05	246
		6	J/7620C/90	246
Sodium hydroxide solution 0.5M (0.5N)	1L	1	J/7630C/05	246
		6	J/7630C/90	246
Sodium hydroxide solution 0.1M (0.1N)	1L	1	J/7660C/05	247
		6	J/7660C/90	247
Sodium thiosulfate solution 0.1M (0.1N)	1L	1	J/7950C/05	255
		6	J/7950C/90	255
Sodium thiosulfate solution 0.5M (0.5N)	500 mL	1	J/7951C/05	255
		6	J/7951C/90	255
Sulfuric acid solution 0.05M (0.1N)	1L	1	J/8460C/05	277
		6	J/8460C/90	277
Sulfuric acid solution 0.5M (1N)	1L	1	J/8430C/05	277
		6	J/8430C/90	277
Zinc sulfate solution 0.05M (0.05N)	1L	1	J/8490C/05	309
		6	J/8490C/90	309

Fisher Chemical packaging

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Standard Volumetric solution

NIST Certified & Conform to Pharmacopeia

Read more on page



Stannic chloride See Tin(IV) chloride anhydrous, page 289

Starch
for analysis, soluble

Certified AR



packaging	product code
250 g Plastic jar	S/8000/50
500 g Plastic jar	S/8000/53
1 kg Plastic jar	S/8000/60

(C₆H₁₀O₅)_n EINECS: 232-679-6
CAS: 9005-25-8 Safety: S24/25
HS-Nr: 35051090

Guaranteed analysis

Acidity	<0.01 meq/g	dard ACS)	Conform
Loss on drying	<15%	Sulfated ash	<0.5%
Reducing substance	<0.2%	Total chloride (Cl)	<0.005 %
Sensitivity to iodine (according to stan-			

Lot analysis on the label.

Starch, soluble
extra pure

SLR



packaging	product code
500 g Plastic jar	S/7960/53
1 kg Plastic jar	S/7960/60

(C₆H₁₀O₅)_n EINECS: 232-679-6
CAS: 9005-25-8 Safety: S24/25
HS-Nr: 35051090

Starch, maize
extra pure

SLR



packaging	product code
1 kg Plastic jar	S/7880/60

(C₆H₁₀O₅)_n EINECS: 232-679-6
CAS: 9005-25-8 Safety: S24/25
HS-Nr: 35051090

Starch, potato
extra pure

SLR



packaging	product code
1 kg Plastic jar	S/7920/60

(C₆H₁₀O₅)_n EINECS: 232-679-6
CAS: 9005-25-8 Safety: S24/25
HS-Nr: 35051090

Guaranteed analysis

Loss on drying	<20%	Residue after ignition	<0.5%
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Starch, wheat **NEW SPEC.**
extra pure

SLR



packaging	product code
1 kg Plastic jar	S/8040/60

(C₆H₁₀O₅)_n EINECS: 232-679-6
CAS: 9005-25-8 Risk: R20/21/22
HS-Nr: 35051090

Guaranteed analysis

Residue after ignition	<0.3%	Lead (Pb)	<10 ppm
------------------------	-------	-----------	---------

Stearic acid
extra pure

SLR



packaging	product code
500 g Plastic jar	S/8130/53

C₁₈H₃₆O₂ Flash point: 196°C
CAS: 57-11-4 ADR/RID: 4.1/III
MW: 284.49 UN: 1325
Density at 20°C: 0.84 HS-Nr: 38220000
Boiling point: 361°C EINECS: 200-313-4
Boiling pressure: 760 mmHg Risk: R11, R36/37/38
Melting point: 67 to 69°C Safety: S16, S26, S37/39

Assay: >99%

Stearic anhydride
extra pure

SLR



packaging	product code
100 g Plastic jar	S/8144/48

C₃₆H₇₀O₃ Melting point: 69 to 71°C
CAS: 638-08-4 HS-Nr: 29159000
MW: 550.95 EINECS: 211-318-6
Density at 20°C: 0.84 Safety: S24/25

Assay: >97%

In determining the hydroxyl groups in the alcohol and phenols.
Sully, Analyst, 1962.87.

Strontium standard metal solution 1000 ppm
for AAS, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8166/08

ADR/RID: 8/II Risk: R34
UN: 2031 Safety: S23, S26, S36
HS-Nr: 28342980



Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis
section see page 256.

Strontium standard metal solution 1000 ppm
for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8321/08

UN: 2031
HS-Nr: 38220000
Risk: R34
Safety: S23, S26, S36



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less
than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis
section see page 256.

Strontium standard metal solution 10 000 ppm
for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8320/05

ADR/RID: 8/II Risk: R34
UN: 2031 Safety: S23, S26, S36
HS-Nr: 28342980



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less
than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis
section see page 256.

Strontium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLSR22Y
250 mL Plastic bottle	SPPLSR22T
500 mL Plastic bottle	SPPLSR22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Strontium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLSR12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Strontium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLSR23Y
500 mL Plastic bottle	SPPLSR23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Strontium standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLSR13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Strontium chloride hexahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	S/8280/53

Cl₂Sr.6H₂O
CAS: 10025-70-4
MW: 266.62
Melting point: 115°C
HS-Nr: 28273985
EINECS: 233-971-6
Safety: S24/25

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<1000 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<10 ppm	Sodium (Na)	<500 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<100 ppm

Strontium nitrate anhydrous for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/8402/53

N₂O₆Sr
CAS: 10042-76-9
MW: 211.63
Density at 20°C: 2.99
Boiling point: 645°C
Boiling pressure: 760 mmHg
Melting point: 570°C
ADR/RID: 5.1/III
UN: 1507
HS-Nr: 28342980
EINECS: 233-131-9
Risk: R8, R22
Safety: S17



Assay: >99.5%

Guaranteed analysis

pH (aqueous solution 5%)	5 to 7	Manganese (Mn)	<5 ppm
Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<0.2%	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Potassium (K)	<54 ppm
Calcium (Ca)	<500 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Sodium (Na)	<50 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<5 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<2.4 ppm	Total sulphur (S)	<50 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<20 ppm

Strontium nitrate anhydrous extra pure

SLR



packaging	product code
500 g Plastic jar	S/8400/53

N₂O₆Sr
CAS: 10042-76-9
MW: 211.63
Density at 20°C: 2.99
Boiling point: 645°C
Boiling pressure: 760 mmHg
Melting point: 570°C
ADR/RID: 5.1/III
UN: 1507
HS-Nr: 28342980
EINECS: 233-131-9
Risk: R8, R22
Safety: S17



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<1000 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.01%
Iron (Fe)	<20 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<10 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<100 ppm
Potassium (K)	<200 ppm		

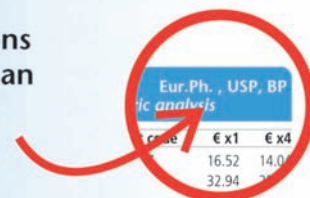
Standard Volumetric solution

NIST Certified & Conform
to Pharmacopeia
Read more on page 266



The ready to use solutions
comply with the European
Pharmacopeia

Discover them
at page 266



Styrene stabilized with 10-15 ppm tert-butylcatechol pure

packaging	product code
1 L Glass bottle	S/8480/15
2.5 L Glass bottle	S/8480/17

C_8H_8
CAS: 100-42-5
MW: 104.15
Density at 20°C: 0.904 to 0.906
Boiling point: 145 to 146°C
Boiling pressure: 760 mmHg
Melting point: -31°C

Flash point: 31°C
ADR/RID: 3/III
UN: 2055
HS-Nr: 29025000
EINECS: 202-851-5
Risk: R10, R20, R36/38
Safety: S23

Xn

Succinic acid for analysis Certified AR

packaging	product code
250 g Plastic jar	S/8522/50
10 kg Plastic drum	S/8522/68

$C_4H_6O_4$
CAS: 110-15-6
MW: 118.09
Boiling point: 235°C
Boiling pressure: 760 mmHg
Melting point: 185 to 190°C

Flash point: 206°C
HS-Nr: 29171990
EINECS: 203-740-4
Risk: R36/37/38
Safety: S26, S37/39

Xi

Assay: >99.5%

Guaranteed analysis

Aluminium (Al)	<2 ppm	Manganese (Mn)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Potassium (K)	<50 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<50 ppm
Chromium (Cr)	<2 ppm	Titanium (Ti)	<2 ppm
Cobalt (Co)	<2 ppm	Total chloride (Cl)	<0.001%
Copper (Cu)	<5 ppm	Total nitrogen (N)	<20 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Succinic acid extra pure SLR

packaging	product code
500 g Plastic jar	S/8520/53

$C_4H_6O_4$
CAS: 110-15-6
MW: 118.09
Boiling point: 235°C
Boiling pressure: 760 mmHg
Melting point: 185 to 190°C

Flash point: 206°C
HS-Nr: 29171990
EINECS: 203-740-4
Risk: R36/37/38
Safety: S26, S37/39

Xi

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<200 ppm		

Sucrose for analysis Certified AR, Eur.Ph., BP

packaging	product code
500 g Plastic jar	S/8600/53
1 kg Plastic jar	S/8600/60
3 kg Plastic jar	S/8600/63
5 kg Plastic drum	S/8600/65
10 kg Plastic drum	S/8600/68
25 kg Fibre Keg	S/8600/70

$C_{12}H_{22}O_{11}$
CAS: 57-50-1
MW: 342.3
Melting point: 190-192°C

HS-Nr: 17019910
EINECS: 200-334-9
Safety: S24/25

Guaranteed analysis

Loss on drying	<0.05%	Potassium (K)	<20 ppm
Specific rotation (α 20/D)	+66.4° to +66.6°	Sodium (Na)	<50 ppm
Sugar reducer	<0.005%	Total chloride (Cl)	<0.001 %
Calcium (Ca)	<10 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<1 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<1 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<2 ppm	Lithium (Li)	<2 ppm
Arsenic (As)	<2 ppm	Manganese (Mn)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Titanium (Ti)	<2 ppm
Chromium (Cr)	<2 ppm	Vanadium (V)	<2 ppm
Cobalt (Co)	<2 ppm		

Lot analysis on the label.

Sucrose extra pure SLR

packaging	product code
500 g Plastic jar	S/8560/53
1 kg Plastic jar	S/8560/60
3 kg Plastic jar	S/8560/63
5 kg Plastic drum	S/8560/65

$C_{12}H_{22}O_{11}$
CAS: 57-50-1
MW: 342.3
Melting point: 190-192°C

HS-Nr: 17019910
EINECS: 200-334-9
Safety: S24/25

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.002%
Iron (Fe)	<5 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<20 ppm	Total sulphur (S)	<100 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<500 ppm

Sudan black B C.I. 26150 pure

packaging	product code
25 g Glass packaging	S/8630/46

$C_{29}H_{24}N_6$
CAS: 4197-25-5
MW: 456.54
Melting point: 120-124°C

HS-Nr: 32041900
Risk: R11
Safety: S16, S24/25

F

Guaranteed analysis

IR Analysis Conform

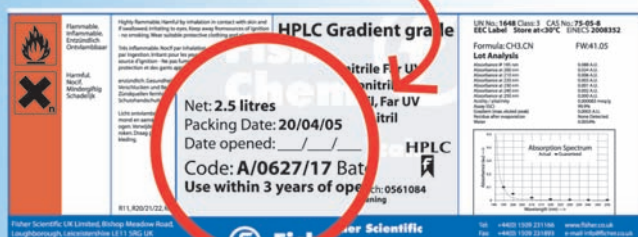
Sulfate standard solution 1000 ppm (1 mg/ml) for ion pair chromatography, Ready-to-use

packaging	product code
100 mL Plastic bottle	J/4564/05

HS-Nr: 38220000

Manufactured to a tolerance of $\pm 1\%$.

Use best before information on the label



Sulfate standard 1000 ppm

For Ion chromatography in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPASSO492Y
500 mL Plastic bottle	SPASSO492X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.3%.

Sulfate-sulfur standard 1000 ppm

For Ion chromatography in H₂O, NIST certified



packaging	product code
100 mL Plastic bottle	SPASSO4S92Y
500 mL Plastic bottle	SPASSO4S92X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.3%.

Sulfamic acid

for analysis Certified AR



packaging	product code
500 g Plastic jar	S/8641/53
10 kg Plastic screw top Keg	S/8641/68

H ₃ SO ₃ N	UN: 2967	
CAS: 5329-14-6	HS-Nr: 28111900	
MW: 97.09	EINECS: 226-218-8	
Melting point: 205 °C	Risk: R36/38, R52/53	
ADR/RID: 8/III	Safety: S26, S28A, S61	

Assay: >99.9%

Guaranteed analysis

Cadmium (Cd)	<5 ppm	Potassium (K)	<50 ppm
Calcium (Ca)	<20 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Sulfate (SO ₄)	<0.02 %
Iron (Fe)	<5 ppm	Total chloride (Cl)	<0.001 %
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<10 ppm

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Chromium (Cr)	<5 ppm	Silver (Ag)	<5 ppm
Cobalt (Co)	<5 ppm	Strontium (Sr)	<5 ppm
Lithium (Li)	<5 ppm	Titanium (Ti)	<5 ppm
Manganese (Mn)	<5 ppm	Vanadium (V)	<5 ppm

Lot analysis on the label.

Sulfamic acid

extra pure SLR



packaging	product code
500 g Plastic jar	S/8640/53
12.5 kg Plastic screw top Keg	S/8640/69
25 kg Fibre Keg	S/8640/70

H ₃ SO ₃ N	UN: 2967	
CAS: 5329-14-6	HS-Nr: 28111900	
MW: 97.09	EINECS: 226-218-8	
Melting point: 205 °C	Risk: R36/38, R52/53	
ADR/RID: 8/III	Safety: S26, S28A, S61	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<20 ppm	Sulfate (SO ₄)	<0.05%
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Sulfanilamide

extra pure SLR



packaging	product code
250 g Plastic jar	S/8660/50
20 kg Fibre Keg	S/8660/73

C ₆ H ₈ N ₂ O ₂ S	HS-Nr: 29350000
CAS: 63-74-1	EINECS: 200-563-4
MW: 172.21	Safety: S24/25
Melting point: 164 to 167°C	

Assay: >99%

Guaranteed analysis

Loss on drying	<0.5%	Iron (Fe)	<40 ppm
Melting Point tested	164.5 to 166.5°C	Lead (Pb)	<10 ppm
Residue after ignition	<0.1%	Total chloride (Cl)	<0.04%

Sulfanilic acid

for analysis Certified AR



packaging	product code
100 g Plastic jar	S/8720/48

C ₆ H ₇ NO ₃ S	HS-Nr: 38220000	
CAS: 121-57-3	EINECS: 204-482-5	
MW: 173.19	Risk: R36/38, R43	
Melting point: 365°C	Safety: S24, S37	

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Potassium (K)	<50 ppm
Copper (Cu)	<5 ppm	Sodium (Na)	<50 ppm
Iron (Fe)	<5 ppm	Sulfate (SO ₄)	<0.005%
Lead (Pb)	<5 ppm	Total chloride (Cl)	<0.002%
Magnesium (Mg)	<10 ppm	Total silicon (Si)	<20 ppm
Nitrite (NO ₂)	<0.00005%	Zinc (Zn)	<10 ppm

Lot analysis on the label.

Sulfanilic acid

extra pure SLR



packaging	product code
500 g Plastic jar	S/8680/53

C ₆ H ₇ NO ₃ S	HS-Nr: 38220000
CAS: 121-57-3	EINECS: 204-482-5
MW: 173.19	Risk: R36/38, R43
Melting point: 365°C	Safety: S24, S37

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Sulfate (SO ₄)	<0.05%
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.02%
Lead (Pb)	<20 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<200 ppm		

5-Sulfosalicylic acid dihydrate

for analysis Certified AR



packaging	product code
100 g Plastic Jar	S/8850/48
500 g Plastic Jar	S/8850/53

C ₇ H ₆ O ₆ S.2H ₂ O	UN: 2585
CAS: 5965-83-3	HS-Nr: 29182910
MW: 254.21	EINECS: 202-555-6
Melting point: 106 to 110°C	Risk: R22, R34
ADR/RID: 8/III	Safety: S26, S36/37/39, S45

Assay: 99.5 to 100.5%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.001%
Iron (Fe)	<10 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<10 ppm	Zinc (Zn)	<10 ppm
Magnesium (Mg)	<20 ppm	Salicylic acid	<0.01%
Potassium (K)	<50 ppm		

Sulfur standard standard metal solution 1000 ppm
 for ICP, solution aqueous

packaging	product code
500 mL Plastic bottle	J/8324/08

HS-Nr: 28429080

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sulfur standard standard metal solution 10 000 ppm
 for ICP, solution aqueous

packaging	product code
100 mL Plastic bottle	J/8323/05

HS-Nr: 28429080

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sulfur standard metal solution 1000 ppm
 for ICP solution in H₂O, NIST certified


packaging	product code
100 mL Plastic bottle	SPPLS92Y
250 mL Plastic bottle	SPPLS92T
500 mL Plastic bottle	SPPLS92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sulfur standard metal solution 10 000 ppm
 for ICP solution in H₂O, NIST certified


packaging	product code
100 mL Plastic bottle	SPPLS93Y
500 mL Plastic bottle	SPPLS93X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Sulfur precipitated
 extra pure

SLR



packaging	product code
500 g Plastic jar	S/8990/53

S
 CAS: 7704-34-9
 MW: 32.05
 Density at 20°C: 2.36
 Boiling point: 445°C
 Melting point: 114°C

Flash point: 168°C
 ADR/RID: 4.1/III
 UN: 1350
 HS-Nr: 38220000
 EINECS: 231-722-6

Guaranteed analysis

Acidity	<0.01 meq/g	Water	<0.2%
Sulfated ash	<0.025%	Arsenic (As)	<2 ppm

Sulfur flowers
 extra pure

SLR



packaging	product code
1 kg Plastic jar	S/8920/60
3 kg Plastic jar	S/8920/63

S
 CAS: 7704-34-9
 MW: 32.05
 Density at 20°C: 2.36
 Boiling point: 445°C
 Melting point: 114°C

Flash point: 168°C
 ADR/RID: 4.1/III
 UN: 1350
 HS-Nr: 38220000
 EINECS: 231-722-6

Sulfur roll
 pure

packaging	product code
1 kg Plastic jar	S/8970/60

S
 CAS: 7704-34-9
 MW: 32.05
 Density at 20°C: 2.36
 Boiling point: 445°C
 Melting point: 114°C

Flash point: 168°C
 ADR/RID: 4.1/III
 UN: 1350
 HS-Nr: 38220000
 EINECS: 231-722-6

Sulfuric acid 25% w/v
 pure

packaging	product code
5 L Plastic bottle	H/0564/21

Density at 20°C: 1.26 to 1.28
 ADR/RID: 8/II
 UN: 2796

HS-Nr: 28070010
 Risk: R35, R36/37
 Safety: S26, S30, S45


Sulfuric acid 50% w/v
 pure, for formaldehyde determination

packaging	product code
2.5 L Plastic bottle	S/8350/PB17

Density at 20°C: 1.286 to 1.297
 ADR/RID: 8/II
 UN: 2796

HS-Nr: 28070010
 Risk: R35, R36/37
 Safety: S26, S30, S45


Sulfuric acid 93-98% **NEW SPEC.**
 for ultra trace analysis

OPTIMA



packaging	product code
250 mL Bottle Teflon FEP	S/9225/07
500 mL Bottle Teflon FEP	S/9225/08
1 L Bottle Teflon FEP	S/9225/15

H₂SO₄
 CAS: 7664-93-9
 MW: 98.08
 Density at 20°C: 1.84
 Boiling point: 290°C
 Boiling pressure: 760 mmHg
 Melting point: 10°C

ADR/RID: 8/II
 UN: 1830
 HS-Nr: 28070010
 EINECS: 231-639-5
 Risk: R35
 Safety: S26, S30, S45

**Assay (H₂SO₄): 95%****Guaranteed analysis**

Aluminium (Al)	<50 ppt	Erbium (Er)	<10 ppt
Antimony (Sb)	<500 ppt	Europium (Eu)	<10 ppt
Arsenic (As)	<10 ppt	Gadolinium (Gd)	<10 ppt
Barium (Ba)	<10 ppt	Gallium (Ga)	<100 ppt
Beryllium (Be)	<10 ppt	Germanium (Ge)	<10 ppt
Bismuth (Bi)	<10 ppt	Hafnium (Hf)	<10 ppt
Cadmium (Cd)	<100 ppt	Holmium (Ho)	<10 ppt
Calcium (Ca)	<10 ppt	Indium (In)	<50 ppt
Cerium (Ce)	<10 ppt	Iron (Fe)	<10 ppt
Cesium (Cs)	<10 ppt	Lanthanum (La)	<10 ppt
Chromium (Cr)	<10 ppt	Lead (Pb)	<10 ppt
Cobalt (Co)	<10 ppt	Lithium (Li)	<10 ppt
Copper (Cu)	<10 ppt	Lutetium (Lu)	<50 ppt
Dysprosium (Dy)	<10 ppt		

Magnesium (Mg)	<10 ppt	Sodium (Na)	<10 ppt
Manganese (Mn)	<100 ppt	Tantalum (Ta)	<100 ppt
Mercury (Hg)	<10 ppt	Tellurium (Te)	<10 ppt
Molybdenum (Mo)	<10 ppt	Terbium (Tb)	<10 ppt
Neodymium (Nd)	<50 ppt	Thallium (Tl)	<10 ppt
Nickel (Ni)	<10 ppt	Thorium (Th)	<10 ppt
Platinum (Pt)	<50 ppt	Thulium (Tm)	<50 ppt
Potassium (K)	<10 ppt	Tin (Sn)	<50 ppt
Praseodymium (Pr)	<50 ppt	Titanium (Ti)	<10 ppt
Rhodium (Rh)	<10 ppt	Tungsten (W)	<10 ppt
Rubidium (Rb)	<10 ppt	Uranium (U)	<10 ppt
Samarium (Sm)	<10 ppt	Vanadium (V)	<10 ppt
Scandium (Sc)	<500 ppt	Ytterbium (Yb)	<10 ppt
Selenium (Se)	<50 ppt	Yttrium (Y)	<50 ppt
Silver (Ag)	<50 ppt	Zinc (Zn)	<10 ppt

Sulfuric acid 94-98% for trace metal analysis

NEW

Trace metal grade



packaging	product code
500 mL Coated Glass Bottle	S/9232/PB08
1 L Coated Glass Bottle	S/9232/PB15

H₂SO₄
CAS: 7664-93-9
MW: 98.07
Density at 20°C: 1.84
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45



Assay: 94 to 98%

Guaranteed analysis

Colour	<10 APHA	Niobium (Nb)	<0.5 ppm
Aluminium (Al)	<0.5 ppm	Nitrate (NO ₃)	<0.2 ppm
Antimony (Sb)	<0.1 ppm	Palladium (Pd)	<0.5 ppm
Arsenic (As)	<1 ppm	Platinum (Pt)	<0.5 ppm
Barium (Ba)	<0.1 ppm	Potassium (K)	<0.5 ppm
Beryllium (Be)	<0.1 ppm	Praseodymium (Pr)	<0.1 ppm
Bismuth (Bi)	<0.1 ppm	Rhodium (Rh)	<0.5 ppm
Cadmium (Cd)	<0.1 ppm	Rubidium (Rb)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Samarium (Sm)	<0.1 ppm
Cerium (Ce)	<0.5 ppm	Scandium (Sc)	<0.1 ppm
Cesium (Cs)	<0.5 ppm	Selenium (Se)	<5 ppm
Chromium (Cr)	<0.1 ppm	Silver (Ag)	<0.1 ppm
Cobalt (Co)	<0.1 ppm	Sodium (Na)	<0.5 ppm
Copper (Cu)	<0.1 ppm	Strontium (Sr)	<0.1 ppm
Dysprosium (Dy)	<0.1 ppm	Substances	
Erbium (Er)	<0.1 ppm	reducing permanganate	<20 ppm
Europium (Eu)	<0.1 ppm	Tantalum (Ta)	<0.5 ppm
Gadolinium (Gd)	<0.1 ppm	Tellurium (Te)	<0.1 ppm
Gallium (Ga)	<0.1 ppm	Terbium (Tb)	<0.1 ppm
Germanium (Ge)	<0.1 ppm	Thallium (Tl)	<0.5 ppm
Hafnium (Hf)	<0.1 ppm	Thorium (Th)	<0.1 ppm
Holmium (Ho)	<0.1 ppm	Thulium (Tm)	<0.1 ppm
Indium (In)	<0.5 ppm	Tin (Sn)	<0.1 ppm
Iron (Fe)	<0.5 ppm	Titanium (Ti)	<0.5 ppm
Lanthanum (La)	<0.1 ppm	Total chloride (Cl)	<0.7 ppm
Lead (Pb)	<0.1 ppm	Total phosphorus (P)	<0.05 ppm
Lithium (Li)	<0.1 ppm	Tungsten (W)	<0.5 ppm
Lutetium (Lu)	<0.1 ppm	Uranium (U)	<0.1 ppm
Magnesium (Mg)	<0.5 ppm	Vanadium (V)	<0.1 ppm
Manganese (Mn)	<0.1 ppm	Ytterbium (Yb)	<0.5 ppm
Mercury (Hg)	<1 ppm	Yttrium (Y)	<0.5 ppm
Molybdenum (Mo)	<0.1 ppm	Zinc (Zn)	<0.2 ppm
Neodymium (Nd)	<0.1 ppm	Zirconium (Zr)	<0.1 ppm
Nickel (Ni)	<0.1 ppm		

Guaranteed analysis

Aluminium (Al)	<0.02 ppm	Mercury (Hg)	<0.005 ppm
Antimony (Sb)	<0.005 ppm	Molybdenum (Mo)	<0.002 ppm
Arsenic (As)	<0.005 ppm	Nickel (Ni)	<0.002 ppm
Barium (Ba)	<0.02 ppm	Potassium (K)	<0.02 ppm
Beryllium (Be)	<0.005 ppm	Selenium (Se)	<0.005 ppm
Bismuth (Bi)	<0.005 ppm	Silver (Ag)	<0.002 ppm
Boron (B)	<0.005 ppm	Sodium (Na)	<0.2 ppm
Cadmium (Cd)	<0.002 ppm	Strontium (Sr)	<0.002 ppm
Calcium (Ca)	<0.05 ppm	Thallium (Tl)	<0.005 ppm
Chromium (Cr)	<0.005 ppm	Tin (Sn)	<0.005 ppm
Cobalt (Co)	<0.002 ppm	Titanium (Ti)	<0.002 ppm
Copper (Cu)	<0.005 ppm	Total chloride (Cl)	<0.1 ppm
Gallium (Ga)	<0.005 ppm	Total nitrogen (N)	<5 ppm
Germanium (Ge)	<0.005 ppm	Total phosphorus (P)	<0.05 ppm
Indium (In)	<0.005 ppm	Vanadium (V)	<0.002 ppm
Iron (Fe)	<0.05 ppm	Zinc (Zn)	<0.01 ppm
Lead (Pb)	<0.002 ppm	Zirconium (Zr)	<0.005 ppm
Lithium (Li)	<0.002 ppm	Residue after Ignition	<0.0002 %
Magnesium (Mg)	<0.02 ppm	Substances	
Manganese (Mn)	<0.002 ppm	reducing permanganate	<1 %

Sulfuric acid min 95% for electronic use (MOS)

NEW SPEC.

packaging	product code
2.5 L Plastic bottle	S/9222/PB17

H₂SO₄
CAS: 7664-93-9
MW: 98.08
Density at 20°C: 1.84
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 38220000
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45



Assay: >95%

Guaranteed analysis

Colour	<10 APHA	Manganese (Mn)	<0.02 ppm
Substances		Molybdenum (Mo)	<0.02 ppm
reducing KMnO ₄	<0.0001%	Nickel (Ni)	<0.1 ppm
Aluminium (Al)	<0.1 ppm	Nitrate (NO ₃)	<0.00002%
Barium (Ba)	<0.05 ppm	Potassium (K)	<1 ppm
Cadmium (Cd)	<0.02 ppm	Sodium (Na)	<5 ppm
Calcium (Ca)	<1 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.1 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total chloride (Cl)	<0.00002%
Copper (Cu)	<0.1 ppm	Total nitrogen (N)	<5 ppm
Iron (Fe)	<0.5 ppm	Total silicon (Si)	<0.5 ppm
Lead (Pb)	<0.1 ppm	Vanadium (V)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Zinc (Zn)	<0.5 ppm
Magnesium (Mg)	<0.5 ppm		

Filtered to 10 µm.

Sulfuric acid 95% For foodstuffs analysis, low in lead

NEW SPEC.

packaging	product code
500 mL Plastic bottle	S/9220/PB08

H₂SO₄
CAS: 7664-93-9
MW: 98.08
Density at 20°C: 1.84
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45



Assay: >98%

Guaranteed analysis

Lead (Pb)	<0.005 ppm
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Sulfuric acid 94-98% d=1.83 for trace metal analysis

NEW SPEC.

Primar plus



packaging	product code
250 mL Coated Glass Bottle	S/9231/PB07
500 mL Coated Glass Bottle	S/9231/PB08
1 L Coated Glass Bottle	S/9231/PB15
2.5 L Coated Glass Bottle	S/9231/PB17

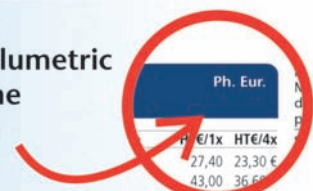
H₂SO₄
CAS: 7664-93-9
MW: 98.07
Density at 20°C: 1.83
Boiling point: 290°C
Boiling pressure: 760 mmHg
Safety: S26, S30, S45

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45



Assay: 94 to 98%

Reagents, Solvents & Volumetric
solutions comply with the
European Pharmacopeia
Read more on page 191



Sulfuric acid min 95% d=1.83 **NEW SPEC.** **Certified AR**
for analysis

packaging	product code
1 L Plastic bottle	S/9240/PB15
2.5 L Plastic bottle	S/9240/PB17
2.5 L Coated Glass Bottle	S/9240/PC17
25 L Metal drum	S/9240/25
45 L Plastic drum	S/9240/26

H₂SO₄
CAS: 7664-93-9
MW: 98.07
Density at 20°C: 1.83
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45

Assay: >95%

Guaranteed analysis

Colour	<10 APHA	Magnesium (Mg)	<0.2 ppm
Residue after ignition	< 0.0005%	Manganese (Mn)	<0.01 ppm
Substances reducing KMnO ₄	<0.0001%	Molybdenum (Mo)	<0.02 ppm
Aluminium (Al)	<0.05 ppm	Nickel (Ni)	<0.05 ppm
Arsenic (As)	<0.01 ppm	Nitrate (NO ₃)	<0.00002 %
Barium (Ba)	<0.02 ppm	Potassium (K)	<0.5 ppm
Cadmium (Cd)	<0.01 ppm	Selenium (Se)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Sodium (Na)	<1 ppm
Chromium (Cr)	<0.1 ppm	Strontium (Sr)	<0.02 ppm
Cobalt (Co)	<0.01 ppm	Titanium (Ti)	<0.02 ppm
Copper (Cu)	<0.1 ppm	Total chloride (Cl)	<0.00002 %
Iron (Fe)	<0.5 ppm	Total nitrogen (N)	<5 ppm
Lead (Pb)	<0.05 ppm	Total silicon (Si)	<0.5 ppm
Lithium (Li)	<0.01 ppm	Vanadium (V)	<0.01 ppm
		Zinc (Zn)	<0.2 ppm

Sulfuric acid 95% is equivalent to a strength of 18.0 M (36.80N).

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Sulfuric acid min 95% d=1.83 **NEW SPEC.** **SLR**
extra pure, low in nitrogen

packaging	product code
500 mL Plastic bottle	S/9200/PB08
2.5 L Plastic bottle	S/9200/PB17

H₂SO₄
CAS: 7664-93-9
MW: 98.08
Density at 20°C: 1.83
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45

Assay: >95%

Guaranteed analysis

Colour	<20 APHA	Nitrate (NO ₃)	<0.00002%
Calcium (Ca)	<10 ppm	Potassium (K)	<10 ppm
Copper (Cu)	<5 ppm	Sodium (Na)	<50 ppm
Iron (Fe)	<10 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<5 ppm	Total nitrogen (N)	<2 ppm
Magnesium (Mg)	<5 ppm	Zinc (Zn)	<2 ppm

Sulfuric acid 95% is equivalent to a strength of 18.0 M (36.80N).

Sulfuric acid min 95% d=1.83 **NEW SPEC.** **SLR**
extra pure

packaging	product code
1 L Plastic bottle	S/9160/PB15
2.5 L Plastic bottle	S/9160/PB17
45 L Plastic drum	S/9160/26

H₂SO₄
CAS: 7664-93-9
MW: 98.07
Density at 20°C: 1.83
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45

Assay: >95%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<10 ppm	Total nitrogen (N)	<20 ppm
Lead (Pb)	<5 ppm	Zinc (Zn)	<2 ppm
Magnesium (Mg)	<5 ppm		

Sulfuric acid 95% is equivalent to a strength of 18.0 M (36.80N).

Sulfuric acid min 95% d=1.83 **SLR**
extra pure, for milk testing, (Gerber test)

packaging	product code
2.5 L Plastic bottle	S/9360/PB17

H₂SO₄
CAS: 7664-93-9
MW: 98.08
Density at 20°C: 1.81 to 1.82
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45

Assay: 89.5 to 91%

Guaranteed analysis

Colour	<20 APHA
--------	----------

Sulfuric acid
pure, d=1.25 for batteries and accumulators

packaging	product code
2.5 L Plastic bottle	S/9500/PB17
50 L Plastic drum	S/9500/33

H₂SO₄
CAS: 7664-93-9
MW: 98.07
Density at 20°C: 1.24 to 1.26
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 2796
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45

Sulfuric acid min 95% d=1.83 **NEW SPEC.**
Technical

packaging	product code
2.5 L Plastic bottle	S/9120/PB17

H₂SO₄
CAS: 7664-93-9
MW: 98.08
Density at 20°C: 1.84
Boiling point: 290°C
Boiling pressure: 760 mmHg
Melting point: 10°C

ADR/RID: 8/II
UN: 1830
HS-Nr: 28070010
EINECS: 231-639-5
Risk: R35
Safety: S26, S30, S45

Assay: >95%

Sulfuric acid 95% is equivalent to a strength of 18.0 M (36.80N).

Sulfuric acid fuming
pure

packaging	product code
500 mL Coated Glass Bottle	S/9440/PB08

H₂SO₄.SO₃
CAS: 8014-95-7
MW: 178.14
Density at 20°C: 1.91 to 1.93
Boiling point: 138°C
Boiling pressure: 760 mmHg

Melting point: 2°C
ADR/RID: 8/II
UN: 1831
HS-Nr: 28070010
Risk: R14, R35, R37
Safety: S26, S30, S45

Assay: >104.5%

Sulfuric acid solution 5M approx. (10N) **NEW SPEC.** pure

packaging	product code
1 L Plastic bottle	J/8400/PB15
2.5 L Plastic bottle	J/8400/PB17

H₂SO₄
Density at 20°C: 1.286 to 1.297
ADR/RID: 8/II
UN: 2796
HS-Nr: 28070010
Risk: R35
Safety: S26, S30, S45



Guaranteed analysis

Molarity 4.7 to 5.3 M

Sulfuric acid solution 2M (4N) **NEW SPEC.** pure, Bench Reagent

packaging	product code
1 L Plastic bottle	J/8410/PB15
2.5 L Plastic bottle	J/8410/17

H₂SO₄
ADR/RID: 8/II
UN: 2796
HS-Nr: 38220000
Risk: R35
Safety: S26, S30, S45



Guaranteed analysis

Molarity 1.9 to 2.1 M

Sulfuric acid solution 1M (2N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/8420/PB15
2.5 L Plastic bottle	J/8420/17

ADR/RID: 8/II
UN: 2796
HS-Nr: 28070010
Risk: R36/38
Safety: S26, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.1M (0.2N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/8450/15
2.5 L Plastic bottle	J/8450/17
10 L Cubitainer	J/8450/24

HS-Nr: 28070010
Risk: R36/38
Safety: S26

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.05M (0.1N) **NEW SPEC.** Eur.Ph. , BP NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/8460/15
2.5 L Plastic bottle	J/8460/17
10 L Cubitainer	J/8460/24

HS-Nr: 28070010

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.05M (0.1N) **NEW SPEC.** NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/8460C/05
6 ampoule	J/8460C/90

ADR/RID: 8/II
UN: 2796
HS-Nr: 28070010
Risk: R36/38
Safety: S26, S45



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.5M (1N) **NEW SPEC.** Eur.Ph. , USP, BP NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/8430/15
2.5 L Plastic bottle	J/8430/17
10 L Cubitainer	J/8430/24

ADR/RID: 8/II
UN: 2796
HS-Nr: 38220000
Risk: R36/38
Safety: S26, S45



Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.01M (0.02N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/8470/PB15
2.5 L Plastic bottle	J/8470/17
10 L Cubitainer	J/8470/24

HS-Nr: 28070010

Manufactured to a tolerance of $\pm 0.3\%$.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.25M (0.5N) **NEW SPEC.** NIST Standard solution ready to use, For Volumetric analysis

packaging	product code
1 L Plastic bottle	J/8440/PB15
2.5 L Plastic bottle	J/8440/17

HS-Nr: 28070010
Risk: R36/38
Safety: S26

Manufactured to a tolerance of $\pm 0.1\%$.
See the full range of Standard Volumetric solution page 266.

Sulfuric acid solution 0.5M (1N) **NEW SPEC.** NIST Standard Concentrate, For Volumetric analysis

packaging	product code
1 ampoule	J/8430C/05
6 ampoule	J/8430C/90

ADR/RID: 8/II
UN: 2796
HS-Nr: 28070010
Risk: R35
Safety: S26, S30, S45



Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Sulfurous Acid pure, approx. 6% w/v SO₂

packaging	product code
2.5 L Glass bottle	J/8500/17

Density at 20°C: 1.03
ADR/RID: 8/II
UN: 1833
HS-Nr: 28112300
Risk: R36/37
Safety: S26



Assay: 5.8 to 6.2%

Save money!
Order 4 bottles in a box



Sulfuryl chloride

Technical

packaging	product code
500 mL Coated Glass Bottle	S/9560/PB08
SO ₂ Cl ₂ CAS: 7791-25-5 MW: 134.97 Density at 20°C: 1.62 to 1.72 Boiling point: 69.1°C Boiling pressure: 760 mmHg Melting point: -54.1°C	ADR/RID: 8/1 UN: 1834 HS-Nr: 28121090 EINECS: 232-245-6 Risk: R14, R34, R37 Safety: S26, S45



Talc fine powder

pure

packaging	product code
1 kg Plastic jar	T/0050/60
2.5 kg Plastic jar	T/0050/62
10 kg Plastic screw top Keg	T/0050/68
CAS: 14807-96-6 MW: 379.28 Melting point: 800°C	HS-Nr: 25262000 EINECS: 238-877-9 Safety: S24/25

Talc fine powder purified by acids

pure

packaging	product code
500 g Plastic jar	T/0100/53
CAS: 14807-96-6 MW: 379.28 Melting point: 800°C	HS-Nr: 25262000 EINECS: 238-877-9 Safety: S24/25

Tannic acid

extra pure

SLR



packaging	product code
500 g Plastic jar	T/0150/53
C ₇₆ H ₅₂ O ₄₆ CAS: 1401-55-4 MW: 170.22 Melting point: 218 °C	Flash point: 198°C HS-Nr: 32019090 EINECS: 215-753-2 Safety: S24/25

Guaranteed analysis

Loss on drying <9% Residue after ignition <0.2%

Tantalum standard metal solution 1000 ppm

for ICP solution in H₂O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLTA92Y
500 mL Plastic bottle	SPPLTA92X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tantalum standard metal solution 10 000 ppm

for ICP solution in H₂O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLTA93Y
500 mL Plastic bottle	SPPLTA93X

Density at 20°C: 1

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Compatible tap materials for Fisher Chemical 25L drums

Designation	Polypropylene	Brass	Designation	Polypropylene	Brass
acetone	X	X	methanol	X	X
acetonitrile	X	X	2-methoxyethanol	X	X
Benzyl alcohol	X	X	methyated spirits, Industrial	X	X
Butan-1-ol	X	X	4-methyl pentan-2-one	X	X
butanone		X	naphtha solvent		X
chlorobenzene		X	nitric acid	X	
chloroform		X	orthophosphoric acid	X	
cyclohexane		X	paraffin liquid	X	X
cyclohexanone		X	n-pentane		X
1,2-dichloroethane		X	pentan-1-ol	X	X
diclorometahne		X	petroleum spirit		X
diethylamine		X	propane-1,2-diol	X	X
diethyl ether		X	propan-1-ol	X	X
dimethylformamide	X	X	propan-2-ol	X	X
di-is-propyl ether		X	pyridine		X
ethanediol	X	X	sodium hydroxide solution	X	
ethanol	X	X	tetrachloroethylene		X
ethyl acetate		X	tetrahydrofuran		X
formaldehyde solution	X		toluene		X
formal saline	X	X	trichloroethylene		X
glycerol	X	X	triethanolamine	X	X
n-heptane		X	2,2,4-trimethylpentane		X
hexane		X	water	X	X
hexan-1-ol	X	X	xylene		X
hydrochloric acid	X				

One Trisure® Key For Bungs to remove bungs from Trisure fitted drums

packaging	product code	€ x1	€ x4
1 part	T/KEY		

HS-Nr: 38220000

Tap, nickel plated brass for 25L metal drum 3/4" BSP, nickel plated brass body, chrome ball valve PTFE seat

packaging	product code	€ x1	€ x4
1 Unit	TAP-105-K		

HS-Nr: 38220000

Tap, polypropylene **NEW** Tap adapter T/002/90 is required if this tap is to be used on 25L polyethylene drums

packaging	product code	€ x1	€ x4
1 part	T/0001/90		

HS-Nr: 84818099

Tap, adapter **NEW** Female tap adapter for fitting to 25L polyethylene drums

packaging	product code	€ x1	€ x4
1 part	T/0002/90		

HS-Nr: 84818099

T (+)-Tartaric acid

(+)-Tartaric acid for analysis

Certified AR, Eur.Ph.



packaging	product code
500 g Plastic jar	T/0250/53
1 kg Plastic jar	T/0250/60

$C_4H_6O_6$
CAS: 87-69-4
MW: 150.09
Melting point: 168-172°C
Flash point: 210°C

HS-Nr: 29181200
EINECS: 201-766-0
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99.5%

Guaranteed analysis

Calcium (Ca)	<20 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<2 ppm	Total chloride (Cl)	<0.0005 %
Iron (Fe)	<2 ppm	Total phosphorus (P)	<20 ppm
Lead (Pb)	<2 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<100 ppm
Oxalate (C_2O_4)	<0.01 %	Zinc (Zn)	<10 ppm
Potassium (K)	<20 ppm		

Typical analysis

Arsenic (As)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

(+)-Tartaric acid extra pure, powder

SLR



packaging	product code
500 g Plastic jar	T/0210/53
1 kg Plastic jar	T/0210/60
5 kg Plastic drum	T/0210/65

$C_4H_6O_6$
CAS: 87-69-4
MW: 150.09
Melting point: 168-172°C
Flash point: 210°C

HS-Nr: 29181200
EINECS: 201-766-0
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.002%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<50 ppm

(+)-Tartaric acid extra pure, crystals

SLR



packaging	product code
500 g Plastic jar	T/0200/53
1 kg Plastic jar	T/0200/60

$C_4H_6O_6$
CAS: 87-69-4
MW: 150.09
Melting point: 168-172°C
Flash point: 210°C

HS-Nr: 29181200
EINECS: 201-766-0
Risk: R36/37/38
Safety: S26, S37/39



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.002%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<10 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<100 ppm	Zinc (Zn)	<50 ppm

(+)-Tartaric acid diammonium salt extra pure

SLR



packaging	product code
500 g Plastic jar	A/6590/53

$(NH_4)_2C_4H_4O_6$
CAS: 3164-29-2
MW: 184.15
Density at 20°C: 1.6

HS-Nr: 28323000
EINECS: 221-618-9
Safety: S24/25

Assay: >98%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<50 ppm	Sodium (Na)	<100 ppm
Iron (Fe)	<50 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<50 ppm	Zinc (Zn)	<50 ppm
Magnesium (Mg)	<100 ppm		

Sodium tartrate dihydrate for analysis

Certified AR



packaging	product code
500 g Plastic jar	S/6922/53

$C_4H_4Na_2O_6 \cdot 2H_2O$
CAS: 6106-24-7
MW: 230.08

HS-Nr: 29181300
EINECS: 212-773-2
Safety: S24/25

Assay: 99 to 101%

Guaranteed analysis

pH (aqueous solution 5%)	7.5 to 8.5	Molybdenum (Mo)	<5 ppm
Aluminium (Al)	<5 ppm	Nickel (Ni)	<5 ppm
Arsenic (As)	<5 ppm	Potassium (K)	<20 ppm
Barium (Ba)	<5 ppm	Silver (Ag)	<5 ppm
Cadmium (Cd)	<5 ppm	Strontium (Sr)	<5 ppm
Calcium (Ca)	<50 ppm	Titanium (Ti)	<5 ppm
Chromium (Cr)	<5 ppm	Total chloride (Cl)	<0.0005%
Cobalt (Co)	<5 ppm	Total nitrogen (N)	<20 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<50 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Magnesium (Mg)	<20 ppm	Zinc (Zn)	<10 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Sodium tartrate dihydrate extra pure

SLR



packaging	product code
500 g Plastic jar	S/6920/53

$C_4H_4Na_2O_6 \cdot 2H_2O$
CAS: 6106-24-7
MW: 230.08

HS-Nr: 29181300
EINECS: 212-773-2
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Total chloride (Cl)	<0.005%
Copper (Cu)	<20 ppm	Total phosphorus (P)	<200 ppm
Iron (Fe)	<20 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<100 ppm	Zinc (Zn)	<50 ppm
Potassium (K)	<100 ppm		

Tartaric acid monopotassium salt

See Potassium hydrogen tartrate, page 211



Taurine pure

packaging	product code
500 g Plastic jar	T/0300/53

$C_2H_7NO_3S$
CAS: 107-35-7
MW: 125.15
Boiling pressure: 760 mmHg

Melting point: 300 °C
HS-Nr: 29211990
EINECS: 203-483-8
Safety: S24/25

Assay: >99%

Tellurium standard metal solution 1000 ppm for AAS, solution HCl 20%

packaging	product code
100 mL Plastic bottle	J/8100/05
500 mL Plastic bottle	J/8100/08

ADR/RID: 8/II
UN: 3264
HS-Nr: 28111900
Risk: R36/37/38
Safety: S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tellurium standard metal solution 1000 ppm for ICP, solution HCl 20%

packaging	product code
500 mL Plastic bottle	J/8327/08

UN: 3264
HS-Nr: 38220000
Risk: R36/37/38
Safety: S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tellurium standard metal solution 1000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLTE22Y
500 mL Plastic bottle	SPPLTE22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tellurium standard metal solution 1000 ppm for ICP solution in HCl 10%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLTE32X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tellurium standard metal solution 10 000 ppm for ICP solution in HCl 40%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLTE53X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Terbium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLTB22Y
500 mL Plastic bottle	SPPLTB22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Terbium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLTB23Y
500 mL Plastic bottle	SPPLTB23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Terbium standard metal solution 10 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLTB21AY

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

ter-Butyl alcohol See ter-Butanol, page 50



Terpineol pure, Mixed Isomers

packaging	product code
500 mL Glass bottle	T/0420/08

C₁₀H₁₈O
CAS: 8000-41-7
MW: 154.25
Density at 20°C: 0.925 to 0.935
HS-Nr: 29061900
EINECS: 232-268-1
Risk: R36/37/38

Tetrabromo (R) fluorescein C.I. 45380 pure

packaging	product code
10 g Glass Jar	T/0470/45

C₂₀H₆Br₄Na₂O₅
CAS: 17372-87-1
MW: 691.85
Density at 20°C: 1.02
Melting point: >300 °C
HS-Nr: 32041200
EINECS: 241-409-6
Risk: R36
Safety: S26, S37/39



Guaranteed analysis

IR Analysis Conform

Tetrabutyl ammonium bromide for HPLC

Certified



packaging	product code
25 g Plastic jar	T/0476/46

$C_{16}H_{36}BrN$
CAS: 1643-19-2
MW: 322.38
Melting point: 100 to 104°C
HS-Nr: 29239000
EINECS: 216-699-2
Risk: R36/37/38
Safety: S26, S37/39

Xi



Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.1 M) <0.05 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Tetrabutylammonium dihydrogen phosphate

See Tetrabutyl ammonium phosphate, page 282

Tetra-n-butyl ammonium fluoride extra pure

SLR



packaging	product code
25 g Plastic jar	T/0478/46

$(CH_3CH_2CH_2CH_2)_4NF \cdot 3H_2O$
CAS: 429-41-4
MW: 315.52
HS-Nr: 29239000
EINECS: 207-057-2
Risk: R22
Safety: S24/25

Xn



Assay: >98%

Tetrabutylammonium hydrogen sulfate extra pure

SLR



packaging	product code
25 g Plastic jar	T/0479/46
100 g Plastic jar	T/0479/48

$C_{16}H_{37}NSO_4$
CAS: 32503-27-8
MW: 339.54
Melting point: 168 to 172°C
HS-Nr: 29239000
EINECS: 251-068-5
Risk: R22, R36/37/38
Safety: S26, S37/39

Xn



Guaranteed analysis

Melting Point tested 169 to 171°C

Tetra-n-butyl ammonium hydroxide for HPLC, solution 0.1M (phosphate buffered)

Certified



packaging	product code
250 mL Plastic bottle	T/0486/07

HS-Nr: 29239000
Risk: R34
Safety: S26, S28

C



Guaranteed analysis

At pH 20°C 7 - 7.5 Value between 0.995 to 1.005

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.005 M) .. <0.02 A.U.

Filtered to 0.2 µm.

Tetra-n-butyl ammonium hydroxide for HPLC, solution 0.5M

Certified



packaging	product code
250 mL Plastic bottle	T/0481/07

ADR/RID: 8/II
UN: 1760
HS-Nr: 29239000
Risk: R34
Safety: S26, S28

Xn



Manufactured to a tolerance of ± 0.2%.

Filtered to 0.2 µm.

Tetra-n-butyl ammonium hydroxide solution extra pure

SLR



packaging	product code
100 mL Plastic bottle	T/0480/05
250 mL Plastic bottle	T/0480/07

$C_{16}H_{37}NO$
CAS: 2052-49-5
MW: 259.46
Density at 20°C: >1
Boiling point: >100°C
Boiling pressure: 760 mmHg
ADR/RID: 8/II
UN: 3267
HS-Nr: 29239000
EINECS: 218-147-6
Risk: R34
Safety: S26, S36/37/39, S45

C



Assay: 39.5 to 41%

Guaranteed analysis

Residue after ignition <0.05% Sulfate (SO₄) <0.02%
Bromide (Br) <0.1%

Tetra-n-butyl ammonium hydroxide solution 0.1 M (0.1N) in toluene/methanol

Standard solution ready to use, For volumetric analysis

packaging	product code
500 mL Glass bottle	J/8750/08
1 L Glass bottle	J/8750/15
2.5 L Glass bottle	J/8750/17

ADR/RID: 3(6.1)/II
UN: 1992
HS-Nr: 38220000
Risk: R34
Safety: S26, S28

C



Manufactured to a tolerance of 5%.

See the full range of Standard Volumetric solution page 266.

Tetra-n-butylammonium iodide extra pure

SLR



packaging	product code
100 g Plastic jar	T/0490/48

$C_{16}H_{38}IN$
CAS: 311-28-4
MW: 369.38
Melting point: 141 to 150°C
HS-Nr: 29239000
EINECS: 206-220-5
Risk: R22, R36/37/38
Safety: S26, S37/39

Xn



Assay: >98%

Guaranteed analysis

Residue after ignition <0.05%

Tetrabutyl ammonium phosphate extra pure

SLR



packaging	product code
5 g Glass packaging	T/0505/44

$C_{16}H_{38}NPO_4$
CAS: 5574-97-0
MW: 339.46
Melting point: 148 to 151°C
HS-Nr: 29239000
EINECS: 226-947-1
Risk: R22, R36/37/38
Safety: S26, S37/39

Xn



Assay: >97%

pH Buffers

NIST Certified Standard
Solution & Concentrate

A full range to discover on page 45



Tetrachloroethylene

for UV spectroscopy

Certified

packaging	product code
2.5 L Coated Glass Bottle	T/0605/PB17
C_2Cl_4 CAS: 127-18-4 MW: 165.83 Density at 20°C: 1.63 Boiling point: 120 to 122°C Boiling pressure: 760 mmHg Melting point: -22°C ADR/RID: 6.1/III UN: 1897 HS-Nr: 29032300 EINECS: 204-825-9 Risk: R40, R51/53 Safety: S23, S36/37, S61 Xn N	

Assay (GC): >99.9%

Guaranteed analysis

Acidity	<0.0003 meq/g	Residue after evaporation	<5 ppm
Alkalinity	<0.00006 meq/g	Water	<0.01%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

300 nm	<0.125 A.U.	340 nm	<0.05 A.U.
310 nm	<0.08 A.U.	360 nm	<0.05 A.U.
320 nm	<0.05 A.U.	400 nm	<0.01 A.U.

Tetrachloroethylene

for analysis

Certified AR

packaging	product code
2.5 L Glass bottle	T/0601/17
2.5 L Coated Glass Bottle	T/0601/PB17
C_2Cl_4 CAS: 127-18-4 MW: 165.83 Density at 20°C: 1.63 Boiling point: 120 to 122°C Boiling pressure: 760 mmHg Melting point: -22°C ADR/RID: 6.1/III UN: 1897 HS-Nr: 29032300 EINECS: 204-825-9 Risk: R40, R51/53 Safety: S23, S36/37, S61 Xn N	

Assay (GC): >99.5%

Guaranteed analysis

Acetone	<0.02%	Iron (Fe)	<0.1 ppm
Acidity / Alkalinity	<0.0003 meq/g	Lead (Pb)	<0.05 ppm
Colour	<10 APHA	Magnesium (Mg)	<0.2 ppm
Residue after evaporation	<20 ppm	Potassium (K)	<0.5 ppm
Water	<0.01%	Sodium (Na)	<0.5 ppm
Calcium (Ca)	<0.5 ppm	Total phosphorus (P)	<0.1 ppm
Chloride (Cl)	<0.0001 %	Total sulphur (S)	<0.5 ppm
Chlorine	<0.3 ppm	Zinc (Zn)	<0.1 ppm
Copper (Cu)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total silicon (Si)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Manganese (Mn)	<0.02 ppm		

Lot analysis on the label.

Guaranteed analysis

Acidity / Alkalinity	<0.003 meq/g	Magnesium (Mg)	<2 ppm
Colour	<10 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<5 ppm
Water	<0.1%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm		

see page 279 for suitable Tap & accessories.

Tetrachloroethylene

Technical

packaging	product code
2.5 L Glass bottle	T/0550/17
2.5 L Coated Glass Bottle	T/0550/PB17
25 L Metal drum	T/0550/25

C_2Cl_4 CAS: 127-18-4 MW: 165.83 Density at 20°C: 1.61 to 1.63 Boiling point: 120 to 122°C Boiling pressure: 760 mmHg Melting point: -22°C ADR/RID: 6.1/III UN: 1897 HS-Nr: 29032300 EINECS: 204-825-9 Risk: R40, R51/53 Safety: S23, S36/37, S61 Xn N	
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see page 279 for suitable Tap & accessories.

Tetrachlorosilane

See Silicon tetrachloride, page 228



Tetradecyltrimethylammonium bromide

for HPLC

Certified



packaging	product code
25 g Plastic Jar	T/0611/46

$C_{17}H_{38}NBr$ CAS: 1119-97-7 MW: 336.39 Melting point: 245 to 250°C ADR/RID: 8/III UN: 1759 HS-Nr: 29239000 EINECS: 214-291-9 Risk: R34 Safety: S26, S36/37/39, S45 C	
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Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm	<0.05 A.U.
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Lot analysis on the label.

Filtered to 0.2 µm.

Tetrachloroethylene

extra pure

SLR

packaging	product code
2.5 L Glass bottle	T/0600/17
2.5 L Coated Glass Bottle	T/0600/PB17
5 L Metal can	T/0600/21
25 L Metal drum	T/0600/25
C_2Cl_4 CAS: 127-18-4 MW: 165.83 Density at 20°C: 1.63 Boiling point: 120 to 122°C Boiling pressure: 760 mmHg Melting point: -22°C ADR/RID: 6.1/III UN: 1897 HS-Nr: 29032300 EINECS: 204-825-9 Risk: R40, R51/53 Safety: S23, S36/37, S61 Xn N	

Assay (GC): >99%

Tetraethylammonium bromide

for HPLC

Certified



packaging	product code
25 g Plastic jar	T/0621/46

$C_8H_{20}NBr$ CAS: 71-91-0 MW: 210.16 Melting point: 285 °C HS-Nr: 29239000 EINECS: 200-769-4 Risk: R36/37/38 Safety: S26, S37/39 Xi	
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Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aq. 0.1 M)	<0.05 A.U.
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Lot analysis on the label.

Filtered to 0.2 µm.

Tetraethylammonium bromide extra pure

SLR



packaging	product code
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100 g Plastic jar T/0620/48

C ₈ H ₂₀ NBr	HS-Nr: 29239000	Xi 
CAS: 71-91-0	EINECS: 200-769-4	
MW: 210.16	Risk: R36/37/38	
Melting point: 285 °C	Safety: S26, S37/39	
Assay: >98%		

Tetrahydrofuran unstabilized for HPLC

Certified



packaging	product code
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1 L Coated Glass Bottle T/0706/PB15
2.5 L Coated Glass Bottle T/0706/PB17
25 L Stainless steel drum T/0706/255S
200 L Stainless steel drum T/0706/275S

C ₄ H ₈ O	Flash point: -21°C	
CAS: 109-99-9	ADR/RID: 3/II	
MW: 72.11	UN: 2056	
Density at 20°C: 0.88	HS-Nr: 29321100	
Boiling point: 66°C	EINECS: 203-726-8	
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37	
Melting point: -108.4°C	Safety: S16, S29, S33	

Guaranteed analysis

Acidity	<0.0002 meq/g	Water	<0.03%
Alkalinity	<0.0006 meq/g	Peroxide	<0.01%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

230 nm	<0.5 A.U.	260 nm	<0.05 A.U.
240 nm	<0.26 A.U.	270 nm	<0.04 A.U.
250 nm	<0.1 A.U.	280 nm	<0.02 A.U.

Lot analysis on the label including an absorbance curve.
Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Tetrahydrofuran stabilized with 0.025% BHT for Gel Permeation Chromatography (GPC)



packaging	product code
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2.5 L Coated Glass Bottle T/0709/PB17

C ₄ H ₈ O	Flash point: -21°C	F 
CAS: 109-99-9	ADR/RID: 3/II	
MW: 72.11	UN: 2056	
Density at 20°C: 0.88	HS-Nr: 29321100	
Boiling point: 66°C	EINECS: 203-726-8	Xi 
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37	
Melting point: -108.4°C	Safety: S16, S29, S33	

Colour	<10 APHA	Water	<0.03%
Residue after evaporation	<20 ppm		

Stabilised with 0.025% BHT.

Tetrahydrofuran unstabilized extra dry, for synthesis



packaging	product code
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1 L Coated Glass Bottle T/0702/PB15
2.5 L Coated Glass Bottle T/0702/PB17

C ₄ H ₈ O	Flash point: -21°C	F 
CAS: 109-99-9	ADR/RID: 3/II	
MW: 72.11	UN: 2056	
Density at 20°C: 0.88	HS-Nr: 29321100	
Boiling point: 66°C	EINECS: 203-726-8	Xi 
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37	
Melting point: -108.4°C	Safety: S16, S29, S33	

Guaranteed analysis

Residue after evaporation	<2 ppm	Water	<0.01%
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Recommended for the synthesis of DNA and peptide sequencing.

Tetrahydrofuran stabilized with 0.025% BHT for analysis

Certified AR



packaging	product code
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1 L Glass bottle T/0701/15
1 L Coated Glass Bottle T/0701/PB15
2.5 L Glass bottle T/0701/17
2.5 L Coated Glass Bottle T/0701/PB17
5 L Metal can T/0701/21
25 L Metal drum T/0701/25

C ₄ H ₈ O	Flash point: -21°C	F  Xi 
CAS: 109-99-9	ADR/RID: 3/II	
MW: 72.11	UN: 2056	
Density at 20°C: 0.88	HS-Nr: 29321100	
Boiling point: 66°C	EINECS: 203-726-8	
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37	
Melting point: -108.4°C	Safety: S16, S29, S33	

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Magnesium (Mg)	<0.1 ppm
Colour	<10 APHA	Potassium (K)	<0.5 ppm
Residue after ignition	<0.002%	Sodium (Na)	<1 ppm
Water	<0.03%	Total phosphorus (P)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Total sulphur (S)	<0.5 ppm
Copper (Cu)	<0.05 ppm	Zinc (Zn)	<0.2 ppm
Iron (Fe)	<0.1 ppm	Methyl tétrahydrofuranne	<0.1 %
Lead (Pb)	<0.05 ppm	Peroxide	<0.005 %

Typical analysis

Aluminium (Al)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Nickel (Ni)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Total silicon (Si)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Manganese (Mn)	<0.02 ppm		

Lot analysis on the label.

Stabilised with 0.025% BHT.

see page 279 for suitable Tap & accessories.

Tetrahydrofuran stabilized with 0.025% BHT extra pure

SLR



packaging	product code
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500 mL Glass bottle T/0700/08
2.5 L Glass bottle T/0700/17
2.5 L Coated Glass Bottle T/0700/PB17
5 L Metal can T/0700/21
25 L Metal drum T/0700/25
200 L Metal drum T/0700/27

C ₄ H ₈ O	Flash point: -21°C	
CAS: 109-99-9	ADR/RID: 3/II	
MW: 72.11	UN: 2056	
Density at 20°C: 0.88	HS-Nr: 29321100	
Boiling point: 66°C	EINECS: 203-726-8	
Boiling pressure: 760 mmHg	Risk: R11, R19, R36/37	
Melting point: -108.4°C	Safety: S16, S29, S33	

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Magnesium (Mg)	<2 ppm
Colour	<10 APHA	Potassium (K)	<2 ppm
Residue after ignition	<0.005%	Sodium (Na)	<5 ppm
Water	<0.05%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm	Peroxide	<0.01%

Stabilised with 0.025% BHT.

see page 279 for suitable Tap & accessories.

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Tetrahydronaphthalene extra pure

SLR

Specified	packaging	product code
	500 mL Glass bottle	T/0850/08
$C_{10}H_{12}$ CAS: 119-64-2 MW: 132.21 Density at 20°C: 0.97 Boiling point: 207°C Boiling pressure: 760 mmHg Melting point: -35°C Flash point: 77°C ADR/RID: 9/III UN: 3082 HS-Nr: 29029090 EINECS: 204-340-2 Risk: R19, R36/38, R51/53 Safety: S26, S28A, S61		Xi

Assay (GC): >97%

N,N,N',N'-Tetramethyl-p-phenylene-diamine dihydrochloride extra pure

SLR

Specified	packaging	product code
	5 g Plastic jar 10 g Plastic jar	T/0960/44 T/0960/45
$C_{10}H_{16}N_2 \cdot 2HCl$ CAS: 637-01-4 MW: 237.17 Melting point: 217 to 222°C ADR/RID: 6.1/II UN: 2811 HS-Nr: 29215110 EINECS: 211-274-8 Risk: R20/21/22 Safety: S36/37		Xn

Assay: >97%

TFA See Trifluoroacetic acid, page 295



Tetramethyl ammonium chloride for HPLC

Certified

HPLC	packaging	product code
	25 g Plastic jar	T/0931/46
$C_4H_{12}NCl$ CAS: 75-57-0 MW: 109.6 Melting point: 420°C ADR/RID: 6.1/III UN: 2811 HS-Nr: 29239000 EINECS: 200-880-8 Risk: R25, R36/37/38 Safety: S26, S28A, S37/39, S45		T

Assay: >98%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.1 M) <0.05 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Thallium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

SPAX CertiPrep	packaging	product code
	100 mL Plastic bottle 250 mL Plastic bottle 500 mL Plastic bottle	SPPLTL22Y SPPLTL22T SPPLTL22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Thallium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

SPAX CertiPrep	packaging	product code
	100 mL Plastic bottle 500 mL Plastic bottle	SPPLTL23Y SPPLTL23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tetramethyl ammonium hydrogen sulfate for HPLC

Certified

HPLC	packaging	product code
	5 g Glass packaging	T/0935/44
$C_4H_{13}NSO_4$ CAS: 80526-82-5 MW: 171.21 Melting point: 295 to 297°C HS-Nr: 29239000 EINECS: 279-495-5 Risk: R36/37/38 Safety: S26, S37/39		Xi

Assay: >99%

Guaranteed analysis

Loss on drying 100°C <2%

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm <0.3 A.U. 220 nm <0.05 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Tetramethyl ammonium hydroxide solution 25% in water extra pure

SLR

Specified	packaging	product code
	25 mL Plastic bottle 100 mL Plastic bottle	T/0940/04 T/0940/05
$C_4H_{13}NO$ CAS: 75-59-2 MW: 91.15 Density at 20°C: 1.02 Boiling point: 110°C Boiling pressure: 760 mmHg ADR/RID: 8/II UN: 1835 HS-Nr: 28151100 EINECS: 200-882-9 Risk: R20/21/22, R34 Safety: S26, S36/37/39, S45		C

Assay: >24.5%

Guaranteed analysis

Colour <20 APHA Halogenated compounds <0.2%

Residue after ignition <0.3%

Thermit ignition powder pure

packaging	product code
250 g Glass packaging	T/0978/50

ADR/RID: 5.1/II

UN: 1479

HS-Nr: 28211000

Risk: R8, R10, R15, R20/22
Safety: S7/8, S13, S27, S43


Thermit powder pure

packaging	product code
500 g Glass packaging	T/0977/53
ADR/RID: 4.1/III UN: 3178 HS-Nr: 38220000	Risk: R10, R15 Safety: S7/8, S43



Thioacetamide extra pure

SLR

packaging	product code
25 g Plastic jar	T/0980/46
C ₂ H ₅ NS CAS: 62-55-5 MW: 75.13 Density at 20°C: 1.37 Melting point: 112 to 114°C Assay: >98%	HS-Nr: 29309085 EINECS: 200-540-9 Risk: R45, R22, R36/38, R52/53 Safety: S53, S45, S61



Thioglycolic acid extra pure

SLR

packaging	product code
100 mL Coated Glass Bottle	T/1000/PB05
250 mL Coated Glass Bottle	T/1000/PB07
2.5 L Coated Glass Bottle	T/1000/PB17
C ₂ H ₄ O ₂ S CAS: 68-11-1 MW: 92.12 Density at 20°C: 1.33 Boiling point: 96°C Boiling pressure: 5 mmHg Melting point: -16°C Flash point: 126°C Assay: >97%	ADR/RID: 8/II UN: 1940 HS-Nr: 29309085 EINECS: 200-677-4 Risk: R24/25, R26, R34 Safety: S23, S25, S27, S28C, S36/37, S45



Thionyl chloride pure

packaging	product code
500 mL Coated Glass Bottle	T/1050/PB08
SOCl ₂ CAS: 7719-09-7 MW: 118.97 Density at 20°C: 1.59 to 1.69 Boiling point: 76°C Boiling pressure: 760 mmHg Melting point: -105°C	ADR/RID: 8/I UN: 1836 HS-Nr: 28121090 EINECS: 231-748-8 Risk: R14, R20/22, R29, R35 Safety: S26, S36/37/39, S45



Thorium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLTH22Y
500 mL Plastic bottle	SPPLTH22X
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45	



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Thorium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLTH22Y
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45	



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Thullium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLTM22Y
500 mL Plastic bottle	SPPLTM22X
Density at 20°C: 1 Risk: R34 Safety: S36/37/39, S26, S45	



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Thymol extra pure

SLR

packaging	product code
100 g Plastic jar	T/1450/48
C ₁₀ H ₁₄ O CAS: 89-83-8 MW: 150.22 Density at 20°C: 0.96 Boiling point: 232°C Boiling pressure: 760 mmHg Freezing point: <49°C Melting point: 48 to 52°C	Flash point: 102°C ADR/RID: 8/III UN: 3261 HS-Nr: 29071990 EINECS: 201-944-8 Risk: R22, R34, R51/53 Safety: S26, S28A, S36/37/39, S45, S61



Guaranteed analysis
Residue after evaporation <0.05%

Thymol blue solution 0.04% pure, indicator grade

packaging	product code
500 mL Glass bottle	T/1470L/08
ADR/RID: 3/III UN: 1170 HS-Nr: 38220000	Risk: R10 Safety: S16, S24/25



Guaranteed analysis
At pH 20°C pH > 0

Thymol blue pure, indicator grade

packaging	product code
5 g Glass packaging	T/1470/44
C ₂₇ H ₃₀ O ₅ S CAS: 76-61-9 MW: 466.58 Melting point: 221 °C	HS-Nr: 29349090 EINECS: 200-973-3 Safety: S24/25

Guaranteed analysis
IR Analysis Conform

pH 1.2-2.8 red to yellow.
pH 8.0-9.6 yellow to blue.

Thymolphthalein solid pure, indicator grade

packaging	product code
5 g Glass packaging	T/1480/44
25 g Glass packaging	T/1480/46

$C_{28}H_{30}O_4$	HS-Nr: 29322990	
CAS: 125-20-2	EINECS: 204-729-7	
MW: 430.53	Risk: R40	
Melting point: 251 to 253°C	Safety: S36/37	

Guaranteed analysis

IR Analysis Conform

pH 9.3-10.5 colorless to blue.

Conforming to the IR spectrum of reference.

Thymolphthalein solution 0.2% pure, indicator grade

packaging	product code
500 mL Glass bottle	T/1480L/08

ADR/RID: 3/III	Risk: R10, R40/20/21/22,	
UN: 1170	R20/21/22	
HS-Nr: 38220000	Safety: S16, S36/37, S45	

Guaranteed analysis

At pH 20°C pH > 0

Thymolsulfonephthaleindi-(methyl-iminodiacetic acid) sodium salt pure

packaging	product code
1 g Glass Jar	T/1500/43

$C_{37}H_{41}N_2Na_3O_{13}S$	HS-Nr: 29349090
CAS: 1945-77-3	EINECS: 217-743-3
MW: 822.78	Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Tillman's reagent

See Phenol-indo-2.6-dichlorophenol sodium salt, page 196



Tin standard metal solution 1000 ppm for AAS, solution HCl 1M

packaging	product code
100 mL Plastic bottle	J/8067/05
500 mL Plastic bottle	J/8067/08

HS-Nr: 38220000	
Risk: R36/38	
Safety: S26	

Manufactured to a tolerance of $\pm 0.5\%$.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 1000 ppm for ICP, solution HCl 1M

packaging	product code
500 mL Plastic bottle	J/8326/08

HS-Nr: 38220000	
Risk: R36/38	
Safety: S26	

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 10 000 ppm for ICP, solution HCl 1M

packaging	product code
100 mL Plastic bottle	J/8325/05

HS-Nr: 38220000	
Risk: R36/38	
Safety: S26	

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 1000 ppm for ICP solution in HNO₃ 1%/HF 1%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLSN22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 1000 ppm for ICP solution in HCl 20%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLSN52Y
250 mL Plastic bottle	SPPLSN52T
500 mL Plastic bottle	SPPLSN52X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 10 000 ppm for ICP solution in HNO₃ 2%/HF 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLSN23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 10 000 ppm for ICP solution in HCl 20%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLSN53Y
500 mL Plastic bottle	SPPLSN53X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tin standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 1%/HF 1%, NIST certified



packaging	product code
-----------	--------------

100 mL Plastic bottle

SPCLSN22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Tin (metal) for analysis

Certified AR



packaging	product code
-----------	--------------

250 g Plastic jar

T/1640/50

Sn
CAS: 7440-31-5
MW: 118.69
Density at 20°C: 7.3
Boiling point: 2270°C
Boiling pressure: 760 mmHg
Melting point: 231.9°C
HS-Nr: 80011000
EINECS: 231-141-8
Safety: S24/25

Assay: >99.5%

Guaranteed analysis

Antimony (Sb)	<200 ppm	Iron (Fe)	<100 ppm
Bismuth (Bi)	<40 ppm	Lead (Pb)	<50 ppm
Copper (Cu)	<10 ppm	Zinc (Zn)	<20 ppm

The prices applied to the tin and derivatives vary with the price of the raw material.

Tin metal powder fine pure

packaging	product code
-----------	--------------

100 g Plastic jar

T/1650/48

Sn
CAS: 7440-31-5
MW: 118.69
Density at 20°C: 7.3
Boiling point: 2270°C
Boiling pressure: 760 mmHg
Melting point: 231.9°C
HS-Nr: 80052000
EINECS: 231-141-8
Safety: S24/25

The prices applied to the tin and derivatives vary with the price of the raw material.

Tin metal foil (0.10 mm) pure

packaging	product code
-----------	--------------

100 g Leaf

T/1560/48

500 g Leaf

T/1560/53

Sn
CAS: 7440-31-5
MW: 118.69
Density at 20°C: 7.3
Boiling point: 2270°C
Boiling pressure: 760 mmHg
Melting point: 231.9°C
HS-Nr: 38220000
EINECS: 231-141-8
Safety: S24/25

The prices applied to the tin and derivatives vary with the price of the raw material.

Tin metal pure

packaging	product code
-----------	--------------

100 g Plastic jar

T/1600/48

500 g Plastic jar

T/1600/53

Sn
CAS: 7440-31-5
MW: 118.69
Density at 20°C: 7.3
Boiling point: 2270°C
Boiling pressure: 760 mmHg
Melting point: 231.9°C
HS-Nr: 80011000
EINECS: 231-141-8
Safety: S24/25

The prices applied to the tin and derivatives vary with the price of the raw material.

Tin(II) chloride anhydrous extra pure

SLR



packaging	product code
-----------	--------------

100 g Plastic jar

T/1645/48

SnCl₂
CAS: 7772-99-8
MW: 189.6
Density at 20°C: 3.95
Boiling point: 652°C
Boiling pressure: 760 mmHg
Melting point: 246°C
ADR/RID: 8/III
UN: 3260
HS-Nr: 28273700
EINECS: 231-868-0
Risk: R22, R34
Safety: S26, S36/37/39, S45



Tin(II) chloride dihydrate for analysis

Certified AR



packaging	product code
-----------	--------------

100 g Plastic jar

T/1654/48

250 g Plastic jar

T/1654/50

500 g Plastic jar

T/1654/53

1 kg Plastic jar

T/1654/60

SnCl₂·2H₂O
CAS: 10025-69-1
MW: 225.63
Density at 20°C: 2.71
Boiling point: 652°C
Boiling pressure: 760 mmHg
Melting point: 37 to 38°C
ADR/RID: 8/III
UN: 3260
HS-Nr: 28273700
EINECS: 231-868-0
Risk: R22, R34
Safety: S26, S36/37/39, S45



Assay: >97%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Potassium (K)	<20 ppm
Copper (Cu)	<50 ppm	Sodium (Na)	<50 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<50 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<50 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm

Typical analysis

Aluminium (Al)	<1 ppm	Manganese (Mn)	<1 ppm
Arsenic (As)	<2 ppm	Molybdenum (Mo)	<1 ppm
Barium (Ba)	<1 ppm	Nickel (Ni)	<1 ppm
Cadmium (Cd)	<1 ppm	Silver (Ag)	<1 ppm
Chromium (Cr)	<1 ppm	Strontium (Sr)	<1 ppm
Cobalt (Co)	<1 ppm	Titanium (Ti)	<1 ppm
Lithium (Li)	<1 ppm	Vanadium (V)	<1 ppm

Corrosive when wet.

Lot analysis on the label.

Tin(II) chloride dihydrate extra pure

SLR



packaging	product code
-----------	--------------

250 g Plastic jar

T/1652/50

500 g Plastic jar

T/1652/53

1 kg Plastic jar

T/1652/60

SnCl₂·2H₂O
CAS: 10025-69-1
MW: 225.63
Density at 20°C: 2.71
Boiling point: 652°C
Boiling pressure: 760 mmHg
Melting point: 37 to 38°C
ADR/RID: 8/III
UN: 3260
HS-Nr: 28273700
EINECS: 231-868-0
Risk: R22, R34
Safety: S26, S36/37/39, S45



Assay: >96%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<100 ppm
Copper (Cu)	<200 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<200 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<200 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<200 ppm	Zinc (Zn)	<200 ppm

Corrosive when wet.

Tin(IV) chloride anhydrous pure

packaging	product code
100 mL Coated Glass Bottle	T/1665/PB05
SnCl ₄ CAS: 7646-78-8 MW: 260.52 Density at 20°C: 1.18 to 1.2 Boiling point: 114°C Boiling pressure: 760 mmHg Melting point: -33°C	ADR/RID: 8/II UN: 1827 HS-Nr: 28273700 EINECS: 231-588-9 Risk: R34, R52/53 Safety: S7/8, S26, S45, S61



Tin(IV) chloride pentahydrate pure

packaging	product code
100 g Plastic jar	T/1661/48
500 g Plastic jar	T/1661/53
SnCl ₄ ·5H ₂ O CAS: 10026-06-9 MW: 350.58 Melting point: 56°C ADR/RID: 8/III	UN: 2440 HS-Nr: 28273700 EINECS: 231-588-9 Risk: R34, R52/53 Safety: S7/8, S26, S45, S61



Tin(IV) oxide pure

packaging	product code
100 g Plastic jar	T/1670/48
SnO ₂ CAS: 18282-10-5 MW: 150.69 Density at 20°C: 6.95	Melting point: 1127°C HS-Nr: 28259030 EINECS: 242-159-0 Safety: S24/25

TISAB solution pure

packaging	product code
5 L Plastic bottle	F/1325/21

HS-Nr: 38220000

Guaranteed analysis

At pH 20°C 5 to 7

Contents per Litre:

Acetic acid glacial: 12.6 ml

trans-1,2-Diaminocyclohexane-N,N,N',N'-tetra acetic acid: 0.1 g

Sodium chloride: 58 g

Sodium hydroxide AR: 8 g

Titanium standard metal solution 1000 ppm for AAS, solution HCl 2M

packaging	product code
100 mL Plastic bottle	J/8110/05
500 mL Plastic bottle	J/8110/08

HS-Nr: 38220000

Risk: R34

Safety: S26/28



Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium standard metal solution 1000 ppm for ICP, solution HCl 2M

packaging	product code
500 mL Plastic bottle	J/8331/08

HS-Nr: 38220000

Risk: R34

Safety: S26/28



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium standard metal solution 10 000 ppm for ICP, solution HCl 2M

packaging	product code
100 mL Plastic bottle	J/8330/05

HS-Nr: 38220000

Risk: R34

Safety: S26/28



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium standard metal solution 1000 ppm for ICP solution in HCL 20%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLTI52X



Density at 20°C: 1.1

Risk: R36/37/38

Safety: S26, S45



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium standard metal solution 1000 ppm for ICP solution in H₂O/HF trace, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLTI92Y
250 mL Plastic bottle	SPPLTI92T
500 mL Plastic bottle	SPPLTI92X



Density at 20°C: 1

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium standard metal solution 10 000 ppm for ICP solution in HCL 40%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLTI53X



Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45



Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Fisher Chemical packaging

A convenient and complete range
for a cleaner and safer world!


Titanium standard metal solution 10 000 ppm for ICP solution in H₂O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLT193Y
500 mL Plastic bottle	SPPLT193X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium standard metal solution 1000 ppm for ICP-MS solution in H₂O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLT192Y

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Titanium pure, metal, crushed sponge

packaging	product code
100 g Plastic jar	T/1840/48

Ti
CAS: 7440-32-6
MW: 47.88
Density at 20°C: 4.51
Boiling point: 3287°C
Boiling pressure: 760 mmHg

Melting point: 1660°C
ADR/RID: 4.2/II
HS-Nr: 81092000
EINECS: 231-142-3
Risk: R11
Safety: S16



Titanium(III) chloride solution 12.5 % w/w TiCl₃ Technical

packaging	product code
500 mL Coated Glass Bottle	T/1950/PB08

TiCl₃
CAS: 7705-07-9
MW: 154.26
Density at 20°C: 1.14 to 1.16
Melting point: 440 °C
ADR/RID: 8/III

UN: 3264
HS-Nr: 28273985
EINECS: 231-728-9
Risk: R34
Safety: S26, S28



Titanium(III) chloride solution 0.2M (0.2N) Standard solution ready to use, For volumetric analysis

packaging	product code
2.5 L Glass bottle	J/8780/17

HS-Nr: 38220000
Risk: R36/38
Safety: S26, S28



Manufactured to a tolerance of $\pm 0.1\%$.

See the full range of Standard Volumetric solution page 266.

Titanium(IV) sulfate solution 15 % w/v approx Technical

packaging	product code
1 L Coated Glass Bottle	T/1800/PB15

KOH
CAS: 13693-11-3
Density at 20°C: 1.1 to 1.14
ADR/RID: 8/III
UN: 1760

HS-Nr: 28332930
EINECS: 237-215-6
Risk: R34, R36/38
Safety: S26, S30, S45



Titanium(IV) dioxide extra pure

SLR



packaging	product code
500 g Plastic jar	T/1900/53

TiO₂
CAS: 13463-67-7
MW: 79.88
Density at 20°C: 4.23
Boiling point: 2900°C

Boiling pressure: 760 mmHg
Melting point: 1855°C
HS-Nr: 28230000
EINECS: 236-675-5
Safety: S24/25

Assay: >98%

Guaranteed analysis

Loss on ignition <0.5% Iron (Fe) <500 ppm

Titanium(III) sulfate solution approx.15 % w/v Ti₂ (SO₄)₃ Technical

packaging	product code
500 mL Coated Glass Bottle	T/2000/PB08

CAS: 10343-61-0
Density at 20°C: 1.1 to 1.3
ADR/RID: 8/III
UN: 1760

HS-Nr: 28332930
EINECS: 233-749-9
Risk: R34, R36/38
Safety: S26, S30, S45



Titan yellow C.I. 19540 pure, indicator grade

packaging	product code
25 g Glass Jar	T/2060/46

C₂₈H₁₉N₃Na₂O₆S₄
CAS: 1829-00-1
MW: 695.71

HS-Nr: 32041400
EINECS: 217-377-4
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

pH 12.0-13.0 yellow to red.

Suitable for magnesium determination.

Toluene for HPLC

Certified



packaging	product code
1 L Glass bottle	T/2306/15
2.5 L Glass bottle	T/2306/17
200 L Metal drum	T/2306/27MS
200 L Stainless steel drum	T/2306/27SS

C₇H₈
CAS: 108-88-3
MW: 92.14
Density at 20°C: 0.87
Boiling point: 111°C
Boiling pressure: 760 mmHg
Melting point: -95°C
Flash point: 4°C

ADR/RID: 3/II
UN: 1294
HS-Nr: 29023000
EINECS: 203-625-9
Risk: R11, R38, R48/20, R63, R65, R67
Safety: S36/37, S46, S62



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity <0.0015 meq/g Water <0.03%
Residue after evaporation <2 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

290 nm	<0.2 A.U.	330 nm	<0.005 A.U.
300 nm	<0.05 A.U.	340 nm	<0.005 A.U.
310 nm	<0.025 A.U.	350 nm	<0.005 A.U.
320 nm	<0.01 A.U.		

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

Toluene

for Gel Permeation Chromatography (GPC)

GPC		packaging	product code
		2.5 L Coated Glass Bottle	T/2310/PB17
C_7H_8 CAS: 108-88-3 MW: 92.14 Density at 20°C: 0.87 Boiling point: 111°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: 4°C		ADR/RID: 3/II UN: 1294 HS-Nr: 29023000 EINECS: 203-625-9 Risk: R11, R38, R48/20, R63, R65, R67 Safety: S36/37, S46, S62	
Guaranteed analysis Colour <10 APHA Water <0.03% Residue after evaporation <2 ppm			

Toluene

extra dry, for synthesis

Dried distilled		packaging	product code
		1 L Coated Glass Bottle	T/2302/PB15
		2.5 L Coated Glass Bottle	T/2302/PB17
C_7H_8 CAS: 108-88-3 MW: 92.14 Density at 20°C: 0.87 Boiling point: 111°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: 4°C		ADR/RID: 3/II UN: 1294 HS-Nr: 29023000 EINECS: 203-625-9 Risk: R11, R38, R48/20, R63, R65, R67 Safety: S36/37, S46, S62	
Assay (GC): >99.8% Guaranteed analysis Residue after evaporation <2 ppm Water <0.01%			

Toluene

for trace metal analysis

Primar

Primar		packaging	product code
		2.5 L Glass bottle	T/2301/17
C_7H_8 CAS: 108-88-3 MW: 92.14 Density at 20°C: 0.87 Boiling point: 111°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: 4°C		ADR/RID: 3/II UN: 1294 HS-Nr: 29023000 EINECS: 203-625-9 Risk: R11, R38, R48/20, R63, R65, R67 Safety: S36/37, S46, S62	
Assay (GC): >99.9% Guaranteed analysis Acidity / Alkalinity <0.0002 meq/g Manganese (Mn) <0.005 ppm Colour <5 APHA Molybdenum (Mo) <0.005 ppm Residue after evaporation <2 ppm Nickel (Ni) <0.005 ppm Water <0.05% Potassium (K) <0.05 ppm Aluminium (Al) <0.02 ppm Silver (Ag) <0.005 ppm Barium (Ba) <0.005 ppm Sodium (Na) <0.2 ppm Cadmium (Cd) <0.005 ppm Strontium (Sr) <0.005 ppm Calcium (Ca) <0.05 ppm Titanium (Ti) <0.005 ppm Chromium (Cr) <0.005 ppm Total phosphorus (P) <0.02 ppm Cobalt (Co) <0.005 ppm Total silicon (Si) <0.02 ppm Copper (Cu) <0.01 ppm Total sulphur (S) <0.1 ppm Iron (Fe) <0.05 ppm Vanadium (V) <0.005 ppm Lead (Pb) <0.005 ppm Zinc (Zn) <0.01 ppm Lithium (Li) <0.005 ppm Benzene <0.02% Magnesium (Mg) <0.02 ppm Xylenes <0.02%			

Toluene

for analysis

Certified AR

Certified AR		packaging	product code
		1 L Glass bottle	T/2300/15
		1 L Coated Glass Bottle	T/2300/PB15
		2.5 L Glass bottle	T/2300/17
		2.5 L Coated Glass Bottle	T/2300/PB17
		5 L Metal can	T/2300/21
		25 L Metal drum	T/2300/25
		25 L Metal drum	T/2300/DH25
		200 L Metal drum	T/2300/27
C_7H_8 CAS: 108-88-3 MW: 92.14 Density at 20°C: 0.87 Boiling point: 111°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: 4°C		ADR/RID: 3/II UN: 1294 HS-Nr: 29023000 EINECS: 203-625-9 Risk: R11, R38, R48/20, R63, R65, R67 Safety: S36/37, S46, S62	
Assay (GC): >99.8% Guaranteed analysis Acidity / Alkalinity <0.0001 meq/g Lead (Pb) <0.02 ppm Colour <10 APHA Magnesium (Mg) <0.05 ppm Residue after evaporation <10 ppm Potassium (K) <0.5 ppm Substances darkened by (H ₂ SO ₄) <50 APHA Sodium (Na) <1 ppm Substances reducing KMnO ₄ <0.0005% Total phosphorus (P) <0.1 ppm Water <0.03% Total silicon (Si) <0.05 ppm Calcium (Ca) <0.1 ppm Total sulphur (S) <10 ppm Copper (Cu) <0.02 ppm Zinc (Zn) <0.05 ppm Iron (Fe) <0.1 ppm Benzene <0.05 % Xylenes <0.05 %			
Typical analysis Aluminium (Al) <0.02 ppm Manganese (Mn) <0.02 ppm Barium (Ba) <0.02 ppm Molybdenum (Mo) <0.02 ppm Cadmium (Cd) <0.02 ppm Nickel (Ni) <0.02 ppm Chromium (Cr) <0.02 ppm Strontium (Sr) <0.02 ppm Cobalt (Co) <0.02 ppm Titanium (Ti) <0.02 ppm Lithium (Li) <0.02 ppm Vanadium (V) <0.02 ppm			

Toluene

for residue and pesticide analysis

Distol

Distol		packaging	product code
		1 L Glass bottle	T/2323/15
		2.5 L Glass bottle	T/2323/17
C_7H_8 CAS: 108-88-3 MW: 92.14 Density at 20°C: 0.87 Boiling point: 111°C Boiling pressure: 760 mmHg Melting point: -95°C Flash point: 4°C		ADR/RID: 3/II UN: 1294 HS-Nr: 29023000 EINECS: 203-625-9 Risk: R11, R38, R48/20, R63, R65, R67 Safety: S36/37, S46, S62	
Assay (GC): >99.8% Guaranteed analysis GC (ECD) Analysis Conform Residue after evaporation <2 ppm GC (FID) Analysis Conform Water <0.05% GC (NPD) analysis Conform			

GC Analysis
Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 pg / mL héptachloréoxide (ECD) and 5 pg / mL Parathion (NPD).
Conditions :
Column: J&W DB 5: 30m x 0.32mm x 0.1µm df.
Temperature profile:
(1) 50°C for 2 min
(2) 40°C / min until 320°C
(3) 320°C for 30 min
Injection: 5µl cold on the column.

Lot analysis on the label.
see page 279 for suitable Tap & accessories.

Acids, Bases and Water

for Trace Metal analysis

The right grade for the right detection level.
Choose between Optima®, Trace Metal® & Primar Plus® grade.
Read more page 9



Toluene extra pure, low in sulfur

SLR



packaging	product code
2.5 L Glass bottle	T/2250/17
2.5 L Coated Glass Bottle	T/2250/PB17
25 L Metal drum	T/2250/25

C_7H_8
 CAS: 108-88-3
 MW: 92.14
 Density at 20°C: 0.87
 Boiling point: 111°C
 Boiling pressure: 760 mmHg
 Melting point: -95°C
 Flash point: 4°C

ADR/RID: 3/II
 UN: 1294
 HS-Nr: 29023000
 EINECS: 203-625-9
 Risk: R11, R38, R48/20, R63, R65, R67
 Safety: S36/37, S46, S62



Guaranteed analysis

Residue after evaporation <50 ppm Sulfur compounds (SC_2) <0.0005%

see page 279 for suitable Tap & accessories.

Toluene extra pure

SLR



packaging	product code
2.5 L Glass bottle	T/2200/17
2.5 L Coated Glass Bottle	T/2200/PB17
5 L Metal can	T/2200/21
25 L Metal drum	T/2200/25
200 L Metal drum	T/2200/27

C_7H_8
 CAS: 108-88-3
 MW: 92.14
 Density at 20°C: 0.87
 Boiling point: 111°C
 Boiling pressure: 760 mmHg
 Melting point: -95°C
 Flash point: 4°C

ADR/RID: 3/II
 UN: 1294
 HS-Nr: 29023000
 EINECS: 203-625-9
 Risk: R11, R38, R48/20, R63, R65, R67
 Safety: S36/37, S46, S62



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity <0.0005 meq/g	Iron (Fe) <5 ppm
Colour <10 APHA	Lead (Pb) <2 ppm
Residue after evaporation <30 ppm	Magnesium (Mg) <2 ppm
Substances darkened by (H_2SO_4) <50 APHA	Potassium (K) <2 ppm
Substances reducing $KMnO_4$ <0.001%	Sodium (Na) <5 ppm
Water <0.05%	Total phosphorus (P) <2 ppm
Calcium (Ca) <5 ppm	Total silicon (Si) <2 ppm
Copper (Cu) <2 ppm	Total sulphur (S) <50 ppm
	Zinc (Zn) <2 ppm

see page 279 for suitable Tap & accessories.

Toluene Technical

packaging	product code
1 L Coated Glass Bottle	T/2150/PB15
2.5 L Glass bottle	T/2150/17
2.5 L Coated Glass Bottle	T/2150/PB17
25 L Metal drum	T/2150/25

C_7H_8
 CAS: 108-88-3
 MW: 92.14
 Density at 20°C: 0.87
 Boiling point: 111°C
 Boiling pressure: 760 mmHg
 Melting point: -95°C
 Flash point: 4°C

ADR/RID: 3/II
 UN: 1294
 HS-Nr: 29023000
 EINECS: 203-625-9
 Risk: R11, R38, R48/20, R63, R65, R67
 Safety: S36/37, S46, S62



see page 279 for suitable Tap & accessories.

Toluene-4-sulfonic acid extra pure

SLR



packaging	product code
100 g Plastic jar	T/2500/48
500 g Plastic jar	T/2500/53

$C_7H_8SO_3 \cdot H_2O$
 CAS: 6192-52-5
 MW: 190.22
 Melting point: 103 to 106°C
 Flash point: 180°C
 ADR/RID: 8/III

UN: 2585
 HS-Nr: 29041000
 EINECS: 203-180-0
 Risk: R36/37/38
 Safety: S26, S37



Assay: >98%

Guaranteed analysis

Calcium (Ca) <500 ppm	Potassium (K) <2000 ppm
Copper (Cu) <50 ppm	Sodium (Na) <500 ppm
Iron (Fe) <100 ppm	Total chloride (Cl) <0.02%
Lead (Pb) <50 ppm	Total silicon (Si) <200 ppm
Magnesium (Mg) <200 ppm	Zinc (Zn) <100 ppm

Toluene-4-sulfonyl chloride extra pure

SLR



packaging	product code
250 g Glass packaging	T/2550/50

$C_7H_7ClO_2S$
 CAS: 98-59-9
 MW: 190.65
 Boiling point: 134°C
 Boiling pressure: 10 mmHg
 Melting point: 67 to 69°C
 Flash point: 128°C

ADR/RID: 8/II
 UN: 3261
 HS-Nr: 29049090
 EINECS: 202-684-8
 Risk: R29, R34
 Safety: S26, S36/37/39, S45



Assay: >98%

p-Toluic acid extra pure

SLR



packaging	product code
100 g Plastic jar	T/2590/48

$C_8H_8O_2$
 CAS: 99-94-5
 MW: 136.15
 Boiling point: 274 to 275°C
 Boiling pressure: 760 mmHg

Melting point: 179 to 182°C
 HS-Nr: 29163900
 EINECS: 202-803-3
 Risk: R22
 Safety: S22



Assay: >98%

Guaranteed analysis

Residue after ignition <0.5%

p-Toluidine extra pure

SLR



packaging	product code
500 g Glass packaging	T/2650/53

C_7H_9N
 CAS: 106-49-0
 MW: 107.16
 Boiling point: 200°C
 Boiling pressure: 760 mmHg
 Melting point: 41 to 46°C
 Flash point: 87°C

ADR/RID: 6.1/II
 UN: 3451
 HS-Nr: 29214310
 EINECS: 203-403-1
 Risk: R23/24/25, R36, R40, R43, R50
 Safety: S28A, S36/37, S45, S61



Assay (GC): >98%

Toluidine blue C.I. 52040 pure

packaging	product code
25 g Glass packaging	T/2660/46

$C_{15}H_{16}N_2SCl$
 CAS: 92-31-9
 MW: 305.83

HS-Nr: 32041300
 EINECS: 202-146-2
 Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Total hardness indicator tablets

pure, indicator grade

packaging	product code
100 Tablets	T/2750/79

HS-Nr: 38220000

For use as an indicator in conjunction with EDTA solution.

Trichloroacetic acid

for analysis

Certified AR



packaging	product code
250 g Plastic jar	T/3000/50
500 g Plastic jar	T/3000/53
1 kg Plastic jar	T/3000/60

$C_2HCl_3O_2$
 CAS: 76-03-9
 MW: 163.39
 Density at 20°C: 1.62
 Boiling point: 196°C
 Boiling pressure: 760 mmHg
 Melting point: 52 to 58°C

ADR/RID: 8/II
 UN: 1839
 HS-Nr: 29154000
 EINECS: 200-927-2
 Risk: R35, R50/S3
 Safety: S26, S36/37/39,
 S45, S60, S61



Assay: >99.5%

Guaranteed analysis

Substances		Sodium (Na)	<20 ppm
reducing $KMnO_4$	<0.0002%	Total chloride (Cl)	<0.001 %
Calcium (Ca)	<10 ppm	Total nitrogen (N)	<50 ppm
Copper (Cu)	<2 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<20 ppm
Lead (Pb)	<2 ppm	Total sulphur (S)	<200 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<10 ppm		

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Trichloroacetic acid

extra pure

SLR



packaging	product code
250 g Plastic jar	T/2950/50
500 g Plastic jar	T/2950/53
1 kg Plastic jar	T/2950/60

$C_2HCl_3O_2$
 CAS: 76-03-9
 MW: 163.39
 Density at 20°C: 1.62
 Boiling point: 196°C
 Boiling pressure: 760 mmHg
 Melting point: 52 to 58°C

ADR/RID: 8/II
 UN: 1839
 HS-Nr: 29154000
 EINECS: 200-927-2
 Risk: R35, R50/S3
 Safety: S26, S36/37/39,
 S45, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<10 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<10 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<500 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm

Trichloroethylene

for analysis, stabilized with triethylamine

Certified AR



packaging	product code
500 mL Glass bottle	T/3101/08
2.5 L Coated Glass Bottle	T/3101/PB17

C_2HCl_3
 CAS: 79-01-6
 MW: 131.39
 Density at 20°C: 1.46
 Boiling point: 87°C
 Boiling pressure: 760 mmHg
 Melting point: -86°C

ADR/RID: 6.1/III
 UN: 1710
 HS-Nr: 29032200
 EINECS: 201-167-4
 Risk: R45, R36/38, R52/53, R67
 Safety: S53, S45, S61



Assay (GC): >99.8%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Magnesium (Mg)	<0.2 ppm
Colour	<10 APHA	Manganese (Mn)	<0.02 ppm
Residue after evaporation	<20 ppm	Molybdenum (Mo)	<0.02 ppm
Water	<0.02%	Nickel (Ni)	<0.02 ppm
Aluminium (Al)	<0.02 ppm	Potassium (K)	<0.5 ppm
Barium (Ba)	<0.02 ppm	Sodium (Na)	<0.5 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Calcium (Ca)	<0.5 ppm	Titanium (Ti)	<0.02 ppm
Chlorine	<5 ppm	Total phosphorus (P)	<0.1 ppm
Chromium (Cr)	<0.02 ppm	Total silicon (Si)	<0.05 ppm
Cobalt (Co)	<0.02 ppm	Total sulphur (S)	<0.5 ppm
Copper (Cu)	<0.05 ppm	Vanadium (V)	<0.02 ppm
Iron (Fe)	<0.05 ppm	Zinc (Zn)	<0.1 ppm
Lead (Pb)	<0.05 ppm	Triethylamine	0.02 to 0.04%
Lithium (Li)	<0.02 ppm		

Lot analysis on the label.

Stabilised with 0.04% Triethylamine

Trichloroethylene

extra pure, stabilized with triethylamine

SLR



packaging	product code
500 mL Glass bottle	T/3100/08
2.5 L Glass bottle	T/3100/17
2.5 L Coated Glass Bottle	T/3100/PB17
5 L Metal can	T/3100/21
25 L Metal drum	T/3100/25

C_2HCl_3
 CAS: 79-01-6
 MW: 131.39
 Density at 20°C: 1.46
 Boiling point: 87°C
 Boiling pressure: 760 mmHg
 Melting point: -86°C

ADR/RID: 6.1/III
 UN: 1710
 HS-Nr: 29032200
 EINECS: 201-167-4
 Risk: R45, R36/38, R52/53, R67
 Safety: S53, S45, S61



Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.002 meq/g	Magnesium (Mg)	<2 ppm
Colour	<10 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<5 ppm
Water	<0.05%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Chlorine	<10 ppm	Total sulphur (S)	<2 ppm
Copper (Cu)	<2 ppm	Zinc (Zn)	<2 ppm
Iron (Fe)	<2 ppm	Triethylamine	0.02 to 0.03%
Lead (Pb)	<2 ppm		

Stabilised with 0.04% Triethylamine.

see page 279 for suitable Tap & accessories.

Trichloroethylene

Technical, stabilized

packaging	product code
2.5 L Coated Glass Bottle	T/3050/PB17
25 L Metal drum	T/3050/25

C_2HCl_3
 CAS: 79-01-6
 MW: 131.39
 Density at 20°C: 1.463 to 1.465
 Boiling point: 87°C
 Boiling pressure: 760 mmHg
 Melting point: -86°C

ADR/RID: 6.1/III
 UN: 1710
 HS-Nr: 29032200
 EINECS: 201-167-4
 Risk: R45, R36/38, R52/53, R67
 Safety: S53, S45, S61



see page 279 for suitable Tap & accessories.

Standard Volumetric solution

NIST Certified & Conform to Pharmacopeia

Read more on page 266



Triethanolamine for analysis

Certified AR



packaging	product code
500 mL Glass bottle	T/3160/08
2.5 L Glass bottle	T/3160/17

C₆H₁₅NO₃
CAS: 102-71-6
MW: 149.19
Density at 20°C: 1.12
Boiling point: 360°C
Boiling pressure: 760 mmHg
Melting point: 21°C

Flash point: 190°C
ADR/RID: 8/III
UN: 3259
HS-Nr: 29221310
EINECS: 203-049-8
Risk: R36
Safety: S26, S39



Assay (GC): >99%

Guaranteed analysis

Residue after ignition	<0.005%	Potassium (K)	<5 ppm
Water	<0.2%	Sodium (Na)	<10 ppm
Calcium (Ca)	<2 ppm	Total phosphorus (P)	<0.5 ppm
Chloride (Cl)	<0.0001 %	Total silicon (Si)	<5 ppm
Copper (Cu)	<0.5 ppm	Total sulphur (S)	<1 ppm
Iron (Fe)	<1 ppm	Zinc (Zn)	<0.5 ppm
Lead (Pb)	<0.5 ppm	Diethanolamine	<0.5 %
Magnesium (Mg)	<1 ppm	Ethanolamine	<0.1 %

Typical analysis

Aluminium (Al)	<0.5 ppm	Manganese (Mn)	<0.5 ppm
Barium (Ba)	<0.5 ppm	Molybdenum (Mo)	<0.5 ppm
Cadmium (Cd)	<0.5 ppm	Nickel (Ni)	<0.5 ppm
Chromium (Cr)	<0.5 ppm	Strontium (Sr)	<0.5 ppm
Cobalt (Co)	<0.5 ppm	Titanium (Ti)	<0.5 ppm
Lithium (Li)	<0.5 ppm	Vanadium (V)	<0.5 ppm

Lot analysis on the label.

Triethanolamine extra pure

SLR



packaging	product code
500 mL Glass bottle	T/3150/08
2.5 L Glass bottle	T/3150/17
25 L Metal drum	T/3150/25

C₆H₁₅NO₃
CAS: 102-71-6
MW: 149.19
Density at 20°C: 1.12
Boiling point: 360°C
Boiling pressure: 760 mmHg
Melting point: 21°C

Flash point: 190°C
ADR/RID: 8/III
UN: 3259
HS-Nr: 29221310
EINECS: 203-049-8
Risk: R36
Safety: S26, S39



Assay (GC): >97%

Guaranteed analysis

Residue after ignition	<0.05%	Magnesium (Mg)	<5 ppm
Water	<1%	Potassium (K)	<20 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<50 ppm
Chloride (Cl)	<0.0005%	Total phosphorus (P)	<2 ppm
Copper (Cu)	<2 ppm	Total silicon (Si)	<2 ppm
Iron (Fe)	<5 ppm	Total sulphur (S)	<5 ppm
Lead (Pb)	<2 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

Triethylamine for HPLC

Certified



packaging	product code
250 mL Glass bottle	T/3203/07

C₆H₁₅N
CAS: 121-44-8
MW: 101.19
Density at 20°C: 0.73
Boiling point: 90°C
Boiling pressure: 760 mmHg
Melting point: -115°C
Flash point: -11°C

ADR/RID: 3(8)/II
UN: 1296
HS-Nr: 29211910
EINECS: 204-469-4
Risk: R11, R20/21/22, R35
Safety: S3, S16, S26, S29, S36/37/39, S45



Assay (GC): >99.5%

Guaranteed analysis

Residue after evaporation	<2 ppm	Iron (Fe)	<1 ppm
Water	<0.05%	Lead (Pb)	<0.02 ppm

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

254 nm (sol. aqu. 0.25 M) .. <0.125 A.U.

Lot analysis on the label.

Filtered to 0.2 µm.

Triethylamine for analysis

Certified AR



packaging	product code
1 L Glass bottle	T/3201/15
2.5 L Coated Glass Bottle	T/3201/PB17
25 L Metal drum	T/3201/25

C₆H₁₅N
CAS: 121-44-8
MW: 101.19
Density at 20°C: 0.73
Boiling point: 90°C
Boiling pressure: 760 mmHg
Melting point: -115°C
Flash point: -11°C

ADR/RID: 3(8)/II
UN: 1296
HS-Nr: 29211910
EINECS: 204-469-4
Risk: R11, R20/21/22, R35
Safety: S3, S16, S26, S29, S36/37/39, S45



Assay (GC): >99.5%

Guaranteed analysis

Colour	<10 APHA	Potassium (K)	<0.5 ppm
Residue after evaporation	<50 ppm	Sodium (Na)	<1 ppm
Water	<0.05%	Total phosphorus (P)	<0.2 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.1 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<0.5 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Lead (Pb)	<0.05 ppm	Diethylamine	<0.1 %
Magnesium (Mg)	<0.2 ppm		

Typical analysis

Aluminium (Al)	<0.05 ppm	Manganese (Mn)	<0.05 ppm
Barium (Ba)	<0.05 ppm	Molybdenum (Mo)	<0.05 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Strontium (Sr)	<0.05 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.05 ppm
Lithium (Li)	<0.05 ppm	Vanadium (V)	<0.05 ppm

Lot analysis on the label.

Triethylamine extra pure

SLR



packaging	product code
500 mL Glass bottle	T/3200/08
2.5 L Glass bottle	T/3200/17
2.5 L Coated Glass Bottle	T/3200/PB17

C₆H₁₅N
CAS: 121-44-8
MW: 101.19
Density at 20°C: 0.73
Boiling point: 90°C
Boiling pressure: 760 mmHg
Melting point: -115°C
Flash point: -11°C

ADR/RID: 3(8)/II
UN: 1296
HS-Nr: 29211910
EINECS: 204-469-4
Risk: R11, R20/21/22, R35
Safety: S3, S16, S26, S29, S36/37/39, S45

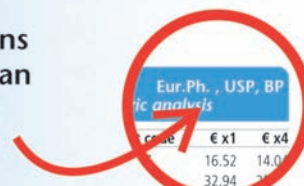


Assay (GC): >99%

Guaranteed analysis

Colour	<20 APHA	Potassium (K)	<2 ppm
Residue after evaporation	<100 ppm	Sodium (Na)	<5 ppm
Water	<0.2%	Total phosphorus (P)	<2 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<5 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm
Lead (Pb)	<2 ppm	Diethylamine	<0.5%
Magnesium (Mg)	<2 ppm		

The ready to use solutions
comply with the European
Pharmacopeia
Discover them
at page 266



Triethylene glycol extra pure

SLR

Specified	packaging	product code
	500 mL Glass bottle	T/3270/08
	2.5 L Glass bottle	T/3270/17
$C_6H_{14}O_4$ CAS: 112-27-6 MW: 150.18 Density at 20°C: <1.125 Boiling point: 285°C Boiling pressure: 760 mmHg Melting point: -7°C Flash point: 165°C HS-Nr: 29094910 EINECS: 203-953-2 Safety: S24/25		
Assay (GC): >95%		
Guaranteed analysis		
Acidity <0.005 meq/g		

Trifluoroacetic acid for HPLC

Certified

HPLC	packaging	product code
	25 mL Coated Glass Bottle	T/3258/04
	100 mL Coated Glass Bottle	T/3258/PB05
$C_2HF_3O_2$ CAS: 76-05-1 MW: 114.02 Density at 20°C: 1.54 Boiling point: 72°C Boiling pressure: 760 mmHg Melting point: -15°C ADR/RID: 8/I UN: 2699 HS-Nr: 29159080 EINECS: 200-929-3 Risk: R20, R35, R52/53 Safety: S9, S26, S27, S28A, S45, S61		
Assay: >99%		
Absorbance specification		
Max. Absorbance (1 cm cell v HPLC water)		
210 nm	<0.6 A.U.	240 nm <0.05 A.U.
220 nm	<0.2 A.U.	250 nm <0.01 A.U.
230 nm	<0.1 A.U.	
Lot analysis on the label.		
Filtered to 0.2 µm.		

Trifluoroacetic acid solution 1% HPLC for gradient analysis

Certified

HPLC	packaging	product code
	500 mL Coated Glass Bottle	J/8800/PB08
HS-Nr: 29159080 Assay: 0.98 to 1.02% Absorbance specification Max. Absorbance (1 cm cell v HPLC water) Gradient (max eluted peak) <0.005 U An- son Conditions: Column: C18 Reverse Phase Flow Rate: 3 ml/min Wavelength: 254 nm Solvent A: Water + 10% Buffer Solvent B: Acetonitrile + 10% Buffer Gradient: 10 min. At 5% solvent B followed by a linear gradient to 95% solvent B over 15 min.		

Trifluoroacetic acid extra pure

SLR

Specified	packaging	product code
	100 mL Coated Glass Bottle	T/3256/PB05
$C_2HF_3O_2$ CAS: 76-05-1 MW: 114.02 Density at 20°C: 1.54 Boiling point: 72°C Boiling pressure: 760 mmHg Melting point: -15°C ADR/RID: 8/I UN: 2699 HS-Nr: 29159080 EINECS: 200-929-3 Risk: R20, R35, R52/53 Safety: S9, S26, S27, S28A, S45, S61		
Assay: >99.5%		

Trifluoroacetic anhydride extra pure

SLR

Specified	packaging	product code
	100 mL Coated Glass Bottle	T/3257/PB05
$C_4F_6O_3$ CAS: 407-25-0 MW: 210.03 Density at 20°C: <1.51 Boiling point: 39.1°C Boiling pressure: 760 mmHg Melting point: -63.5°C ADR/RID: 8/I UN: 3265 HS-Nr: 29159090 EINECS: 206-982-9 Risk: R14, R35, R52/53 Safety: S8, S26, S36/37/39, S45, S61		
Assay: >99%		

Tri-n-hexylamine for HPLC

Certified

HPLC	packaging	product code
	100 mL Coated Glass Bottle	T/3296/PB05
$(CH_3(CH_2)_5)_3N$ CAS: 102-86-3 MW: 269.52 ADR/RID: 8/II UN: 2735 HS-Nr: 29211990 EINECS: 203-062-9 Risk: R36/37/38		
HPLC reagent suitable for HPLC analysis.		

1,2,3-Trihydroxybenzene See Pyrogallol, page 221



1,3,5-Trihydroxybenzene dihydrate

See Phloroglucinol dihydrate, page 198



3,4,5-Trihydroxybenzoic acid pure

packaging	product code
100 g Plastic Jar	T/3300/48
$C_7H_6O_5 \cdot H_2O$ CAS: 149-91-7 MW: 188.14 Density at 20°C: 1.69 Melting point: 253 °C HS-Nr: 29182980 EINECS: 205-749-9 Risk: R36/37/38 Safety: S24/25	
Guaranteed analysis	
IR Analysis Conform	

Triiodomethane See Iodoform, page 130



3-Trimethoxysilyl-propyl-methacrylate pure

packaging	product code
100 g Glass bottle	T/3350/48
$C_{10}H_{20}O_5Si$ CAS: 2530-85-0 MW: 248.35 ADR/RID: 3/III HS-Nr: 29310000 EINECS: 219-785-8 Risk: R36/38, R43 Safety: S26, S28	
Guaranteed analysis	
IR Analysis Conform	

Reagents, Solvents & Volumetric solutions comply with the European Pharmacopeia

Read more on page 191



Trimethylanilinium hydroxide solution 0.1 M for gas chromatography

packaging		product code	
50 mL	Glass bottle	T/3510/10	
$C_9H_{15}NO$ CAS: 1899-02-1 MW: 153.23 Flash point: 10°C ADR/RID: 3(6.1)/II UN: 1230		HS-Nr: 29051100 EINECS: 217-592-3 Risk: R11, R23/24/25, R36/38, R39/23/24/25 Safety: S7, S16, S26, S36/37/39, S45	
Guaranteed analysis			
IR Analysis		Conform	

Trimethylchlorosilane

See Chlorotrimethylsilane, page 67



Trimethylene glycol

See Propane-1,3-diol, page 218



2,2,4-Trimethylpentane for HPLC

Certified



packaging		product code	
1 L	Glass bottle	T/3606/15	
2.5 L	Glass bottle	T/3606/17	
5 L	Aluminium drum	T/3606/21	
200 L	Stainless steel drum	T/3606/27SS	
C_8H_{18} CAS: 540-84-1 MW: 114.23 Density at 20°C: 0.69 Boiling point: 98 to 99°C Boiling pressure: 760 mmHg Melting point: -107°C Flash point: -12°C		ADR/RID: 3/II UN: 1262 HS-Nr: 38220000 EINECS: 208-759-1 Risk: R11, R38, R50/53, R65, R67 Safety: S9, S16, S29, S33, S60, S61, S62	

Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0002 meq/g	Water	<0.01%
Residue after evaporation	<2 ppm		

Absorbance specification

Max. Absorbance (1cm cell v HPLC water)

200 nm	<0.4 A.U.	230 nm	<0.02 A.U.
210 nm	<0.2 A.U.	240 nm	<0.005 A.U.
220 nm	<0.1 A.U.	250 nm	<0.005 A.U.

Lot analysis on the label including an absorbance curve.

Filtered to 0.2 µm.

see page 279 for suitable Tap & accessories.

2,2,4-Trimethylpentane for residue and pesticide analysis

Distol



packaging		product code	
1 L	Glass bottle	T/3608/15	
2.5 L	Glass bottle	T/3608/17	
C_8H_{18} CAS: 540-84-1 MW: 114.23 Density at 20°C: 0.69 Boiling point: 98 to 99°C Boiling pressure: 760 mmHg Melting point: -107°C Flash point: -12°C		ADR/RID: 3/II UN: 1262 HS-Nr: 29011000 EINECS: 208-759-1 Risk: R11, R38, R50/53, R65, R67 Safety: S9, S16, S29, S33, S60, S61, S62	
Assay (GC): >99.5%			

Guaranteed analysis

GC (ECD) Analysis	Conform	Residue after evaporation	<2 ppm
GC (FID) Analysis	Conform	Water	<0.02%
GC (NPD) analysis	Conform		

Analysis of pesticides: from the retention time of Lindane, after concentration of 2500 times, no impurity peak higher than that obtained with 10 µg / mL héptachloréoxide (ECD) and 5 µg / mL Parathion (NPD).

Analysis of hydrocarbons: no impurity chain longer than the dodecane is present at a concentration greater than 0.01 ppm (FID).

Conditions :

Column: J&W DB 5: 30m x 0.32mm x 0.1 µm df.

Temperature profile:

(1) 50°C for 2 min

(2) 40°C / min until 320°C

(3) 320°C for 30 min

Injection: 5 µl cold on the column.

2,2,4-Trimethylpentane for analysis

Certified AR



packaging		product code
1 L	Glass bottle	T/3601/15
2.5 L	Glass bottle	T/3601/17
25 L	Metal drum	T/3601/25

C_8H_{18} CAS: 540-84-1 MW: 114.23 Density at 20°C: 0.69 Boiling point: 98 to 99°C Boiling pressure: 760 mmHg Melting point: -107°C Flash point: -12°C	ADR/RID: 3/II UN: 1262 HS-Nr: 29011000 EINECS: 208-759-1 Risk: R11, R38, R50/53, R65, R67 Safety: S9, S16, S29, S33, S60, S61, S62	
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Assay (GC): >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Magnesium (Mg)	<0.2 ppm
Colour	<10 APHA	Potassium (K)	<0.2 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<0.5 ppm
Water	<0.02%	Total phosphorus (P)	<0.1 ppm
Calcium (Ca)	<0.5 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.1 ppm	Total sulphur (S)	<1 ppm
Iron (Fe)	<0.2 ppm	Zinc (Zn)	<0.2 ppm
Lead (Pb)	<0.1 ppm		

Typical analysis

Aluminium (Al)	<0.05 ppm	Manganese (Mn)	<0.05 ppm
Barium (Ba)	<0.05 ppm	Molybdenum (Mo)	<0.05 ppm
Cadmium (Cd)	<0.05 ppm	Nickel (Ni)	<0.05 ppm
Chromium (Cr)	<0.05 ppm	Strontium (Sr)	<0.05 ppm
Cobalt (Co)	<0.05 ppm	Titanium (Ti)	<0.05 ppm
Lithium (Li)	<0.05 ppm	Vanadium (V)	<0.05 ppm

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

2,2,4-Trimethylpentane extra pure

SLR



packaging		product code
2.5 L	Glass bottle	T/3600/17
2.5 L	Coated Glass Bottle	T/3600/PB17
5 L	Metal can	T/3600/21
25 L	Metal drum	T/3600/25
200 L	Metal drum	T/3600/27

C_8H_{18} CAS: 540-84-1 MW: 114.23 Density at 20°C: 0.69 Boiling point: 98 to 99°C Boiling pressure: 760 mmHg Melting point: -107°C Flash point: -12°C	ADR/RID: 3/II UN: 1262 HS-Nr: 29011000 EINECS: 208-759-1 Risk: R11, R38, R50/53, R65, R67 Safety: S9, S16, S29, S33, S60, S61, S62	
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Assay (GC): >99%

Guaranteed analysis

Acidity / Alkalinity	<0.001 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<100 ppm	Potassium (K)	<2 ppm
Water	<0.1%	Sodium (Na)	<5 ppm
Calcium (Ca)	<5 ppm	Total silicon (Si)	<2 ppm
Copper (Cu)	<2 ppm	Total sulphur (S)	<10 ppm
Iron (Fe)	<5 ppm	Zinc (Zn)	<2 ppm

see page 279 for suitable Tap & accessories.

NO-Bis (Trimethylsilyl) acetamide (BSA) for gas chromatography

packaging	product code
10 mL Glass bottle	B/3640/03
$C_8H_{21}NO_2Si_2$ CAS: 10416-59-8 MW: 203.43 Density at 20°C: 0.82 Boiling point: 71 to 73°C Boiling pressure: 35 mmHg Melting point: 24°C Flash point: 42°C	ADR/RID: 3(8)/II UN: 2920 HS-Nr: 29310000 EINECS: 233-892-7 Risk: R11, R14, R22, R34 Safety: S26, S30, S36, S43A, S7/8, S16
Assay (GC): >90%	



Trimethylsilyl chloride

See Chlorotrimethylsilane, page 67



N-Trimethylsilylimidazole for gas chromatography

packaging	product code
25 g Glass bottle	T/3622/46
$C_6H_{12}N_2Si$ CAS: 18156-74-6 MW: 140.26 Density at 20°C: 0.95 Boiling point: 93 to 94°C Boiling pressure: 13 mmHg Melting point: -42°C	Flash point: 5°C ADR/RID: 3/II UN: 1993 HS-Nr: 38220000 EINECS: 242-040-3 Risk: R11, R14, R36/37/38 Safety: S16, S26, S37/39
Assay (GC): >98%	



N,N-Bis(Trimethylsilyl) trifluoroacetamide for gas chromatography

packaging	product code
10 g Glass bottle	B/3647/45
50 g Glass bottle	B/3647/47
$C_8H_{18}F_3NOSi_2$ CAS: 21149-38-2 MW: 257.4 ADR/RID: 8(3)/II UN: 2920	HS-Nr: 38220000 EINECS: 247-103-9 Risk: R10 Safety: S16, S24/25
Assay (GC): >98%	

Triphenylamine pure

packaging	product code
5 g Glass packaging	T/3630/44
$C_{18}H_{15}N$ CAS: 603-34-9 MW: 245.33 Boiling point: 347 to 348°C Boiling pressure: 760 mmHg	Melting point: 125 to 127°C HS-Nr: 29214980 EINECS: 210-035-5 Risk: R36/37/38 Safety: S26, S37/39
Guaranteed analysis	
IR Analysis Conform	



Triphenyl phosphate pure

packaging	product code
500 g Plastic jar	T/3650/53
$C_{18}H_{15}PO_4$ CAS: 115-86-6 MW: 326.29 Boiling point: 370°C Boiling pressure: 760 mmHg Melting point: 47 to 53°C Flash point: 220°C	ADR/RID: 9/III UN: 3077 HS-Nr: 29190019 EINECS: 204-112-2 Risk: R50/53 Safety: S60, S61
Guaranteed analysis	
IR Analysis Conform	



Triphenyl phosphine pure

packaging	product code
100 g Plastic jar	T/3652/48
$C_{18}H_{15}P$ CAS: 603-35-0 MW: 262.29 Boiling point: 377°C Boiling pressure: 760 mmHg Melting point: 78.5 to 81.5°C	Flash point: 181°C ADR/RID: 6.1/II HS-Nr: 29310000 EINECS: 210-036-0 Risk: R22, R43, R53 Safety: S26, S36/37/39, S61
Guaranteed analysis	
Melting Point tested 78 to 82°C	



N-Tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid for HPLC, biological buffer

packaging	product code
100 g Plastic jar	T/3720/48
$C_6H_{15}NO_6S$ CAS: 7365-44-8 MW: 229.25 Melting point: 223 to 225°C	HS-Nr: 29225000 EINECS: 230-906-3 Safety: S24/25
Assay: >99%	
Guaranteed analysis	
PKa 37°C 7.15 to 7.17	Lead (Pb) <10 ppm
Residue after ignition <0.2%	Sulfate (SO ₄) <0.01%
Water <0.2%	Total chloride (Cl) <0.02%
Iron (Fe) <5 ppm	
Absorbance specification	
Max. Absorbance (1cm cell v HPLC water)	
250 nm 0.1 A.U.	

Tris(hydroxymethyl) methylamine, 'Tris buffer' SLR extra pure

packaging	product code
100 g Plastic jar	T/3710/48
250 g Plastic jar	T/3710/50
1 kg Plastic jar	T/3710/60
$C_4H_{11}NO_3$ CAS: 77-86-1 MW: 121.14 Boiling point: 219 to 220°C Boiling pressure: 10 mmHg	Melting point: >168.5°C HS-Nr: 29221980 EINECS: 201-064-4 Risk: R36/37/38 Safety: S26, S37/39
Assay: >99%	
Guaranteed analysis	
Calcium (Ca) <100 ppm	Sodium (Na) <200 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <5 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <5 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <50 ppm	Total sulphur (S) <200 ppm
Potassium (K) <200 ppm	Zinc (Zn) <50 ppm



Triton Kaowool® epsilon ceramic fibre pure

packaging	product code
500 g Plastic jar	T/3740/53
HS-Nr: 38220000 Risk: R20, R36/37/38, R40 Safety: S36/37/39, S24/25	



Save money!
Order 4 bottles in a box



Triton X-100® extra pure

SLR



packaging	product code
500 mL Plastic bottle	T/3751/08
2.5 L Plastic bottle	T/3751/17

$C_{34}H_{62}O_{11}$
CAS: 9002-93-1
MW: 646.85
Density at 20°C: <1.062
Boiling point: 270°C
Melting point: 6°C

Flash point: 274°C
ADR/RID: 9/III
UN: 3082
HS-Nr: 34021300
Risk: R22, R36, R41
Safety: S26, S39



Triton X-114® pure

packaging	product code
500 mL Plastic bottle	T/3757/08

$C_{30}H_{54}O_9$
CAS: 9036-19-5
MW: 558.75
Density at 20°C: <1.05

UN: 3082
HS-Nr: 38220000
Risk: R22, R36
Safety: S26



Trypsin pure, from beef pancreas

packaging	product code
100 g Plastic jar	T/3760/48

CAS: 9002-07-7
HS-Nr: 38220000
EINECS: 232-650-8

Risk: R36/37/38, R42
Safety: S22, S24, S26, S36/37



Guaranteed analysis

Activity 0.4 to 0.6 U Anson

L-Tryptophan extra pure

SLR

packaging	product code
25 g Plastic jar	T/3770/46

$C_{11}H_{12}N_2O_2$
CAS: 73-22-3
MW: 204.23
Boiling pressure: 760 mmHg

Melting point: 280-285°C
HS-Nr: 29339090
EINECS: 200-795-6
Safety: S24/25

Assay: >99%

Guaranteed analysis

Loss on drying <0.5% Iron (Fe) <10 ppm
Residue after ignition <0.1% Lead (Pb) <10 ppm
Specific rotation (α 20/D) ... +33° to -30°

Tungsten standard metal solution 1000 ppm for AAS, solution NH3 0.1M

packaging	product code
100 mL Plastic bottle	J/8120/05
500 mL Plastic bottle	J/8120/08

HS-Nr: 28259040



Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tungsten standard metal solution 1000 ppm for ICP, solution NH3 0.1M

packaging	product code
500 mL Plastic bottle	J/8336/08

HS-Nr: 38220000



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tungsten standard metal solution 1000 ppm for ICP solution in HNO3 1%/HF 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLW22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tungsten standard metal solution 1000 ppm for ICP solution in H2O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLW92Y
500 mL Plastic bottle	SPPLW92X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tungsten standard metal solution 10 000 ppm for ICP solution in HNO3 2%/HF 5%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLW23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Tungsten standard metal solution 10 000 ppm for ICP solution in H2O/HF trace, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLW93Y
500 mL Plastic bottle	SPPLW93X

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

pH Buffers

NIST Certified Standard
Solution & Concentrate
A full range to discover on page 45



Tungstophosphoric acid hydrate Certified AR
for analysis

packaging	product code
100 g Plastic Jar	T/3902/48

H3PO4.12WO3.aq
CAS: 12501-23-4
MW: 2880.17
ADR/RID: 8/III
UN: 3260

HS-Nr: 28111900
EINECS: 235-087-6
Risk: R34
Safety: S24/25

Guaranteed analysis

Aluminium (Al)	<5 ppm	Potassium (K)	<500 ppm
Barium (Ba)	<5 ppm	Silver (Ag)	<5 ppm
Cadmium (Cd)	<5 ppm	Sodium (Na)	<500 ppm
Calcium (Ca)	<50 ppm	Strontium (Sr)	<5 ppm
Copper (Cu)	<10 ppm	Titanium (Ti)	<5 ppm
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.001%
Lead (Pb)	<10 ppm	Total nitrogen (N)	<20 ppm
Lithium (Li)	<5 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<50 ppm	Zinc (Zn)	<50 ppm
Nickel (Ni)	<5 ppm		

Lot analysis on the label.

Tungstosilicic acid hydrate SLR
extra pure

packaging	product code
100 g Plastic jar	T/3940/48

SiO2.12WO3.26H2O
CAS: 12027-38-2
HS-Nr: 28111900
EINECS: 234-719-8

Turpentine oil SLR
extra pure, rectified

packaging	product code
1 L Glass bottle	T/4050/15

CAS: 8006-64-2
Density at 20°C: 0.97 to 0.99
ADR/RID: 3/III
UN: 1299
HS-Nr: 38220000

EINECS: 232-350-7
Risk: R10, R20/21/22, R36/38, R43, R51/53, R65
Safety: S36/37, S46, S61, S62

Turpentine substitute SLR
extra pure

packaging	product code
2.5 L Glass bottle	T/4200/17
25 L Metal drum	T/4200/25

CAS: 64742-88-7
Density at 20°C: 0.76 to 0.78
ADR/RID: 3/III
UN: 1300

HS-Nr: 27101190
Risk: R10, R51/53, R65
Safety: S37, S43, S61, S62

see page 279 for suitable Tap & accessories.

Tween® 20
pure

packaging	product code
1 kg Glass bottle	T/4206/60

C58H114O26
CAS: 9005-64-5
Density at 20°C: 1.05
Melting point: 0.1°C

Flash point: >200°C
HS-Nr: 34021300
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Tween® 40
pure

packaging	product code
1 kg Glass bottle	T/4205/60

CAS: 9005-66-7
Density at 20°C: 1.05
Melting point: 0.1°C

Flash point: >200°C
HS-Nr: 34021300
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Tween® 80
pure

packaging	product code
1 kg Glass bottle	T/4203/60

CAS: 9005-65-6
MW: approx. 1300
Density at 20°C: 1.073 to 1.079

Flash point: >110°C
HS-Nr: 34021300
Safety: S24/25

L-Tyrosine SLR
extra pure

packaging	product code
100 g Plastic jar	T/4210/48

C9H9NO3
CAS: 60-18-4
MW: 181.19
Melting point: 290 °C

Flash point: 176°C
HS-Nr: 29225000
Safety: S24/25

Assay: >98.5%

Guaranteed analysis

Loss on drying	<0.5%	Water	<0.5%
Residue after ignition	<0.1%	Iron (Fe)	<50 ppm
Specific rotation (α 20/D)	+11.2° to -9.8°	Lead (Pb)	<10 ppm

n-Undecane
pure

packaging	product code
100 mL Glass bottle	U/0005/05

C11H24
CAS: 1120-21-4
MW: 156.31

Flash point: 60°C
ADR/RID: 3/III
UN: 2330
Density at 20°C: 0.74
Boiling point: 196°C
Boiling pressure: 760 mmHg
Melting point: -26°C

HS-Nr: 29011000
EINECS: 214-300-6
Safety: S24/25

Assay (GC): >99%

Universal indicator, pH range 4-10
for pH measurement

packaging	product code
100 mL Coated Glass Bottle	U/0020/PB05
500 mL Coated Glass Bottle	U/0020/PB08
2.5 L Coated Glass Bottle	U/0020/PB17

ADR/RID: 3/II
UN: 1170
HS-Nr: 38220000

Risk: R11, R20/21/22, R40/20/21/22
Safety: S7, S16, S36/37, S45

Uracil SLR
extra pure

packaging	product code
25 g Plastic Jar	U/0030/46

C4H4N2O2
CAS: 66-22-8
MW: 112.09
Melting point: 335°C

HS-Nr: 29335990
EINECS: 200-621-9
Safety: S24/25

Guaranteed analysis

IR Analysis Conform

Uranium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLU22Y
500 mL Plastic bottle	SPPLU22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Uranium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLU23Y
500 mL Plastic bottle	SPPLU23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Uranium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLU22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Urea for analysis

Certified AR



packaging	product code
500 g Plastic jar	U/0500/53
3 kg Plastic jar	U/0500/63
5 kg Plastic jar	U/0500/65
25 kg Fibre Keg	U/0500/70

CH₄N₂O
CAS: 57-13-6
MW: 60.06
Melting point: 131 to 135°C

Assay: >99.5%

Guaranteed analysis

Acidity / Alkalinity	<0.0005 meq/g	Sodium (Na)	<20 ppm
Calcium (Ca)	<20 ppm	Total chloride (Cl)	<0.0005 %
Copper (Cu)	<1 ppm	Total phosphorus (P)	<10 ppm
Iron (Fe)	<2 ppm	Total silicon (Si)	<5 ppm
Lead (Pb)	<1 ppm	Total sulphur (S)	<10 ppm
Magnesium (Mg)	<10 ppm	Zinc (Zn)	<5 ppm
Potassium (K)	<10 ppm	Biuret	<0.1 %

Typical analysis

Aluminium (Al)	<2 ppm	Molybdenum (Mo)	<2 ppm
Barium (Ba)	<2 ppm	Nickel (Ni)	<2 ppm
Cadmium (Cd)	<2 ppm	Silver (Ag)	<2 ppm
Chromium (Cr)	<2 ppm	Strontium (Sr)	<2 ppm
Cobalt (Co)	<2 ppm	Titanium (Ti)	<2 ppm
Lithium (Li)	<2 ppm	Vanadium (V)	<2 ppm
Manganese (Mn)	<2 ppm		

Lot analysis on the label.

Urea extra pure

SLR



packaging	product code
500 g Plastic jar	U/0450/53
1 kg Plastic jar	U/0450/60
3 kg Plastic jar	U/0450/63

CH₄N₂O
CAS: 57-13-6
MW: 60.06
Melting point: 131 to 135°C

HS-Nr: 31021010
EINECS: 200-315-5
Safety: S24/25

Assay: >99%

Guaranteed analysis

Calcium (Ca)	<100 ppm	Sodium (Na)	<100 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.002%
Iron (Fe)	<10 ppm	Total phosphorus (P)	<50 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<20 ppm
Magnesium (Mg)	<50 ppm	Total sulphur (S)	<50 ppm
Potassium (K)	<50 ppm	Zinc (Zn)	<20 ppm

Urease-active meal pure, from Jack beans

packaging	product code
25 g Plastic jar	U/0655/46

HS-Nr: 35079090

iso-Valeric acid extra pure

SLR



packaging	product code
100 mL Coated Glass Bottle	V/0011/PB05

C₅H₁₀O₂
CAS: 503-74-2
MW: 102.13
Density at 20°C: <0.931
Boiling point: 176°C
Boiling pressure: 760 mmHg
Melting point: -35°C
Flash point: 70°C

ADR/RID: 8(6.1)/II
UN: 2922
HS-Nr: 29156090
EINECS: 207-975-3
Risk: R22, R24, R34
Safety: S26, S28A,
S36/37/39, S38, S45

Assay: >98%



Vanadium standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8150/05
500 mL Plastic bottle	J/8150/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 28419030

Manufactured to a tolerance of $\pm 0.5\%$.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Vanadium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLV22Y
500 mL Plastic bottle	SPPLV22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Vanadium standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLV12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Vanadium standard metal solution 10 000 ppm for ICP solution in HNO₃ 15%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLV43Y
500 mL Plastic bottle	SPPLV43X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Vanadium standard metal solution 10 000 ppm for ICP solution in HCL 15%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLV33X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Vanadium standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLV22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Vanadium pentoxide pure

packaging	product code
100 g Plastic jar	V/0100/48
500 g Plastic jar	V/0100/53
25 kg Fibre Keg	V/0100/70

V₂O₅
CAS: 1314-62-1
MW: 181.88
Density at 20°C: 3.35
Boiling point: 1750°C
Boiling pressure: 760 mmHg
Melting point: 690°C
ADR/RID: 6.1/III
UN: 2862
HS-Nr: 28253000
EINECS: 215-239-8
Risk: R20/22, R37, R40, R48/23, R51/53, R63
Safety: S36/37, S38, S45, S61



Vanadyl sulfate hydrate extra pure

SLR



packaging	product code
100 g Plastic jar	V/0105/48

VOSO₄·H₂O
CAS: 12439-96-2
ADR/RID: 6.1/II
UN: 2931
HS-Nr: 28332990
Risk: R22, R36/37/38
Safety: S26, S37/39



Vinyl alcohol pure, polymerized

packaging	product code
500 g Plastic jar	V/0200/53

CAS: 9002-89-5
MW: approx. 25 000
Density at 20°C: 1.26
Melting point: 200 °C
Flash point: >70°C
HS-Nr: 39052000

Guaranteed analysis

Degree of hydrolysis >84% Viscosity 4.5 to 6.5 cP

Water Blank for ICP-MS, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLBLKH20

Density at 20°C: 1

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Water blank in HCL 2% for ICP-MS, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLBLKHCL

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Water blank in HNO₃ 2% for ICP-MS, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLBLKHNO3

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Water blank in HNO₃ 5% for ICP, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLBLKHNO3

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Water blank in HCl 5% for ICP, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLBLKHCL

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Water for HPLC-MS Certified



packaging	product code
1 L Glass bottle	W/0112/15
2.5 L Glass bottle	W/0112/17

H₂O
CAS: 7732-18-5
MW: 18.02
Density at 20°C: 1
Boiling point: 100°C
Boiling pressure: 760 mmHg
HS-Nr: 28530010
EINECS: 231-791-2

Guaranteed analysis

LC-MS analysis	Conform	Lead (Pb)	<0.01 ppm
Residue after evaporation	<1 ppm	Magnesium (Mg)	<0.01 ppm
Aluminium (Al)	<0.05 ppm	Manganese (Mn)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Potassium (K)	<0.1 ppm
Calcium (Ca)	<0.05 ppm	Silver (Ag)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Sodium (Na)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Copper (Cu)	<0.01 ppm	Zinc (Zn)	<0.01 ppm
Iron (Fe)	<0.01 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)	
200 nm	<0.005 A.U.
230 nm	<0.005 A.U.
Gradient (max eluted peak)	<0.2 mA.U.

Gradient analysis

Absorbance of the largest eluted peak < 0.02 mA.U.
Wavelength 254 nm
This product has been tested on an LC-MS instrument to ensure suitability.
Filtered to 0.2 μ m.
All water by Fisher Chemical is deionised not distilled.

Standard Certified for AAS, ICP & ICP-MS

A full range of Mono
& Multi-elemental standard
solution to discover on page 256



Water **NEW SPEC.** HPLC for gradient analysis

Certified Advanced HPLC



packaging	product code
1 L Coated Glass Bottle	W/0110/PB15
2.5 L Coated Glass Bottle	W/0110/PB17

H₂O
CAS: 7732-18-5
MW: 18.02
Density at 20°C: 1
Boiling point: 100°C
Boiling pressure: 760 mmHg
HS-Nr: 38220000
EINECS: 231-791-2

Guaranteed analysis

Conductivity	<5 μ S	Residue after ignition	<0.0003%
Residue after evaporation	<5 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
Gradient (max eluted peak) < 0.1 mA.U.

Absorbance of the largest eluted peak < 0.1 mA.U.

Conditions :

Column: C18 Reverse Phase.
Flow rate: 3 mL / min
Wavelength 220 nm
Solvent A: Water
Solvent B: Acetonitrile
10 min solvent A to 100% linear gradient until then 95% solvent for B 15 min.
All water by Fisher Chemical is deionised not distilled.

Water HPLC for gradient analysis

Certified



packaging	product code
1 L Glass bottle	W/0106/15
2.5 L Glass bottle	W/0106/17
2.5 L Coated Glass Bottle	W/0106/PB17

H₂O
CAS: 7732-18-5
MW: 18.02
Density at 20°C: 1
Boiling point: 100°C
Boiling pressure: 760 mmHg
HS-Nr: 28530010
EINECS: 231-791-2

Guaranteed analysis

Conductivity	<5 μ S	Residue after ignition	<0.0003%
Residue after evaporation	<5 ppm		

Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)
Gradient (max eluted peak) < 0.002 A.U.

Recommended for DNA synthesis and protein sequencing.

Gradient analysis

Conditions :
Column: C18 Reverse Phase.
Flow rate: 2 mL / min
Wavelength 254 nm
Absorbance range: 0-0.04 AU.
Solvent A: Water
Solvent B: Acetonitrile
20 min solvent was followed by a linear gradient 100% A solvent 100%
All water by Fisher Chemical is deionised not distilled.
Lot analysis on the label.
Filtered to 0.2 μ m.

NIST Certified Standard from SPEX

A full range of Mono
& Multi-elemental standard
and Calibration solution
for ICP & ICP-MS
Discover them on page 258



Water

HPLC for fluorescence detection

Certified



packaging	product code
2.5 L Glass bottle	W/0107/17

H ₂ O	Boiling point: 100°C
CAS: 7732-18-5	Boiling pressure: 760 mmHg
MW: 18.02	HS-Nr: 28530010
Density at 20°C: 1	EINECS: 231-791-2

Guaranteed analysis

Residue after evaporation	<5 ppm	Residue after ignition	<0.0003%
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Absorbance specification

Max. Absorbance (1 cm cell v HPLC water)

Fluorescence Conform

Excitation in the range 250-750nm produces no fluorescence emission greater than the solvents natural Raman signal at 350nm excitation. This is equivalent to the emission maximum of approximately 1ppb quinine sulfate.

All water by Fisher Chemical is deionised not distilled.

Lot analysis on the label (excluding fluorescence scan).

Filtered to 0.2 µm.

Water

HPLC for electrochemical detection

Certified



packaging	product code
2.5 L Glass bottle	W/0108/17

H ₂ O	Boiling point: 100°C
CAS: 7732-18-5	Boiling pressure: 760 mmHg
MW: 18.02	HS-Nr: 28530010
Density at 20°C: 1	EINECS: 231-791-2

Guaranteed analysis

Electrochemical test	Conform	Residue after ignition	<0.0003%
Residue after evaporation	<5 ppm		

Tested by HPLC-EC to ensure low electrochemical response.

Detector - ESA Coulochem II

Mode-oxidative

Graphite Electrode.

All water by Fisher Chemical is deionised not distilled.

Lot analysis on the label.

Filtered to 0.2 µm.

Water

NEW SPEC.
for ultra trace analysis

OPTIMA



packaging	product code
500 mL Teflon bottle	W/0115/08
1 L Teflon bottle	W/0115/15

H ₂ O	Boiling point: 100°C
CAS: 7732-18-5	Boiling pressure: 760 mmHg
MW: 18.02	HS-Nr: 28530010
Density at 20°C: 1	EINECS: 231-791-2

Guaranteed analysis

Colour	<10 APHA	Gallium (Ga)	<10 ppt
Sulfate (SO ₄)	<1 ppb	Germanium (Ge)	<10 ppt
Total chloride (Cl)	<1 ppb	Gold (Au)	<10 ppt
Total phosphorus (P)	<1 ppb	Hafnium (Hf)	<1 ppt
Aluminium (Al)	<20 ppt	Holmium (Ho)	<1 ppt
Antimony (Sb)	<10 ppt	Indium (In)	<1 ppt
Arsenic (As)	<10 ppt	Iron (Fe)	<20 ppt
Barium (Ba)	<10 ppt	Lanthanum (La)	<1 ppt
Beryllium (Be)	<10 ppt	Lead (Pb)	<10 ppt
Bismuth (Bi)	<10 ppt	Lithium (Li)	<10 ppt
Boron (B)	<50 ppt	Lutetium (Lu)	<1 ppt
Cadmium (Cd)	<10 ppt	Magnesium (Mg)	<10 ppt
Calcium (Ca)	<20 ppt	Manganese (Mn)	<10 ppt
Cerium (Ce)	<10 ppt	Mercury (Hg)	<20 ppt
Cesium (Cs)	<10 ppt	Molybdenum (Mo)	<10 ppt
Chromium (Cr)	<10 ppt	Neodymium (Nd)	<1 ppt
Cobalt (Co)	<10 ppt	Nickel (Ni)	<10 ppt
Copper (Cu)	<10 ppt	Niobium (Nb)	<10 ppt
Dysprosium (Dy)	<1 ppt	Palladium (Pd)	<10 ppt
Erbium (Er)	<1 ppt	Platinum (Pt)	<10 ppt
Europium (Eu)	<1 ppt	Potassium (K)	<10 ppt
Gadolinium (Gd)	<1 ppt		

Praseodymium (Pr)	<10 ppt	Terbium (Tb)	<10 ppt
Rhenium (Re)	<10 ppt	Thallium (Tl)	<10 ppt
Rhodium (Rh)	<10 ppt	Thorium (Th)	<1 ppt
Rubidium (Rb)	<10 ppt	Thulium (Tm)	<10 ppt
Ruthenium (Ru)	<10 ppt	Tin (Sn)	<10 ppt
Samarium (Sm)	<10 ppt	Titanium (Ti)	<10 ppt
Scandium (Sc)	<10 ppt	Tungsten (W)	<10 ppt
Selenium (Se)	<50 ppt	Uranium (U)	<1 ppt
Silver (Ag)	<10 ppt	Vanadium (V)	<10 ppt
Sodium (Na)	<10 ppt	Ytterbium (Yb)	<10 ppt
Strontium (Sr)	<10 ppt	Yttrium (Y)	<1 ppt
Tantalum (Ta)	<10 ppt	Zinc (Zn)	<10 ppt
Tellurium (Te)	<1 ppt		

Water

for analysis

Certified AR



packaging	product code
5 L Plastic bottle	W/0100/21
10 L Cubitainer	W/0100/24
25 L Metal drum	W/0100/25
200 L Metal drum	W/0100/27

H ₂ O	Boiling point: 100°C
CAS: 7732-18-5	Boiling pressure: 760 mmHg
MW: 18.02	HS-Nr: 28530010
Density at 20°C: 1	EINECS: 231-791-2

Guaranteed analysis

At pH 20°C	4.5 to 7.5	Potassium (K)	<0.05 ppm
Conductivity	<5 µS	Sodium (Na)	<0.2 ppm
Substances		Total chloride (Cl)	<0.00001 %
reducing KMnO ₄	<0.00001%	Total nitrogen (N)	<0.1 ppm
Calcium (Ca)	<0.05 ppm	Total phosphorus (P)	<0.01 ppm
Copper (Cu)	<0.01 ppm	Total silicon (Si)	<0.2 ppm
Iron (Fe)	<0.01 ppm	Total sulphur (S)	<0.5 ppm
Lead (Pb)	<0.005 ppm	Zinc (Zn)	<0.01 ppm
Magnesium (Mg)	<0.05 ppm		

Typical analysis

Aluminium (Al)	<0.01 ppm	Molybdenum (Mo)	<0.01 ppm
Barium (Ba)	<0.01 ppm	Nickel (Ni)	<0.01 ppm
Cadmium (Cd)	<0.01 ppm	Silver (Ag)	<0.01 ppm
Chromium (Cr)	<0.01 ppm	Strontium (Sr)	<0.01 ppm
Cobalt (Co)	<0.01 ppm	Tin (Sn)	<0.01 ppm
Lithium (Li)	<0.01 ppm	Titanium (Ti)	<0.01 ppm
Manganese (Mn)	<0.01 ppm	Vanadium (V)	<0.01 ppm

All water by Fisher Chemical is deionised not distilled.

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Wax Beeswax White

pure

packaging	product code
500 g Plastic Jar	W/0150/53

CAS: 8012-89-3	EINECS: 232-383-7
Melting point: 61 to 65°C	Safety: S24/25
HS-Nr: 38220000	

Wax Beeswax

pure

packaging	product code
250 g Plastic Jar	W/0200/50

CAS: 8012-89-3	EINECS: 232-383-7
Melting point: 61.5 to 64.5°C	Safety: S24/25
HS-Nr: 15219099	

Guaranteed analysis

IR Analysis	Conform
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Wax Carnauba yellow

pure

packaging	product code
100 g Plastic jar	W/0255/48

CAS: 8015-86-9	EINECS: 232-399-4
Melting point: 81 to 86°C	Safety: S24/25
HS-Nr: 38220000	

Wax lanette emulsifying pure

packaging	product code
500 g Plastic jar	W/0320/53

HS-Nr: 38220000



Wood's metal pure, m.p. ca. 70°C

packaging	product code
100 g Bidon	W/0350/48
500 g box	W/0350/53

CAS: 8049-22-7

Melting point: 70°C

HS-Nr: 81060010

9H-Xanthen-9-ol *See Xanthidrol, page 304*

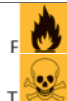


Xanthidrol pure, solution 10% w/v in methanol

packaging	product code
100 mL Glass bottle	J/9030/05

C₁₃H₁₀O₂
CAS: 90-46-0
MW: 198.22
Melting point: 124 to 127°C
ADR/RID: 3(6.1)/II
UN: 1230

HS-Nr: 38220000
EINECS: 201-996-1
Risk: R11, R23/24/25,
R39/23/24/25
Safety: S7, S16, S36/37, S45



o-Xylene pure

packaging	product code
500 mL Glass bottle	X/0300/08
2.5 L Glass bottle	X/0300/17
200 L Metal drum	X/0300/27

C₈H₁₀
CAS: 95-47-6
MW: 106.17
Density at 20°C: 0.878 to 0.88
Boiling point: 143 to 145°C
Boiling pressure: 760 mmHg
Melting point: -25°C

Flash point: 31°C
ADR/RID: 3/II
UN: 1307
HS-Nr: 29024100
EINECS: 202-422-2
Risk: R10, R20/21, R38
Safety: S25



Assay (GC): >98%

see page 279 for suitable Tap & accessories.

m-Xylene pure

packaging	product code
500 mL Glass bottle	X/0350/08

C₈H₁₀
CAS: 108-38-3
MW: 106.17
Density at 20°C: 0.86
Boiling point: 139 to 139°C
Boiling pressure: 760 mmHg
Melting point: -48°C

Flash point: 25°C
ADR/RID: 3/III
UN: 1307
HS-Nr: 29024200
EINECS: 203-576-3
Risk: R10, R20/21, R36/38
Safety: S25



Assay: >98%

p-Xylene pure

packaging	product code
500 mL Glass bottle	X/0400/08

C₈H₁₀
CAS: 106-42-3
MW: 106.17
Density at 20°C: 0.858 to 0.862
Boiling point: 138°C
Boiling pressure: 760 mmHg
Melting point: 13°C

Flash point: 25°C
ADR/RID: 3/III
UN: 1307
HS-Nr: 29024200
EINECS: 203-396-5
Risk: R10, R20/21, R38
Safety: S25



Assay (GC): >98%

Xylene for electronic use (MOS)

packaging	product code
2.5 L Glass bottle	X/0255/17

C₈H₁₀
CAS: 1330-20-7
MW: 106.17
Density at 20°C: 0.87
Boiling point: 136 to 140°C
Boiling pressure: 760 mmHg
Melting point: -34°C

Flash point: 21°C
ADR/RID: 3/III
UN: 1307
HS-Nr: 29024400
EINECS: 215-535-7
Risk: R10, R20/21, R38
Safety: S25



Assay (GC): >98%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Molybdenum (Mo)	<0.02 ppm
Colour	<10 APHA	Nickel (Ni)	<0.02 ppm
Water	<0.05%	Potassium (K)	<0.5 ppm
Aluminium (Al)	<0.02 ppm	Sodium (Na)	<0.5 ppm
Barium (Ba)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Calcium (Ca)	<0.5 ppm	Titanium (Ti)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Total phosphorus (P)	<0.1 ppm
Cobalt (Co)	<0.02 ppm	Total silicon (Si)	<0.05 ppm
Copper (Cu)	<0.05 ppm	Total sulphur (S)	<2 ppm
Iron (Fe)	<0.1 ppm	Vanadium (V)	<0.02 ppm
Lead (Pb)	<0.05 ppm	Zinc (Zn)	<0.1 ppm
Lithium (Li)	<0.02 ppm	Benzene	<0.05%
Magnesium (Mg)	<0.2 ppm	No benzene Propyle	<1%
Manganese (Mn)	<0.02 ppm	Toluene	<1%

Filtered to 0.2 µm.

Xylene for analysis

Certified AR



packaging	product code
1 L Glass bottle	X/0250/15
2.5 L Glass bottle	X/0250/17
2.5 L Coated Glass Bottle	X/0250/PB17
5 L Metal can	X/0250/21
25 L Metal drum	X/0250/25
200 L Metal drum	X/0250/27

C₈H₁₀
CAS: 1330-20-7
MW: 106.17
Density at 20°C: 0.87
Boiling point: 136 to 140°C
Boiling pressure: 760 mmHg
Melting point: -34°C

Flash point: 21°C
ADR/RID: 3/III
UN: 1307
HS-Nr: 29024400
EINECS: 215-535-7
Risk: R10, R20/21, R38
Safety: S25



Assay (GC): >98%

Guaranteed analysis

Acidity / Alkalinity	<0.0001 meq/g	Nickel (Ni)	<0.02 ppm
Colour	<10 APHA	Potassium (K)	<0.5 ppm
Residue after evaporation	<20 ppm	Sodium (Na)	<0.5 ppm
Substances		Total phosphorus (P)	<0.1 ppm
reducing KMnO ₄	<0.0005%	Total silicon (Si)	<0.05 ppm
Water	<0.05%	Total sulphur (S)	<2 ppm
Calcium (Ca)	<0.5 ppm	Zinc (Zn)	<0.1 ppm
Copper (Cu)	<0.05 ppm	Benzene	<0.05 %
Iron (Fe)	<0.1 ppm	No benzene Propyle	<1 %
Lead (Pb)	<0.05 ppm	Toluene	<1 %
Magnesium (Mg)	<0.2 ppm		

Typical analysis

Aluminium (Al)	<0.02 ppm	Molybdenum (Mo)	<0.02 ppm
Barium (Ba)	<0.02 ppm	Selenium (Se)	<0.02 ppm
Cadmium (Cd)	<0.02 ppm	Strontium (Sr)	<0.02 ppm
Chromium (Cr)	<0.02 ppm	Tin (Sn)	<0.02 ppm
Cobalt (Co)	<0.02 ppm	Titanium (Ti)	<0.02 ppm
Lithium (Li)	<0.02 ppm	Vanadium (V)	<0.02 ppm
Manganese (Mn)	<0.02 ppm		

Lot analysis on the label.

see page 279 for suitable Tap & accessories.

Xylene extra pure

SLR



packaging	product code
2.5 L Glass bottle	X/0200/17
2.5 L Coated Glass Bottle	X/0200/PB17
5 L Metal can	X/0200/21
25 L Metal drum	X/0200/25
25 L Metal drum	X/0200/DH25
200 L Metal drum	X/0200/27

C ₈ H ₁₀	Flash point: 21°C
CAS: 1330-20-7	ADR/RID: 3/III
MW: 106.17	UN: 1307
Density at 20°C: 0.87	HS-Nr: 29024400
Boiling point: 136 to 140°C	EINECS: 215-535-7
Boiling pressure: 760 mmHg	Risk: R10, R20/21, R38
Melting point: -34°C	Safety: S25



Assay (GC): >97%

Guaranteed analysis

Acidity / Alkalinity	<0.003 meq/g	Lead (Pb)	<2 ppm
Colour	<10 APHA	Magnesium (Mg)	<2 ppm
Residue after evaporation	<100 ppm	Potassium (K)	<2 ppm
Substances		Sodium (Na)	<5 ppm
reducing KMnO ₄	<0.001%	Total phosphorus (P)	<2 ppm
Water	<0.05%	Total silicon (Si)	<2 ppm
Calcium (Ca)	<5 ppm	Total sulphur (S)	<10 ppm
Copper (Cu)	<2 ppm	Zinc (Zn)	<2 ppm
Iron (Fe)	<5 ppm		

see page 279 for suitable Tap & accessories.

Xylene Technical

packaging	product code
2.5 L Glass bottle	X/0100/17
2.5 L Coated Glass Bottle	X/0100/PB17
25 L Metal drum	X/0100/25
200 L Metal drum	X/0100/27

C ₈ H ₁₀	Flash point: 21°C
CAS: 1330-20-7	ADR/RID: 3/III
MW: 106.17	UN: 1307
Density at 20°C: 0.87	HS-Nr: 29024400
Boiling point: 136 to 140°C	EINECS: 215-535-7
Boiling pressure: 760 mmHg	Risk: R10, R20/21, R38
Melting point: -34°C	Safety: S25



Assay (GC): >97%

see page 279 for suitable Tap & accessories.

Xylenol Orange

See o-Cresolsulfonphthaleindi-(methyl-iminodiacetic acid) sodium salt, page 76

Yeast extract powder pure

packaging	product code
100 g Plastic jar	Y/0200/48

HS-Nr: 38220000

Ytterbium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLYB22Y
500 mL Plastic bottle	SPPLYB22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Ytterbium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLY22Y
250 mL Plastic bottle	SPPLY22T
500 mL Plastic bottle	SPPLY22X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Ytterbium standard metal solution 10 ppm for ICP-MS solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPCLY21AY

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Yttrium standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLY23Y
500 mL Plastic bottle	SPPLY23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of ± 0.5%.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Zinc standard metal solution 1000 ppm for AAS, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8070/05
500 mL Plastic bottle	J/8070/08

ADR/RID: 8/II

UN: 2031

HS-Nr: 38220000

Risk: R34

Safety: S23, S26, S36, S45

Manufactured to a tolerance of ± 0.5%.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.



Zinc standard metal solution 1000 ppm for ICP, solution HNO₃ 1M

packaging	product code
500 mL Plastic bottle	J/8341/08

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc standard metal solution 10 000 ppm for ICP, solution HNO₃ 1M

packaging	product code
100 mL Plastic bottle	J/8340/05

ADR/RID: 8/II
UN: 2031
HS-Nr: 38220000

Risk: R34
Safety: S23, S26, S36, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLZN22Y
250 mL Plastic bottle	SPPLZN22T

Density at 20°C: 1.02
Risk: R36/38
Safety: S26



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc standard metal solution 1000 ppm for ICP solution in HCL 2%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLZN12X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc standard metal solution 10 000 ppm for ICP solution in HNO₃ 5%, NIST certified

packaging	product code
100 mL Plastic bottle	SPPLZN23Y
500 mL Plastic bottle	SPPLZN23X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc standard metal solution 10 000 ppm for ICP solution in HCL 5%, NIST certified

packaging	product code
500 mL Plastic bottle	SPPLZN13X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc standard metal solution 1000 ppm for ICP-MS solution in HNO₃ 2%, NIST certified

packaging	product code
100 mL Plastic bottle	SPCLZN22Y

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of $\pm 0.5\%$.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zinc granulated (metal) for analysis

Certified AR

packaging	product code
500 g Plastic Jar	Z/0300/53
1 kg Plastic Jar	Z/0300/60
25 kg Plastic keg with screw-on lid	Z/0300/70

Zn
CAS: 7440-66-6
MW: 65.36
Density at 20°C: 7.14
Boiling point: 907°C
Boiling pressure: 760 mmHg
Melting point: 419°C
ADR/RID: 4.3/II
UN: 3077
HS-Nr: 79011230
Risk: R50/S3
Safety: S60, S61



Assay: >99.9%

Guaranteed analysis

Arsenic (As)	<0.05 ppm	Lead (Pb)	<40 ppm
Cadmium (Cd)	<20 ppm	Sulfide (S)	<0.00001 %
Copper (Cu)	<30 ppm	Tin (Sn)	<10 ppm
Iron (Fe)	<20 ppm		

Lot analysis on the label.

Zinc powder (metal) for analysis

Certified AR

packaging	product code
500 g Plastic jar	Z/0500/53
1 kg Plastic jar	Z/0500/60

Zn
CAS: 7440-66-6
MW: 65.36
Density at 20°C: 7.1
Boiling point: 907°C
Boiling pressure: 760 mmHg
Melting point: 419°C
ADR/RID: 4.3/II
UN: 1436
HS-Nr: 79039000
INECS: 231-175-3
Risk: R15, R17, R50/S3
Safety: S43A, S46, S60, S61



Assay: >90%

Guaranteed analysis

Substances		Iron (Fe)	<50 ppm
reducing KMnO ₄	<0.002%	Total nitrogen (N)	<100 ppm

Lot analysis on the label.

Zinc metal granulated

extra pure, activated with copper

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	Z/0400/53
Zn		Melting point: 419°C
CAS: 7440-66-6		ADR/RID: 4.3/II
MW: 65.36		UN: 3077
Density at 20°C: 7.14		HS-Nr: 38220000
Boiling point: 907°C		Risk: R50/53
Boiling pressure: 760 mmHg		Safety: S60, S61



Guaranteed analysis

Arsenic (As) <1 ppm Acids insoluble <0.05%

For the determination of Arsenic.

Zinc metal granulated

extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic jar	Z/0250/53
	2 kg Plastic jar	Z/0250/61
Zn		Melting point: 419°C
CAS: 7440-66-6		ADR/RID: 4.3/II
MW: 65.36		UN: 3077
Density at 20°C: 7.14		HS-Nr: 79011230
Boiling point: 907°C		Risk: R50/53
Boiling pressure: 760 mmHg		Safety: S60, S61



Zinc metal powder

pure

packaging	product code
500 g Plastic Jar	Z/0450/53
1 kg Plastic Jar	Z/0450/60

Zn	ADR/RID: 4.3/II
CAS: 7440-66-6	UN: 1436
MW: 65.36	HS-Nr: 79039000
Density at 20°C: 7.1	EINECS: 231-175-3
Boiling point: 907°C	Risk: R15, R17, R50/53
Boiling pressure: 760 mmHg	Safety: S43A, S46, S60, S61
Melting point: 419°C	



Assay: >90%

Zinc metal stick

pure, low in arsenic

packaging	product code
500 g box	Z/0550/53

Zn	Melting point: 419°C
CAS: 7440-66-6	ADR/RID: 4.3/II
MW: 65.36	UN: 3077
Density at 20°C: 7.14	HS-Nr: 79040000
Boiling point: 907°C	Risk: R50/53
Boiling pressure: 760 mmHg	Safety: S60, S61



Zinc metal foil, about 0.3 mm

pure

packaging	product code
500 g Cardboard tube	Z/0160/53

Zn	Melting point: 419°C
CAS: 7440-66-6	ADR/RID: 4.3/II
MW: 65.36	UN: 3077
Density at 20°C: 7.14	HS-Nr: 38220000
Boiling point: 907°C	Risk: R50/53
Boiling pressure: 760 mmHg	Safety: S60, S61



Zinc acetate dihydrate

for analysis

Certified AR

CertiFied	packaging	product code
	250 g Plastic Jar	Z/0700/50
	500 g Plastic Jar	Z/0700/53
	1 kg Plastic Jar	Z/0700/60

C ₄ H ₆ O ₄ Zn·2H ₂ O	Melting point: 100°C
CAS: 5970-45-6	HS-Nr: 29152900
MW: 219.49	EINECS: 209-170-2
Density at 20°C: 1.84	Risk: R22

Xn

Assay: >99.5%

Guaranteed analysis

Calcium (Ca) <10 ppm	Sodium (Na) <10 ppm
Copper (Cu) <5 ppm	Total chloride (Cl) <0.001 %
Iron (Fe) <5 ppm	Total nitrogen (N) <20 ppm
Lead (Pb) <5 ppm	Total phosphorus (P) <20 ppm
Magnesium (Mg) <10 ppm	Total silicon (Si) <100 ppm
Potassium (K) <10 ppm	Total sulphur (S) <50 ppm

Typical analysis

Aluminium (Al) <5 ppm	Molybdenum (Mo) <5 ppm
Barium (Ba) <5 ppm	Nickel (Ni) <5 ppm
Cadmium (Cd) <5 ppm	Silver (Ag) <5 ppm
Chromium (Cr) <5 ppm	Strontium (Sr) <5 ppm
Cobalt (Co) <5 ppm	Titanium (Ti) <5 ppm
Lithium (Li) <5 ppm	Vanadium (V) <5 ppm
Manganese (Mn) <5 ppm	

Lot analysis on the label.

Zinc acetate dihydrate

extra pure

SLR

SpeciFied	packaging	product code
	500 g Plastic Jar	Z/0650/53

C ₄ H ₆ O ₄ Zn·2H ₂ O	Melting point: 100°C
CAS: 5970-45-6	HS-Nr: 29152900
MW: 219.49	EINECS: 209-170-2
Density at 20°C: 1.84	Risk: R22

Xn

Assay: >99%

Guaranteed analysis

Calcium (Ca) <100 ppm	Sodium (Na) <100 ppm
Copper (Cu) <20 ppm	Total chloride (Cl) <0.005%
Iron (Fe) <20 ppm	Total phosphorus (P) <100 ppm
Lead (Pb) <20 ppm	Total silicon (Si) <100 ppm
Magnesium (Mg) <100 ppm	Total sulphur (S) <200 ppm
Potassium (K) <100 ppm	

Zinc bromide

extra pure

SLR

SpeciFied	packaging	product code
	100 g Plastic jar	Z/0750/48

ZnBr ₂	ADR/RID: 8/II
CAS: 7699-45-8	UN: 3260
MW: 225.19	HS-Nr: 28275900
Density at 20°C: 4.22	EINECS: 231-718-4
Boiling point: 697°C	Risk: R34, R50
Boiling pressure: 760 mmHg	Safety: S26, S29, S36/37/39, S45, S61
Melting point: 394°C	



Assay: >98%

Guaranteed analysis

Iron (Fe) <10 ppm Sulfate (SO₄) <0.02%

Zinc carbonate

pure, basic

packaging	product code
500 g Plastic jar	Z/0800/53

Zn(CO ₃)	Density at 20°C: 4.39
CAS: 5970-47-8	HS-Nr: 28369919
MW: 549.01	Safety: S24/25

Zinc chloride
for analysis

Certified AR



packaging	product code
500 g Plastic jar	Z/0870/53
1 kg Plastic jar	Z/0870/60

ZnCl ₂	UN: 2331	
CAS: 7646-85-7	HS-Nr: 28273985	
MW: 136.29	EINECS: 231-592-0	
Boiling point: 732°C	Risk: R22, R34, R50/53	
Boiling pressure: 760 mmHg	Safety: S26, S36/37/39, S45, S60, S61	
Melting point: 293°C	ADR/RID: 8/III	

Assay: >98%

Guaranteed analysis

Basic Salts	<1%	Potassium (K)	<10 ppm
Calcium (Ca)	<10 ppm	Sodium (Na)	<10 ppm
Copper (Cu)	<5 ppm	Total phosphorus (P)	<20 ppm
Iron (Fe)	<10 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<5 ppm	Total sulphur (S)	<20 ppm
Magnesium (Mg)	<10 ppm		

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm		

Lot analysis on the label.

Zinc chloride
extra pure

SLR



packaging	product code
500 g Plastic Jar	Z/0850/53
1 kg Plastic Jar	Z/0850/60
10 kg Plastic keg with screw-on lid	Z/0850/68

ZnCl ₂	UN: 2331	
CAS: 7646-85-7	HS-Nr: 28273985	
MW: 136.29	EINECS: 231-592-0	
Boiling point: 732°C	Risk: R22, R34, R50/53	
Boiling pressure: 760 mmHg	Safety: S26, S36/37/39, S45, S60, S61	
Melting point: 293°C	ADR/RID: 8/III	

Assay: >97%

Guaranteed analysis

Basic Salts	<5%	Potassium (K)	<2000 ppm
Calcium (Ca)	<2000 ppm	Sodium (Na)	<5000 ppm
Copper (Cu)	<20 ppm	Total phosphorus (P)	<100 ppm
Iron (Fe)	<50 ppm	Total silicon (Si)	<100 ppm
Lead (Pb)	<20 ppm	Total sulphur (S)	<100 ppm
Magnesium (Mg)	<1000 ppm		

Zinc iodide
extra pure

SLR



packaging	product code
100 g Plastic jar	Z/1100/48

ZnI ₂	UN: 3260	
CAS: 10139-47-6	HS-Nr: 28276000	
MW: 319.18	EINECS: 233-396-0	
Density at 20°C: 4.74	Risk: R34	
Melting point: 446°C	Safety: S26, S36/37/39, S45	
ADR/RID: 8/III		

Assay: >98%

Guaranteed analysis

Iron (Fe)	<100 ppm	Sulfate (SO ₄)	<0.05%
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Zinc nitrate hexahydrate
extra pure

SLR



packaging	product code
250 g Plastic jar	Z/1150/50
500 g Plastic jar	Z/1150/53

Zn(NO ₃) ₂ ·6H ₂ O	UN: 1514	
CAS: 10196-18-6	HS-Nr: 28342980	
MW: 297.47	EINECS: 231-943-8	
Density at 20°C: 2.06	Risk: R8, R22, R38	
Melting point: 36°C	Safety: S17, S24/25	
ADR/RID: 5.1/II		

Assay: >97%

Guaranteed analysis

Calcium (Ca)	<50 ppm	Sodium (Na)	<1000 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.005%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<100 ppm
Lead (Pb)	<50 ppm	Total silicon (Si)	<100 ppm
Magnesium (Mg)	<100 ppm	Total sulphur (S)	<200 ppm
Potassium (K)	<50 ppm		

Zinc nitrate hexahydrate
Technical

packaging	product code
500 g Plastic jar	Z/1145/53

N ₂ O ₆ Zn·6H ₂ O	UN: 1514	
CAS: 10196-18-6	HS-Nr: 28342980	
MW: 297.47	EINECS: 231-943-8	
Density at 20°C: 2.06	Risk: R8, R22, R38	
Melting point: 36°C	Safety: S17, S24/25	
ADR/RID: 5.1/II		

Zinc oxide
for analysis

Certified AR



packaging	product code
500 g Plastic jar	Z/1350/53
1 kg Plastic jar	Z/1350/60
25 kg Fibre Keg	Z/1350/70

ZnO	UN: 3077	
CAS: 1314-13-2	HS-Nr: 28170000	
MW: 81.38	EINECS: 215-222-5	
Density at 20°C: 5.6	Risk: R50/53	
Melting point: 1975°C	Safety: S60, S61	
ADR/RID: 9/III		

Assay: >99.5%

Guaranteed analysis

Loss on drying 600°C	<0.5%	Manganese (Mn)	<5 ppm
Reducing substance	<0.002%	Molybdenum (Mo)	<5 ppm
Aluminium (Al)	<5 ppm	Nickel (Ni)	<5 ppm
Barium (Ba)	<5 ppm	Potassium (K)	<50 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<50 ppm
Carbonate (Na ₂ CO ₃)	<0.2%	Strontium (Sr)	<5 ppm
Chromium (Cr)	<5 ppm	Titanium (Ti)	<5 ppm
Cobalt (Co)	<5 ppm	Total chloride (Cl)	<0.002%
Copper (Cu)	<5 ppm	Total phosphorus (P)	<50 ppm
Iron (Fe)	<5 ppm	Total silicon (Si)	<200 ppm
Lead (Pb)	<50 ppm	Total sulphur (S)	<100 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Magnesium (Mg)	<50 ppm		

Lot analysis on the label.

Fisher Chemical
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for a cleaner and safer world!

Zinc oxide extra pure

SLR, Eur.Ph.,BP, USP



packaging	product code
500 g Plastic jar	Z/1300/53
1 kg Plastic jar	Z/1300/60

ZnO
CAS: 1314-13-2
MW: 81.38
Density at 20°C: 5.6
Melting point: 1975°C
ADR/RID: 9/III
UN: 3077
HS-Nr: 28170000
EINECS: 215-222-5
Risk: R50/53
Safety: S60, S61



Assay: >99%

Guaranteed analysis

Loss on ignition	<1%	Potassium (K)	<200 ppm
Calcium (Ca)	<200 ppm	Sodium (Na)	<200 ppm
Copper (Cu)	<20 ppm	Total chloride (Cl)	<0.02%
Iron (Fe)	<20 ppm	Total phosphorus (P)	<200 ppm
Lead (Pb)	<200 ppm	Total silicon (Si)	<500 ppm
Magnesium (Mg)	<200 ppm	Total sulphur (S)	<500 ppm

Zinc stearate Technical

packaging	product code
500 g Plastic jar	Z/1400/53

C₃₆H₇₀O₄Zn
CAS: 557-05-1
MW: 632.34
Melting point: 118 to 128°C
Flash point: >100°C
HS-Nr: 29157030
EINECS: 209-151-9
Safety: S24/25

Zinc sulfate heptahydrate for analysis

Certified AR



packaging	product code
25 kg Plastic screw top Keg	Z/1600/70

ZnSO₄·7H₂O
CAS: 7446-20-0
MW: 287.53
Melting point: 100°C
ADR/RID: 9/III
UN: 3077
HS-Nr: 28332920
EINECS: 231-793-3
Risk: R22, R41, R50/53
Safety: S22, S26, S39, S46, S60, S61



Assay: 99.5 to 100.5%

Guaranteed analysis

pH (aqueous solution 5%)	4.5 to 6	Potassium (K)	<50 ppm
Calcium (Ca)	<50 ppm	Sodium (Na)	<50 ppm
Copper (Cu)	<5 ppm	Total chloride (Cl)	<0.001 %
Iron (Fe)	<5 ppm	Total nitrogen (N)	<20 ppm
Lead (Pb)	<5 ppm	Total silicon (Si)	<50 ppm
Magnesium (Mg)	<50 ppm		

Typical analysis

Aluminium (Al)	<5 ppm	Molybdenum (Mo)	<5 ppm
Barium (Ba)	<5 ppm	Nickel (Ni)	<5 ppm
Cadmium (Cd)	<5 ppm	Silver (Ag)	<5 ppm
Chromium (Cr)	<5 ppm	Strontium (Sr)	<5 ppm
Cobalt (Co)	<5 ppm	Titanium (Ti)	<5 ppm
Lithium (Li)	<5 ppm	Vanadium (V)	<5 ppm
Manganese (Mn)	<5 ppm		

Zinc sulfate heptahydrate extra pure

SLR



packaging	product code
500 g Plastic jar	Z/1550/53
1 kg Plastic jar	Z/1550/60
5 kg Plastic drum	Z/1550/65

ZnSO₄·7H₂O
CAS: 7446-20-0
MW: 287.54
Melting point: 100°C
ADR/RID: 9/III
UN: 3077
HS-Nr: 28332920
EINECS: 231-793-3
Risk: R22, R41, R50/53
Safety: S22, S26, S39, S46, S60, S61



Assay: >99%

Guaranteed analysis

Calcium (Ca)	<200 ppm	Potassium (K)	<200 ppm
Copper (Cu)	<20 ppm	Sodium (Na)	<200 ppm
Iron (Fe)	<20 ppm	Total chloride (Cl)	<0.005%
Lead (Pb)	<20 ppm	Total silicon (Si)	<200 ppm
Magnesium (Mg)	<200 ppm		

Zinc sulfate solution 0.05M (0.05N)

NIST Standard Concentrate, For Volumetric analysis



packaging	product code
1 ampoule	J/8490C/05
6 ampoule	J/8490C/90

HS-Nr: 28416010

Each ampoule makes 1 L of solution.
See the full range of Standard Volumetric solution page 266.

Zinc sulfide pure

packaging	product code
500 g Plastic jar	Z/1700/53

ZnS
CAS: 1314-98-3
MW: 97.44
HS-Nr: 28302000
EINECS: 215-251-3
Safety: S24/25

Zirconium standard metal solution 1000 ppm for AAS, solution HCl 1M

packaging	product code
500 mL Plastic bottle	J/8200/08

HS-Nr: 38220000

Manufactured to a tolerance of ± 0.5%.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zirconium standard metal solution 1000 ppm for ICP solution in HNO₃ 2%, NIST certified



packaging	product code
100 mL Plastic bottle	SPPLZR22Y
250 mL Plastic bottle	SPPLZR22T
500 mL Plastic bottle	SPPLZR22X

Density at 20°C: 1
Risk: R34
Safety: S36/37/39, S26, S45



Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zirconium standard metal solution 1000 ppm for ICP solution in HCL 10%, NIST certified



packaging	product code
500 mL Plastic bottle	SPPLZR32X

Density at 20°C: 1.05
Risk: R34, R37
Safety: S26, S36/37/39, S45



Manufactured to a tolerance of ± 0.5%.
All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.
See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zirconium standard metal solution 10 000 ppm
 for ICP solution in HNO₃ 5%, NIST certified


packaging	product code
100 mL Plastic bottle	SPPLZR23Y
500 mL Plastic bottle	SPPLZR23X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zirconium standard metal solution 10 000 ppm
 for ICP solution in HCL 10%, NIST certified


packaging	product code
500 mL Plastic bottle	SPPLZR33X

Density at 20°C: 1

Risk: R34

Safety: S36/37/39, S26, S45

Manufactured to a tolerance of $\pm 0.5\%$.

All standards are manufactured from acids, metals & metal salts and contain less than <10 ppm total metal impurities.

See also the full range in the Standard Elemental solution for Trace metal analysis section see page 256.

Zirconium dioxide
 extra pure

SLR



packaging	product code
250 g Plastic jar	Z/1850/50

ZrO₂

CAS: 1314-23-4

MW: 123.22

Density at 20°C: 5.6

Boiling point: 4300°C

Boiling pressure: 760 mmHg

Melting point: 2700°C

HS-Nr: 28256090

EINECS: 215-227-2

Risk: R36/37

Safety: S26, S39


Zirconyl chloride octahydrate
 extra pure

SLR



packaging	product code
500 g Plastic jar	Z/1900/53

ZrCl₂·8H₂O

CAS: 13520-92-8

MW: 322.25

Density at 20°C: 1.91

ADR/RID: 8/III

UN: 3260

HS-Nr: 28274990

EINECS: 231-717-9

Risk: R22, R34

Safety: S26, S36/37/39, S45



code	page	code	page	code	page	code	page	code	page
A/0040/48	1	A/0627/17	6	A/3290/PB15	19	A/5160/70	25	A/7638/48	32
A/0080/08	1	A/0627/21	6	A/3295/PB05	19	A/5200/53	25	A/7760/46	32
A/0080/17	1	A/0627/27SS	6	A/3320/PB17	18	A/5240/63	25	A/7770/50	32
A/0160/48	1	A/0627/DH25	6	A/3360/PB15	18	A/5280/53	25	A/7770/53	32
A/0360/25	2	A/0627/PB17	6	A/3360/PB17	18	A/5280/62	25	A/7770/60	32
A/0360/PB15	2	A/0630/PB15	6	A/3362/08	9	A/5280/70	25	A/7840/53	33
A/0360/PB17	2	A/0630/PB17	6	A/3365/07	9	A/5320/53	26	A/8200/50	33
A/0400/25	2	A/0632/PB15	5	A/3365/08	9	A/5320/60	26	A/8202/50	33
A/0400/PB08	2	A/0632/PB17	5	A/3365/15	9	A/5360/53	25	A/8240/53	33
A/0400/PB15	2	A/0635/PB17	6	A/3366/15	18	A/5360/60	25	A/8280/46	33
A/0400/PB17	2	A/0636/15	6	A/3366/21	18	A/5400/53	26	A/8300/46	33
A/0406/PB08	1	A/0636/17	6	A/3367/15	18	A/5680/48	27	A/8440/53	34
A/0406/PB15	1	A/0638/15	5	A/3367/17	18	A/5680/50	27	A/8882/48	34
A/0407/PB08	1	A/0638/17	5	A/3400/53	21	A/5680/70	27	A/8882/53	34
A/0411/PB07	2	A/0640/PB08	8	A/3400/60	21	A/5720/48	27	A/8920/48	34
A/0411/PB08	2	A/0800/PB08	8	A/3400/65	21	A/5720/50	27	A/8961/53	35
A/0411/PB15	2	A/0880/PB08	8	A/3440/50	20	A/5720/53	27	A/9080/45	35
A/0411/PB17	2	A/0880/PB17	8	A/3440/53	20	A/5760/48	27	B/0120/48	35
A/0415/07	1	A/0881/99	8	A/3440/60	20	A/5760/50	27	B/0150/46	36
A/0415/08	1	A/0920/PB05	8	A/3440/65	20	A/5760/53	27	B/0350/53	36
A/0415/15	1	A/0920/PB08	8	A/3445/53	20	A/5760/60	27	B/0400/48	36
A/0418/PB08	2	A/0960/53	8	A/3445/60	20	A/5760/70	27	B/0400/53	36
A/0418/PB15	2	A/0976/50	11	A/3445/65	20	A/5800/53	27	B/0500/53	36
A/0420/PB17	3	A/1000/53	11	A/3446/50	20	A/5880/53	28	B/0500/60	36
A/0430/PB08	3	A/1020/99	11	A/3450/50	20	A/5880/60	28	B/0500/65	36
A/0440/PB08	3	A/1040/53	92	A/3520/53	21	A/5880/65	28	B/0500/70	36
A/0440/PB17	3	A/1160/48	11	A/3560/53	21	A/5920/53	27	B/0550/53	36
A/0480/PB08	3	A/1162/48	11	A/3640/60	22	A/5920/60	27	B/0550/60	36
A/0480/PB17	3	A/1280/50	11	A/3640/65	22	A/5920/62	27	B/0550/70	36
A/0520/17	5	A/1460/45	11	A/3680/53	21	A/6000/53	28	B/0620/44	36
A/0520/25	5	A/1520/46	11	A/3680/60	21	A/6040/48	28	B/0650/53	37
A/0520/PB17	5	A/1552/15	11	A/3686/50	21	A/6040/53	28	B/0650/60	37
A/0560/15	5	A/1565/05	11	A/3720/48	22	A/6040/60	28	B/0700/53	37
A/0560/17	5	A/1566/47	11	A/3720/50	22	A/6120/60	28	B/0700/60	37
A/0560/21	5	A/1570/50	13	A/3730/48	22	A/6120/63	28	B/0800/53	37
A/0560/25	5	A/1570/53	13	A/3730/50	22	A/6160/53	28	B/0800/70	37
A/0560/27	5	A/1605/53	13	A/3760/48	22	A/6160/60	28	B/0850/50	37
A/0560/DH25	5	A/1610/53	13	A/3771/48	22	A/6200/44	29	B/0850/53	37
A/0560/PB17	5	A/1690/50	13	A/3800/61	23	A/6200/46	29	B/0850/60	37
A/0560/PC21	5	A/1810/48	13	A/3880/60	23	A/6220/46	29	B/0850/70	37
A/0560/PC24	5	A/1840/60	13	A/3880/61	23	A/6280/53	29	B/1080/53	37
A/0600/15	4	A/1880/53	13	A/3880/65	23	A/6280/65	29	B/1120/53	37
A/0600/17	4	A/1960/53	14	A/3920/53	22	A/6400/50	29	B/1300/60	38
A/0600/21	4	A/2000/53	13	A/3920/60	22	A/6440/60	29	B/1400/PB08	38
A/0600/25	4	A/2080/60	14	A/3920/61	22	A/6440/62	29	B/1460/48	38
A/0600/27	4	A/2160/45	148	A/3920/65	22	A/6440/65	29	B/1800/PB07	38
A/0600/DH25	4	A/2200/53	14	A/3920/70	22	A/6480/53	29	B/1900/53	38
A/0600/PB17	4	A/2200/60	14	A/4080/53	23	A/6480/60	29	B/1900/60	38
A/0600/PC17	4	A/2200/65	14	A/4080/60	23	A/6480/62	29	B/1900/70	38
A/0600/PC21	4	A/2202/53	14	A/4082/50	23	A/6480/65	29	B/1950/48	38
A/0601/17	4	A/2202/60	14	A/4082/53	23	A/6480/70	29	B/1950/53	38
A/0601/21	4	A/2280/60	15	A/4082/70	23	A/6560/PB08	28	B/1950/60	38
A/0601/25	4	A/2320/53	15	A/4240/53	23	A/6560/PB17	28	B/2050/50	38
A/0602/15	4	A/2360/60	14	A/4400/50	24	A/6590/53	280	B/2150/48	39
A/0602/17	4	A/2370/53	14	A/4400/53	24	A/6640/53	30	B/2300/PB07	39
A/0603/15	4	A/2372/53	14	A/4400/60	24	A/6640/60	30	B/2300/PB08	39
A/0603/17	4	A/2374/53	14	A/4440/50	23	A/6640/62	30	B/2350/PB08	39
A/0604/17	4	A/2380/53	14	A/4520/53	24	A/6640/65	30	B/2550/08	39
A/0606/15	3	A/2400/60	15	A/4560/53	24	A/6680/50	29	B/2550/PB17	39
A/0606/17	3	A/2400/63	15	A/4560/60	24	A/6680/53	29	B/2710/PB05	39
A/0620/21	7	A/2520/61	15	A/4720/53	26	A/6680/60	29	B/2975/53	40
A/0620/25	7	A/2560/60	15	A/4720/60	26	A/6720/53	30	B/3010/48	40
A/0620/27	7	A/2560/65	15	A/4720/65	26	A/6720/70	30	B/3200/48	40
A/0620/PB08	7	A/2600/53	15	A/4760/53	26	A/6800/08	30	B/3620/44	40
A/0620/PB17	7	A/2600/65	15	A/4760/60	26	A/6880/08	30	B/3640/03	297
A/0621/21	7	A/2840/48	16	A/4840/53	26	A/6880/17	30	B/3647/45	297
A/0621/25	7	A/2930/43	17	A/4840/60	26	A/6920/08	30	B/3647/47	297
A/0621/27	7	A/2960/08	17	A/4840/63	26	A/6920/17	30	B/3750/53	41
A/0621/PB15	7	A/3002/46	17	A/4840/65	26	A/6960/08	30	B/3750/60	41
A/0621/PB17	7	A/3040/46	16	A/4840/70	26	A/6960/PB17	30	B/3750/65	41
A/0622/PB17	7	A/3042/46	16	A/4880/50	26	A/7000/08	31	B/3760/53	41
A/0623/15	7	A/3150/44	17	A/4880/53	26	A/7000/PB17	31	B/3760/60	41
A/0623/17	7	A/3222/21	19	A/4880/60	26	A/7240/PB08	31	B/3760/65	41
A/0624/17	7	A/3222/PB17	19	A/4880/63	26	A/7240/PB17	31	B/3760/70	41
A/0626/15	6	A/3240/PB15	20	A/4920/53	24	A/7280/PB08	31	B/3800/53	41
A/0626/17	6	A/3240/PB17	20	A/4960/53	24	A/7280/PB17	31	B/3800/60	41
A/0626/21	6	A/3280/21	19	A/5040/53	25	A/7300/46	31	B/3800/62	41
A/0626/25SS	6	A/3280/25	19	A/5080/53	24	A/7360/48	31	B/3800/70	41
A/0626/27SS	6	A/3280/PB15	19	A/5120/60	25	A/7360/53	31	B/3820/53	41
A/0626/DH25	6	A/3280/PB17	19	A/5120/65	25	A/7486/50	31	B/3850/53	42
A/0626/PB17	6	A/3285/PB17	19	A/5160/50	25	A/7490/PB05	32	B/4000/PB05	42
A/0627/15	6	A/3290/PB08	19	A/5160/60	25	A/7600/PB08	32	B/4000/PB08	42

code	page	code	page	code	page	code	page	code	page
B/4055/PB05	42	C/0640/48	62	C/3961/46	62	C/6230/53	70	C/8921/25	77
B/4300/07	42	C/0680/46	62	C/3962/48	62	C/6240/53	69	C/8921/27	77
B/4310/PB05	42	C/0680/48	62	C/3962/53	62	C/6280/05	70	C/8921/PB17	77
B/4320/43	42	C/0680/50	62	C/3990/60	63	C/6360/48	71	C/8933/15	77
B/4320/44	42	C/0680/60	62	C/4000/60	63	C/6400/50	71	C/8933/17	77
B/4320/46	42	C/0800/48	54	C/4010/60	63	C/6520/48	72	C/8936/15	77
B/4320L/08	43	C/0840/48	55	C/4020/60	63	C/6520/53	72	C/8936/17	77
B/4330/44	43	C/0880/79	55	C/4040/60	63	C/6520/60	72	C/8936/27	77
B/4330/46	43	C/0920/50	55	C/4040/65	63	C/6640/48	71	C/8936/27SS	77
B/4330L/08	43	C/0920/53	55	C/4080/50	63	C/6560/53	71	C/8936/PB17	77
B/4350/PB07	43	C/0960/50	56	C/4120/53	63	C/6560/60	71	C/9000/PB08	78
B/4350/PB08	43	C/1000/53	56	C/4120/60	63	C/6600/48	71	C/9000/PB17	78
B/4400/PB05	43	C/1040/60	56	C/4280/53	63	C/6640/48	72	C/9040/21	78
B/4540/PB05	43	C/1040/63	56	C/4280/68	63	C/6640/53	72	C/9040/25	78
B/4550/PB05	43	C/1040/65	56	C/4320/50	63	C/6680/48	72	C/9040/PB08	78
B/4630/44	43	C/1040/70	56	C/4320/53	63	C/6680/50	72	C/9040/PB17	78
B/4630/46	43	C/1120/50	56	C/4322/47	63	C/6840/50	72	C/9050/PB08	78
B/4630L/05	43	C/1120/53	56	C/4345/20	64	C/6840/53	72	C/9050/PB17	78
B/4630L/08	43	C/1120/60	56	C/4360/50	64	C/6940/PB05	72	C/9080/08	78
B/4631L/08	43	C/1120/70	56	C/4360/53	64	C/7000/08	72	C/9080/17	78
B/4660/43	43	C/1240/53	57	C/4400/53	64	C/7020/46	72	C/9150/46	78
B/4690/44	44	C/1240/60	57	C/4600/48	64	C/7050/50	74	C/9152/48	78
B/4690L/08	44	C/1240/65	57	C/4640/43	64	C/7050/53	74	C/9160/46	78
B/4760/77	46	C/1320/60	56	C/4680/17	65	C/7120/53	73	D/0008/44	78
B/4765/77	46	C/1320/63	56	C/4680/25	65	C/7160/53	73	D/0020/05	79
B/4770/77	46	C/1320/70	56	C/4680/PB17	65	C/7160/60	73	D/0020/08	79
B/4791/46	49	C/1400/53	56	C/4681/15	65	C/7170/50	73	D/0030/46	79
B/4800/15	49	C/1400/62	56	C/4681/17	65	C/7210/53	74	D/0035/44	79
B/4800/17	49	C/1500/50	56	C/4681/PB17	65	C/7240/46	76	D/0050/17	79
B/4800/21	49	C/1500/53	56	C/4750/05	65	C/7320/PB08	76	D/0052/17	79
B/4800/25	49	C/1500/60	56	C/4756/17	65	C/7360/PB08	76	D/0100/50	79
B/4800/PB17	49	C/1500/65	56	C/4759/05	65	C/7360/PB17	76	D/0122/48	79
B/4850/08	49	C/1500/70	56	C/4760/53	65	C/7400/53	76	D/0124/48	79
B/4850/15	49	C/1600/53	57	C/4880/PB08	65	C/7440/44	76	D/0130/48	79
B/4850/17	49	C/1610/53	57	C/4920/08	67	C/7450L/05	76	D/0150/08	80
B/4850/25	49	C/1640/60	57	C/4920/15	67	C/7460/44	76	D/0250/05	80
B/4850/PB17	49	C/1640/65	57	C/4920/17	67	C/7460L/08	76	D/0310/46	80
B/4860/PB08	49	C/1642/50	57	C/4920/21	67	C/7480/43	76	D/0370/PB08	80
B/4900/25	51	C/1642/53	57	C/4920/25	67	C/7480/44	76	D/0370/PB17	80
B/4900/PB08	51	C/1642/60	57	C/4920/27	67	C/7551/45	76	D/0450/50	100
B/4900/PB17	51	C/1720/60	57	C/4920/PB17	67	C/7760/50	74	D/0450/53	100
B/4950/08	52	C/1820/53	57	C/4960/15	66	C/7760/53	74	D/0450/68	100
B/4950/17	52	C/1880/53	58	C/4960/17	66	C/7840/50	74	D/0452/48	100
B/4950/21	52	C/1880/60	58	C/4960/25	66	C/7880/50	74	D/0452/50	100
B/4950/25	52	C/1880/63	58	C/4960/27	66	C/7880/53	74	D/0500/48	100
B/4950/27	52	C/1882/53	58	C/4960/PB15	66	C/7880/70	74	D/0500/70	100
B/4951/15	51	C/1882/60	58	C/4960/PB17	66	C/7920/50	74	D/0600/53	101
B/4951/17	51	C/1960/53	58	C/4961/17	66	C/7920/53	74	D/0600/70	101
B/4951/24	51	C/2100/60	58	C/4962/15	66	C/7920/65	74	D/0650/48	100
B/4951/27	51	C/2120/60	58	C/4962/17	66	C/7960/48	74	D/0650/50	100
B/4960/17	51	C/2160/50	58	C/4963/15	66	C/7960/60	74	D/0650/53	100
B/4960/21	51	C/2240/53	58	C/4963/17	66	C/8080/53	75	D/0650/60	100
B/5000/17	51	C/2280/63	59	C/4966/15	66	C/8200/53	75	D/0650/65	100
B/5000/21	51	C/2320/53	59	C/4966/17	66	C/8320/48	75	D/0650/70	100
B/5100/25	50	C/2360/53	59	C/4966/27SS	66	C/8320/53	75	D/0700/48	100
B/5100/PB17	50	C/2400/53	58	C/4966/PB17	66	C/8480/60	75	D/0700/50	100
B/5150/08	50	C/2440/53	58	C/4970/PB17	66	C/8480/63	75	D/0700/53	100
B/5150/25	50	C/2440/60	58	C/4990/08	67	C/8480/65	75	D/0700/60	100
B/5150/PB17	50	C/2520/53	59	C/5040/PB08	67	C/8520/50	75	D/0700/68	100
B/5200/15	50	C/2555/50	59	C/5360/48	67	C/8520/53	75	D/0700/70	100
B/5200/25	50	C/2560/50	59	C/5480/48	69	C/8520/60	75	D/0750/50	101
B/5200/PB17	50	C/2640/48	59	C/5480/53	69	C/8520/63	75	D/0755/46	80
B/5210/15	50	C/2920/PB08	60	C/5560/53	69	C/8520/65	75	D/0760/46	80
B/5210/PB17	50	C/2920/PB17	60	C/5680/53	69	C/8560/50	75	D/0765/PB07	80
B/5250/08	51	C/3090/53	60	C/5720/53	69	C/8560/53	75	D/0800/48	80
B/5250/17	51	C/3091/53	60	C/5840/53	69	C/8560/60	75	D/1250/PB08	80
B/5250/25	51	C/3092/53	60	C/5840/62	69	C/8560/63	75	D/1338/PB07	81
B/5251/08	50	C/3093/53	60	C/5880/50	69	C/8560/65	75	D/1340/PB08	81
B/5251/17	50	C/3100/53	60	C/5880/53	69	C/8560/70	75	D/1341/05	81
B/5260/PB07	52	C/3160/44	60	C/6002/46	69	C/8600/50	75	D/1345/53	81
B/5300/08	52	C/3240/53	60	C/6098/08	69	C/8600/60	75	D/1350/17	81
B/5300/17	52	C/3280/17	60	C/6160/53	70	C/8760/53	74	D/1350/27	81
B/5500/PB08	53	C/3320/48	60	C/6160/60	70	C/8800/48	74	D/1500/08	81
B/5550/PB08	53	C/3320/53	60	C/6160/62	70	C/8840/50	75	D/1500/17	81
C/0080/48	53	C/3360/44	61	C/6160/65	70	C/8850/43	76	D/1500/27	81
C/0280/48	54	C/3400/08	61	C/6160/70	70	C/8920/17	77	D/1550/PB05	81
C/0360/48	54	C/3440/05	61	C/6180/53	70	C/8920/21	77	D/1550/PB15	81
C/0420/50	54	C/3680/48	61	C/6200/53	70	C/8920/25	77	D/1600/15	82
C/0480/48	54	C/3720/48	61	C/6200/60	70	C/8920/PB17	77	D/1600/17	82
C/0480/53	54	C/3780/48	61	C/6200/62	70	C/8921/15	77	D/1600/PB17	82
C/0520/48	54	C/3960/53	62	C/6200/65	70	C/8921/17	77	D/1610/08	82
C/0640/46	62	C/3960/70	62	C/6200/70	70	C/8921/21	77	D/1750/08	82

code	page	code	page	code	page	code	page	code	page
D/1750/17	82	D/3100/45	87	D/4700/50	93	E/0850/17	99	F/1950/50	107
D/1750/21	82	D/3200/04	87	D/4750/46	93	E/0850/21	99	F/1952/48	107
D/1750/25	82	D/3220/46	88	D/4850/45	93	E/0850/24	99	F/1952/53	107
D/1751/15	82	D/3280/PB08	88	D/4865/48	94	E/0850/25	99	F/1952/60	107
D/1751/17	82	D/3400/08	88	D/5000/15	88	E/0850/27	99	F/2070/53	107
D/1751/27	82	D/3410/08	89	D/5000/17	88	E/0850/PB17	99	F/2080/PB17	107
D/1756/15	82	D/3410/17	89	D/5000/21	88	E/0900/15	99	F/2250/53	107
D/1756/17	82	D/3411/08	88	D/5000/99	88	E/0900/17	99	F/2250/60	107
D/1756/PB17	82	D/3411/17	88	D/5000/PB17	88	E/0900/21	99	F/2025/46	103
D/1820/44	82	D/3411/PB17	88	D/5002/15	88	E/0900/25	99	G/0050/48	108
D/1850/08	84	D/3450/08	89	D/5002/17	88	E/0900/27	99	G/0150/53	108
D/1850/15	84	D/3550/46	89	D/5002/21	88	E/0900/DH25	99	G/0200/43	108
D/1850/17	84	D/3550/48	89	D/5002/25	88	E/0900/PB17	99	G/0275/46	108
D/1850/21	84	D/3600/46	89	D/5010/17	88	E/0900/PC17	99	G/0300/50	108
D/1850/25	84	D/3600/48	89	D/5051/44	94	E/0903/15	98	G/0300/53	108
D/1850/25SS	84	D/3650/44	89	D/5100/99	94	E/0903/17	98	G/0400/60	109
D/1850/27	84	D/3802/PB05	89	D/5150/46	94	E/0906/15	98	G/0450/53	109
D/1850/27SS	84	D/3802/PB08	89	D/5290/05	94	E/0906/17	98	G/0450/60	109
D/1850/DH25	84	D/3820/PB05	90	D/5290/17	94	E/0906/25SS	98	G/0450/61	109
D/1850/PB17	84	D/3820/PB07	90	D/5296/44	94	E/0906/27SS	98	G/0450/65	109
D/1852/15	84	D/3830/PB08	90	D/5297/44	94	E/0906/DH25	98	G/0500/53	108
D/1852/17	84	D/3840/08	91	D/5311/46	94	E/0906/PB17	98	G/0500/60	108
D/1852/21	84	D/3840/15	91	D/5319/05	95	E/0950/08	99	G/0500/61	108
D/1852/24	84	D/3840/17	91	E/0050/PB08	95	E/0950/17	99	G/0500/65	108
D/1852/25	84	D/3840/21	91	E/0050/PB17	95	E/1000/08	99	G/0500/70	108
D/1852/27	84	D/3840/25	91	E/0100/46	95	E/1100/08	99	G/0513/50	109
D/1852/PB15	84	D/3840/27	91	E/0100/48	95	E/1130/PB05	99	G/0514/50	109
D/1852/PB17	84	D/3840/PB17	91	E/0200/46	95	E/1300/17	85	G/0518/PB08	109
D/1853/15	84	D/3841/08	90	E/0200/46	95	E/1400/17	102	G/0600/08	109
D/1853/17	84	D/3841/15	90	E/0300/53	96	E/1450/15	102	G/0600/17	109
D/1854/PB15	84	D/3841/17	90	E/0350/15	101	E/1450/17	102	G/0600/25	109
D/1855/17	83	D/3841/24	90	E/0350/17	101	E/1450/21	102	G/0650/08	109
D/1856/15	83	D/3841/25	90	E/0350/25	101	E/1450/25	102	G/0650/17	109
D/1856/17	83	D/3841/DH25	90	E/0350/PB08	101	E/1450/27	102	G/0650/25	109
D/1856/21	83	D/3841/PB17	90	E/0350/PB17	101	E/1450/PB17	102	G/0650/27	109
D/1856/25SS	83	D/3842/15	90	E/0352/08	96	E/1455/15	102	G/0800/48	110
D/1856/27SS	83	D/3842/17	90	E/0352/17	96	E/1455/17	102	G/0800/50	110
D/1856/PB17	83	D/3842/PB17	90	E/0352/25	96	E/1455/25	102	G/0800/60	110
D/1857/15	83	D/3846/15	90	E/0352/27	96	E/1455/27	102	G/0803/48	110
D/1857/17	83	D/3846/17	90	E/0352/PB17	96	E/1455/PB17	102	G/0900/60	110
D/1857/PB17	83	D/3846/27SS	90	E/0500DF/08	97	E/1460/08	102	G/0910/07	110
D/1859/15	83	D/3846/PB17	90	E/0500DF/15	97	E/1500/05	102	G/0950/48	110
D/1859/17	83	D/3847/PB17	90	E/0500DF/17	97	F/1170/50	103	G/1050/53	110
D/1861/PB17	83	D/3898/48	91	E/0500DF/C17	97	F/1173/50	103	G/1100/48	110
D/2050/08	84	D/3900/48	91	E/0500DF/P21	97	F/1198/40	103	H/0010/46	111
D/2050/17	84	D/3950/50	91	E/0500DF/P24	97	F/1200/46	104	H/0095/45	111
D/2100/08	85	D/4016/46	91	E/0550DF/15	97	F/1200/48	104	H/0100/08	112
D/2100/17	85	D/4050/08	91	E/0550DF/17	97	F/1250/44	104	H/0100/15	112
D/2110/08	85	D/4050/17	91	E/0550DF/21	97	F/1300/48	104	H/0100/17	112
D/2110/17	85	D/4055/60	40	E/0550DF/25	97	F/1300/53	104	H/0106/15	111
D/2250/48	85	D/4120/21	92	E/0550DF/C17	97	F/1325/21	289	H/0106/17	111
D/2350/08	85	D/4120/25	92	E/0551DF/17	97	F/1350/08	104	H/0106/PB17	111
D/2400/17	87	D/4120/PB08	92	E/0551DF/C17	97	F/1400/08	104	H/0107/15	111
D/2400/21	87	D/4120/PB17	92	E/0555DF/17	97	F/1451/25	105	H/0107/17	111
D/2400/25	87	D/4121/24	92	E/0555DF/21	97	F/1451/PB17	105	H/0155/08	112
D/2400/27	87	D/4121/25	92	E/0555DF/25	97	F/1501/25	104	H/0155/17	112
D/2400/DH25	87	D/4121/28	92	E/0555DF/C17	97	F/1501/PB08	104	H/0155/21	112
D/2400/PB08	87	D/4121/PB08	92	E/0600DF/15	96	F/1501/PB15	104	H/0155/25	112
D/2400/PB17	87	D/4121/PB15	92	E/0600DF/17	96	F/1501/PB17	104	H/0155/27	112
D/2450/15	86	D/4121/PB17	92	E/0600DF/21	96	F/1510/21	105	H/0160/08	111
D/2450/17	86	D/4125/99	91	E/0600DF/25	96	F/1515/25	105	H/0160/15	111
D/2450/21	86	D/4125/PB07	91	E/0600DF/C17	96	F/1520/21	105	H/0160/17	111
D/2450/25	86	D/4125/PB08	91	E/0600DF/P25	96	F/1550/PB08	105	H/0160/21	111
D/2450/27	86	D/4125/PB17	91	E/0650DF/15	96	F/1550/PB17	105	H/0160/27	111
D/2450/DH25	86	D/4127/PB17	92	E/0650DF/17	96	F/1551/27	105	H/0166/07	112
D/2450/PB08	86	D/4140/05	92	E/0650DF/21	96	F/1551/PB08	105	H/0168/46	112
D/2450/PB15	86	D/4470/17	87	E/0650DF/24	96	F/1551/PB17	105	H/0168/48	112
D/2450/PB17	86	D/4472/05	92	E/0650DF/25	96	F/1750/25	106	H/0169/46	112
D/2455/17	86	D/4500/08	93	E/0650DF/28	96	F/1750/PB15	106	H/0250/05	112
D/2500/15	87	D/4500/21	93	E/0650DF/C17	96	F/1750/PB17	106	H/0262/43	112
D/2500/17	87	D/4500/25	93	E/0665DF/15	96	F/1800/27	106	H/0262/44	112
D/2502/15	86	D/4500/PB17	93	E/0665DF/17	96	F/1800/PB08	106	H/0270/05	112
D/2502/17	86	D/4550/15	93	E/0700/08	98	F/1800/PB17	106	H/0285/04	113
D/2503/17	86	D/4550/25	93	E/0700/17	98	F/1820/PB08	106	H/0300/53	113
D/2506/15	86	D/4550/PB15	93	E/0700/PB17	98	F/1820/PB17	106	H/0300/60	113
D/2506/17	86	D/4550/PB17	93	E/0701/08	98	F/1850/27	106	H/0300/65	113
D/2506/PB17	86	D/4551/PB15	92	E/0701/17	98	F/1850/PB08	106	H/0300/70	113
D/2950/08	85	D/4551/PB17	92	E/0750/15	98	F/1850/PB17	106	H/0320/53	113
D/2950/17	85	D/4556/PB15	92	E/0750/17	98	F/1900/25	106	H/0320/60	113
D/2951/08	85	D/4556/PB17	92	E/0750/25	98	F/1900/PB08	106	H/0320/65	113
D/2951/17	85	D/4600/48	93	E/0800/PB17	98	F/1900/PB15	106	H/0350/08	115
D/3000/46	87	D/4700/48	93	E/0850/15	99	F/1900/PB17	106	H/0350/15	115

code	page	code	page	code	page	code	page	code	page
H/0350/17	115	H/1100/PB15	120	I/0650/48	130	J/2820/21	45	J/3900/17	103
H/0350/21	115	H/1100/PB17	120	I/0697/04	130	J/2820/24	45	J/3910/17	103
H/0350/25	115	H/1111/PB17	119	I/0700/PB05	130	J/2820C/05	46	J/3910/PB15	103
H/0350/27	115	H/1150/21	119	I/0750/48	130	J/2820C/90	46	J/3920/17	103
H/0350/27SS	115	H/1150/25	119	I/0800/PB05	130	J/2821/15	45	J/3920/PB15	103
H/0350/PB17	115	H/1150/26	119	I/0831/PB05	130	J/2825/08	45	J/4000/PB17	103
H/0355/15	114	H/1150/PB15	119	I/0850/50	132	J/2825/15	45	J/4010/15	103
H/0355/17	114	H/1150/PB17	119	I/0850/60	132	J/2825/17	45	J/4010/PB17	103
H/0355/21	114	H/1180/PB08	119	I/0850/63	132	J/2825/21	45	J/4100/08	104
H/0400/08	115	H/1185/PB17	119	I/0855/60	132	J/2825/24	45	J/4200/PB08	107
H/0400/17	115	H/1190/PB08	118	I/0855/70	132	J/2825C/05	46	J/4250/17	120
H/0401/15	134	H/1190/PB17	118	I/0950/53	131	J/2825C/90	46	J/4270/17	120
H/0401/21	134	H/1196/PB07	9	I/1013/60	133	J/2830/08	45	J/4270/25	120
H/0401/25	134	H/1196/PB08	9	I/1013/70	133	J/2830/15	45	J/4310/15	121
H/0401/27	134	H/1196/PB15	9	I/1035/50	132	J/2830/17	45	J/4310/17	121
H/0401/PB17	134	H/1196/PB17	9	I/1035/53	132	J/2840/08	45	J/4315/15	121
H/0402/PB15	114	H/1200/25	119	I/1035/63	132	J/2840/15	45	J/4315/17	121
H/0402/PB17	114	H/1200/PB08	119	I/1045/PB17	132	J/2840/17	45	J/4320/15	121
H/0403/15	114	H/1200/PB15	119	I/1047/PB08	132	J/2845/15	45	J/4320/17	121
H/0403/17	114	H/1200/PB17	119	I/1060/53	132	J/2850/08	45	J/4320/21	121
H/0405/21	134	H/1200/PC17	119	I/1070/50	132	J/2850/15	45	J/4320/24	121
H/0405/25	134	H/1202/PB08	9	I/1070/53	132	J/2850/17	45	J/4320C/05	121
H/0405/25SS	134	H/1202/PB15	9	I/1070/60	132	J/2850/21	45	J/4320C/90	121
H/0405/27SS	134	H/1202/PB17	9	I/1075/50	132	J/2850/24	45	J/4330/15	121
H/0405/PB15	134	H/1205/07	9	I/1075/53	132	J/2850C/05	46	J/4330/17	121
H/0405/PB17	134	H/1205/08	9	I/1075/60	132	J/2850C/90	46	J/4330/25	121
H/0406/15	114	H/1205/15	9	I/1100/53	133	J/2855/08	45	J/4330C/05	121
H/0406/17	114	H/1300/15	123	I/1150/53	133	J/2855/15	45	J/4330C/90	121
H/0406/21	114	H/1300/17	123	I/1154/61	133	J/2855/17	45	J/4340/15	121
H/0406/25SS	114	H/1350/15	122	I/1155/60	133	J/2855/21	45	J/4340/17	121
H/0406/27SS	114	H/1350/17	122	I/1155/62	133	J/2855/24	45	J/4350/15	120
H/0406/DH25	114	H/1400/15	122	I/1155/65	133	J/2855C/05	46	J/4350/17	120
H/0406/PB17	114	H/1400/17	122	I/1157/50	133	J/2855C/90	46	J/4350/21	120
H/0408/15	134	H/1420/15	122	I/1157/53	133	J/2860/08	45	J/4350/24	120
H/0408/17	134	H/1420/17	122	I/1157/60	133	J/2860/15	45	J/4350C/05	120
H/0409/PB15	114	H/1425/17	122	I/1159/60	133	J/2860/17	45	J/4350C/90	120
H/0409/PB17	114	H/1430/90	123	I/1160/53	133	J/2860/24	45	J/4360/17	120
H/0410/PB15	134	H/1432/08	9	I/1160/60	133	J/2860C/05	46	J/4360/PB15	120
H/0410/PB17	134	H/1435/07	9	I/1165/60	132	J/2860C/90	46	J/4400/PB08	130
H/0411/21	134	H/1435/08	9	I/1170/60	133	J/2865/17	45	J/4400/PB15	130
H/0411/25	134	H/1435/15	9	I/1170/63	133	J/2870/08	45	J/4400/PB17	130
H/0411/DH25	134	H/1550/15	123	IE/1011/53	15	J/2870/15	45	J/4410/15	130
H/0411/PB15	134	H/1550/17	123	IE/1015/48	15	J/2870/17	45	J/4410/17	130
H/0411/PB17	134	H/1600/15	123	IE/1015/53	15	J/2870/21	45	J/4410C/05	130
H/0420/21	113	H/1600/17	123	IE/1020/53	15	J/2870/24	45	J/4410C/90	130
H/0420/25	113	H/1650/17	123	IE/1040/53	16	J/2870C/05	46	J/4450/15	129
H/0420/PB17	113	H/1750/15	124	IE/1045/48	16	J/2870C/90	46	J/4450/17	129
H/0421/25	113	H/1750/17	124	IE/1050/53	16	J/2875/15	45	J/4500/PB15	129
H/0421/27	113	H/1800/15	124	IE/1502/53	16	J/2880/08	45	J/4500/PB17	129
H/0421/PB08	113	H/1800/17	124	IE/1505/53	16	J/2880/15	45	J/4534/05	31
H/0421/PB17	113	H/1800/25	124	IE/2500/53	16	J/2880/17	45	J/4542/05	20
H/0438/46	115	H/1811/17	124	J/0100/PB08	19	J/2880/21	45	J/4544/05	42
H/0438/48	115	H/1820/15	124	J/0200/PB08	21	J/2880C/05	46	J/4546/05	64
H/0439/46	115	H/1823/15	9	J/0549/PB17	3	J/2880C/90	46	J/4548/05	104
H/0440/07	115	H/1830/08	9	J/0550/17	3	J/2885/08	45	J/4550/05	147
H/0450/27	115	H/1860/15	125	J/0551C/05	3	J/2885/15	45	J/4552/05	31
H/0450/PB08	115	H/1862/15	125	J/0551C/90	3	J/2885/17	45	J/4554/05	61
H/0450/PB17	115	H/1900/48	125	J/1100/17	27	J/2885/21	45	J/4556/05	174
H/0460/05	115	H/1900/53	125	J/1101/15	27	J/2885/24	45	J/4558/05	198
H/0467/48	116	H/1900/60	125	J/1101/PB17	27	J/2885C/05	46	J/4560/05	201
H/0468/17	116	H/2001/48	125	J/1500/PB15	30	J/2885C/90	46	J/4562/05	232
H/0480/17	116	H/2350/44	125	J/1500/PB17	30	J/2892/15	205	J/4564/05	272
H/0500/PB08	116	H/2500/48	126	J/1500C/05	30	J/2980/05	59	J/4600/PB08	140
H/0550/PB07	116	H/2650/PB08	126	J/1500C/90	30	J/2983/05	205	J/4600/PB15	140
H/0550/PB17	116	I/0010/48	126	J/1700/PB15	36	J/2984/05	205	J/4600/PB17	140
H/0560/PB08	116	I/0010/53	126	J/2100/15	37	J/2986/05	205	J/4620/PB08	140
H/0564/21	274	I/0012/48	126	J/2100/17	37	J/3000/15	61	J/4620/PB15	140
H/0600/50	116	I/0012/60	126	J/2150/15	37	J/3000/17	61	J/4620/PB17	140
H/0650/53	117	I/0012/65	126	J/2300/07	40	J/3500/PC15	67	J/5000/21	146
H/0700/48	116	I/0012/68	126	J/2300/08	40	J/3700/15	101	J/5100/08	160
H/0700/50	116	I/0300/46	129	J/2500/17	49	J/3700/17	101	J/5300/PB05	168
H/0850/07	117	I/0385/48	129	J/2800/08	45	J/3700/24	101	J/5500/PB08	171
H/0900/27	117	I/0450/48	129	J/2800/15	45	J/3700C/05	101	J/5500/PB15	171
H/0900/PB08	117	I/0450/50	129	J/2800/17	45	J/3700C/90	101	J/5545/PB17	177
H/0900/PB17	117	I/0450/53	129	J/2800C/05	46	J/3710/17	100	J/5550/24	177
H/0950/PB08	117	I/0450/65	129	J/2800C/90	46	J/3720/17	101	J/5550/PB15	177
H/0950/PB17	117	I/0450/70	129	J/2810/08	45	J/3720/PB15	101	J/5550/PB17	177
H/0955/08	9	I/0500/48	129	J/2810/15	45	J/3720C/05	101	J/5550C/05	177
H/1000/PB17	120	I/0500/50	129	J/2810/17	45	J/3720C/90	101	J/5550C/90	177
H/1050/26	120	I/0500/53	129	J/2820/08	45	J/3800/15	103	J/5600/17	177
H/1050/PB17	120	I/0505/50	129	J/2820/15	45	J/3800/17	103	J/5600/PB15	177
H/1100/26	120	I/0510/48	130	J/2820/17	45	J/3900/15	103	J/5650C/05	181

code	page	code	page	code	page	code	page	code	page
J/5650C/90	181	J/7625/PB15	246	J/8067/05	256	J/8440/PB15	267	L/0250/60	141
J/5655/PB08	180	J/7630/15	246	J/8067/08	256	J/8450/15	267	L/0350/53	142
J/5820/PB15	187	J/7630/17	246	J/8070/05	256	J/8450/17	267	L/0350/60	142
J/5820/PB17	187	J/7630/21	246	J/8070/08	256	J/8450/24	267	L/0451/46	142
J/5900/PB08	196	J/7630/24	246	J/8100/05	256	J/8460/15	194	L/0451/48	142
J/6100/15	203	J/7630/27	246	J/8100/08	256	J/8460/17	194	L/0455/46	142
J/6100/17	203	J/7630C/05	246	J/8110/05	256	J/8460/24	194	L/0455/48	142
J/6100C/05	203	J/7630C/90	246	J/8110/08	256	J/8460C/05	269	L/0460/07	142
J/6100C/90	203	J/7640/15	247	J/8120/05	256	J/8460C/90	269	L/0460/15	142
J/6212/15	193	J/7640/17	247	J/8120/08	256	J/8470/17	267	L/0500/46	142
J/6212/17	193	J/7640/21	247	J/8150/05	256	J/8470/24	267	L/0500/48	142
J/6212C/05	207	J/7640/24	247	J/8150/08	256	J/8470/PB15	267	L/0510/48	143
J/6212C/90	207	J/7650/PB08	243	J/8166/08	256	J/8490C/05	269	L/0560/53	143
J/6220/15	207	J/7660/15	194	J/8200/08	256	J/8490C/90	269	L/0565/48	143
J/6220/17	207	J/7660/17	194	J/8205/05	12	J/8500/17	277	L/0565/99	143
J/6610/15	212	J/7660/21	194	J/8206/08	12	J/8750/08	268	L/0610/53	144
J/6610/17	212	J/7660/24	194	J/8210/05	32	J/8750/15	268	L/0700/53	144
J/6612/15	212	J/7660C/05	247	J/8215/08	32	J/8750/17	268	L/0750/53	143
J/6612/17	212	J/7660C/90	247	J/8220/05	35	J/8780/17	268	L/0800/60	144
J/6620/15	212	J/7800/15	246	J/8221/08	35	J/8800/PB08	295	L/0950/50	144
J/6620/17	212	J/7800/17	246	J/8230/05	41	J/9000/15	137	L/0950/53	144
J/6625/15	193	J/7800/21	246	J/8231/08	41	J/9000/PB08	137	L/0950/60	144
J/6630/17	193	J/7800/24	246	J/8235/05	53	J/9027/17	187	L/1000/50	144
J/6630/PB15	193	J/7800/25	246	J/8236/08	53	J/9030/05	304	L/1000/53	144
J/6630C/05	212	J/7810/17	246	J/8240/05	55	K/0050/60	136	L/1000/60	144
J/6630C/90	212	J/7900/15	250	J/8241/08	55	K/0050/63	136	L/1050/53	145
J/6640C/05	212	J/7950/15	194	J/8245/05	68	K/0050/70	136	L/1050/70	145
J/6640C/90	212	J/7950/17	194	J/8246/08	68	K/0090/60	140	L/1100/48	144
J/6690/15	193	J/7950/21	194	J/8250/05	71	K/0100/53	140	L/1100/50	144
J/6690/17	193	J/7950/24	194	J/8251/08	70	K/0100/60	140	L/1150/50	144
J/6700/17	213	J/7950C/05	255	J/8255/05	73	K/0120/80	140	L/1150/53	144
J/6900/15	215	J/7950C/90	255	J/8256/08	72	K/0120/81	140	L/1200/50	144
J/6900/PB17	215	J/7951C/05	255	J/8270/05	131	K/0125/80	140	L/1350/50	146
J/6900C/05	215	J/7951C/90	255	J/8271/08	131	K/0125/81	140	L/1350/53	146
J/6900C/90	215	J/8000/05	12	J/8275/05	143	K/0130/80	140	L/1400/48	145
J/7000/PB17	216	J/8000/08	12	J/8276/08	143	K/0150/80	140	L/1450/53	145
J/7050/15	218	J/8002/05	32	J/8280/05	147	K/0150/81	140	L/1450/60	145
J/7050/PB17	218	J/8002/08	32	J/8281/08	147	K/0160/80	141	L/1500/50	145
J/7300/PB08	225	J/8003/05	33	J/8285/05	150	K/0160/81	141	L/1500/53	145
J/7300/PB15	225	J/8003/08	33	J/8286/08	150	K/0170/81	141	L/1500/60	145
J/7310/15	231	J/8004/05	35	J/8290/05	155	K/0200/15	140	L/1600/53	145
J/7310/17	231	J/8004/08	35	J/8291/08	155	K/0200/21	140	L/1670/53	145
J/7320/PB15	230	J/8005/05	53	J/8292/05	157	K/0210/PB17	141	L/1700/53	145
J/7320/PB17	230	J/8005/08	53	J/8293/08	157	K/0220/15	141	L/1720/53	146
J/7330/15	193	J/8006/05	41	J/8294/05	169	K/0310/21	141	L/1730/48	145
J/7330/17	193	J/8006/08	41	J/8295/05	172	K/1900/15	137	L/1815/45	146
J/7330/24	193	J/8010/05	54	J/8296/08	169	K/1950/15	137	L/1815L/PB05	146
J/7330C/05	230	J/8010/08	54	J/8297/08	171	K/1950/17	137	L/1819/48	146
J/7330C/90	230	J/8015/05	67	J/8298/05	198	K/2000/15	137	L/1822/46	146
J/7340/15	230	J/8015/08	67	J/8299/08	198	K/2000/17	137	L/1840/46	146
J/7340/17	230	J/8020/05	70	J/8300/05	202	K/2100/15	137	L/1850/17	146
J/7350/15	231	J/8020/08	70	J/8301/08	202	K/2100/17	137	L/1860/07	146
J/7350/17	231	J/8025/05	73	J/8305/05	226	K/2110/15	137	L/1900/17	146
J/7370/07	230	J/8025/08	73	J/8306/08	226	K/2110/17	137	L/1950/17	146
J/7370/15	230	J/8025/15	73	J/8309/05	229	K/2150/15	137	L/2000/45	147
J/7370/17	230	J/8028/08	110	J/8310/08	228	K/2150/17	137	L/2050/50	147
J/7380/PB08	230	J/8030/05	131	J/8315/05	232	K/2200/15	137	L/2080/48	148
J/7400/PB17	231	J/8030/08	131	J/8316/08	232	K/2200/17	137	L/2080/53	148
J/7410/PB17	231	J/8035/05	143	J/8320/05	257	K/2250R/15	137	L/2100/50	148
J/7490/17	231	J/8035/08	143	J/8321/08	257	K/2300R/15	137	L/2105/48	148
J/7500/17	231	J/8037/05	147	J/8323/05	257	K/2500/08	137	L/2200/48	148
J/7510/PB15	234	J/8037/08	147	J/8324/08	257	K/2510/08	137	L/2200/50	148
J/7510/PB17	234	J/8040/05	150	J/8325/05	257	K/2515/08	137	L/2200/65	148
J/7520/17	237	J/8040/08	150	J/8326/08	257	K/2520/08	137	L/2200/70	148
J/7520/PB15	237	J/8045/05	155	J/8327/08	257	K/2530/08	137	L/2201/50	148
J/7580/17	236	J/8045/08	155	J/8330/05	257	K/2560/04	137	L/2201/65	148
J/7580/PB15	236	J/8047/05	157	J/8331/08	257	K/2710/99	137	L/2300/48	149
J/7580C/05	237	J/8047/08	157	J/8336/08	257	K/2720/99	137	L/2300/50	149
J/7580C/90	237	J/8050/05	169	J/8340/05	257	K/2730/08	137	L/2300/60	149
J/7590C/05	238	J/8050/08	169	J/8341/08	257	K/2740/99	137	L/2300/68	149
J/7590C/90	238	J/8055/05	171	J/8400/PB15	277	K/2760/45	137	L/2301/53	148
J/7600/PB08	240	J/8055/08	171	J/8400/PB17	277	K/2770/48	137	L/2320/48	149
J/7610/17	194	J/8060/05	201	J/8410/17	277	L/0060/43	141	L/2330/48	149
J/7610/21	194	J/8060/08	201	J/8410/PB15	277	L/0100/PB08	141	L/2350/48	149
J/7610/PB15	194	J/8061/05	226	J/8420/17	267	L/0100/PB17	141	L/2350/68	149
J/7620/15	194	J/8061/08	226	J/8420/PB15	267	L/0150/PB08	141	L/2400/53	149
J/7620/17	194	J/8062/05	228	J/8430/15	194	L/0150/PB17	141	L/2450/48	149
J/7620/21	194	J/8062/08	228	J/8430/17	194	L/0200/53	142	L/2500/46	127
J/7620/24	194	J/8064/05	228	J/8430/24	194	L/0200/60	142	L/2500L/08	149
J/7620C/05	246	J/8064/08	228	J/8430C/05	269	L/0200/65	142	L/2550/15	150
J/7620C/90	246	J/8065/05	232	J/8430C/90	269	L/0200/70	142	L/2550/17	150
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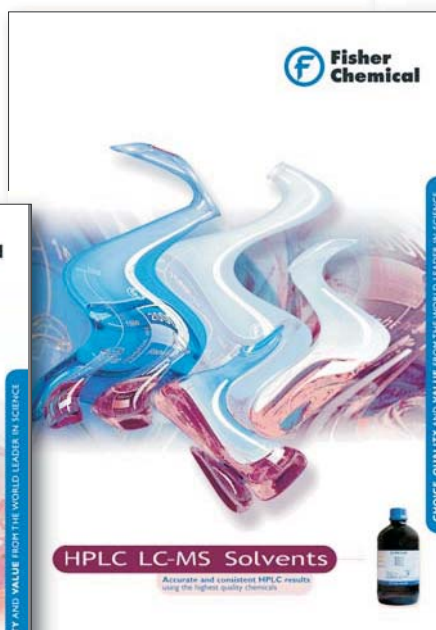
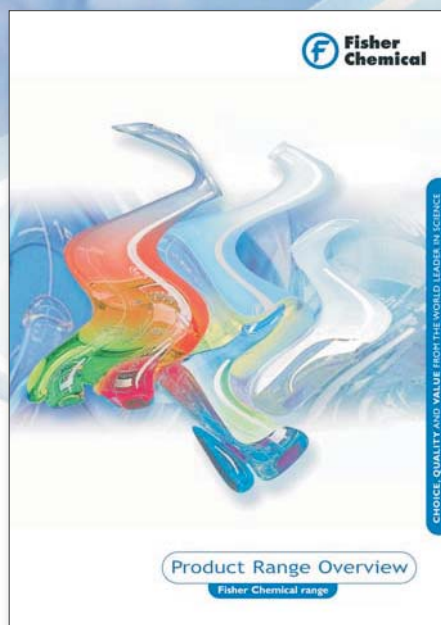
code	page	code	page	code	page	code	page	code	page
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M/0050/50	151	M/3450/48	159	M/4494/PB17	52	N/1370/50	172	O/0500/PB17	180
M/0050/53	151	M/3500/53	160	M/4496/17	52	N/1460/50	172	O/0505/27	180
M/0100/46	151	M/3550/48	159	M/4496/25SS	52	N/1550/50	172	O/0505/PB17	180
M/0200/50	151	M/3650/50	158	M/4650/17	165	N/1550/53	172	O/0510/53	181
M/0200/53	151	M/3650/60	158	M/4650/27	165	N/1600/53	173	O/0515/PB08	180
M/0300/53	151	M/3750/48	158	M/4720/15	165	N/1650/50	172	O/0580/53	181
M/0350/53	151	M/3750/50	158	M/4850/48	165	N/1650/60	172	O/0600/53	181
M/0400/53	151	M/3750/53	158	M/4870/45	127	N/1750/50	173	O/0600/60	181
M/0450/53	152	M/3750/60	158	M/4870/46	127	N/1750/53	173	O/0600/62	181
M/0500/53	152	M/3751/48	158	M/4870L/08	165	N/1850/53	173	O/0600/65	181
M/0515/48	152	M/3754/90	158	M/4950/08	166	N/2000/53	173	O/0650/53	181
M/0550/53	152	M/3800/50	161	M/4950/17	166	N/2000/60	173	O/0650/60	181
M/0550/60	152	M/3851/53	161	M/5000/46	127	N/2051/50	173	O/0650/65	181
M/0550/65	152	M/3876/46	161	M/5000/48	127	N/2110/50	173	O/0650/70	181
M/0600/53	152	M/3900/17	164	M/5000L/08	166	N/2158/48	173	O/0850/53	181
M/0600/60	152	M/3900/25	164	M/5020L/08	166	N/2158/53	173	P/0120/43	181
M/0600/61	152	M/3900/27	164	M/5050/08	166	N/2160/90	173	P/0120/44	181
M/0600/65	152	M/3900/PB17	164	M/5078/08	167	N/2161/90	174	P/0290/48	181
M/0602/17	152	M/3950/15	163	M/5078/15	167	N/2170/PB15	174	P/0295/48	182
M/0650/53	152	M/3950/17	163	M/5078/17	167	N/2170/PB21	174	P/0320/17	182
M/0750/53	153	M/3950/21	163	M/5078/21	167	N/2175/PB15	174	P/0320/25	182
M/0752/53	153	M/3950/25	163	M/5078/25	167	N/2180/PB15	175	P/0360/17	182
M/0752/60	153	M/3950/27	163	M/5078/PB08	167	N/2180/PB17	175	P/0360/25	182
M/0800/53	153	M/3950/DH25	163	M/5078/PB17	167	N/2185/PB15	175	P/0400/17	182
M/0850/53	153	M/3950/PB17	163	M/5080/08	166	N/2185/PB17	175	P/0400/25	182
M/0850/60	153	M/3950/PC17	163	M/5080/17	166	N/2200/PB17	177	P/0405/08	182
M/0950/50	153	M/3950/PC25	163	M/5085/15	166	N/2222/PB17	176	P/0440/53	182
M/0950/53	153	M/4000/15	163	M/5085/17	166	N/2250/PB15	177	P/0480/53	182
M/0955/53	153	M/4000/17	163	M/5085/27	166	N/2250/PB17	177	P/0560/90	183
M/1000/60	154	M/4000/21	163	M/5085/PB15	166	N/2272/PB08	9	P/0600/90	182
M/1000/62	154	M/4000/25	163	M/5085/PB17	166	N/2272/PB15	9	P/0650/90	182
M/1000/65	154	M/4000/27	163	M/5120/05	168	N/2272/PB17	9	P/0680/90	182
M/1050/53	154	M/4000/DH25	163	M/5120/08	168	N/2273/PB08	9	P/0720/90	183
M/1050/60	154	M/4000/PB15	163	M/5125/08	168	N/2273/PB15	9	P/0840/53	183
M/1050/65	154	M/4000/PB17	163	M/5150/45	127	N/2275/07	9	P/0920/48	183
M/1100/53	153	M/4000/PC17	163	M/5150/46	127	N/2275/08	9	P/0960/53	183
M/1100/60	153	M/4000/PC25	163	M/5150L/08	167	N/2275/15	9	P/1006/15	184
M/1100/61	153	M/4020/17	162	M/5170/44	127	N/2300/PB08	176	P/1006/17	184
M/1100/68	153	M/4050/08	163	M/5170/48	127	N/2300/PB15	176	P/1020/08	184
M/1245/46	154	M/4050/15	163	M/5170L/08	167	N/2300/PB17	176	P/1020/17	184
M/1250/53	154	M/4050/17	163	M/5171L/08	167	N/2300/PC17	176	P/1020/21	184
M/1255/53	154	M/4050/25	163	M/5200/PB08	168	N/2600/48	177	P/1020/25	184
M/1300/53	154	M/4050/PB17	163	M/5200/PB17	168	N/3000/27	177	P/1020/PB17	184
M/1300/68	154	M/4053/15	163	M/5345/45	167	N/3000/PB05	177	P/1021/15	184
M/1350/53	154	M/4053/17	163	M/5350/48	167	N/3000/PB08	177	P/1021/17	184
M/1400/48	155	M/4056/15	162	M/5370/45	127	N/3150/46	177	P/1024/15	184
M/1450/48	155	M/4056/17	162	M/5370/46	127	N/3200/48	178	P/1024/17	184
M/1450/53	155	M/4056/21	162	M/5370L/08	168	N/3390/44	178	P/1030/08	183
M/1660/53	156	M/4056/25SS	162	M/5400/50	164	N/3390/46	178	P/1030/17	183
M/1665/50	156	M/4056/27SS	162	M/5650/48	169	N/3650/46	178	P/1030/21	183
M/1665/53	156	M/4056/DH25	162	M/5715/PB08	169	N/3900/05	178	P/1031/08	183
M/1700/50	155	M/4056/PB17	162	M/5750/PB08	170	N/4020/08	178	P/1031/17	183
M/1800/50	156	M/4057/PB17	162	M/5760/48	170	O/0020/05	178	P/1036/07	185
M/1800/53	156	M/4058/15	162	M/P205/46	165	O/0020/08	178	P/1038/46	185
M/1850/53	156	M/4058/17	162	M/P206/46	165	O/0026/07	179	P/1038/48	185
M/1850/60	156	M/4058/21	162	MS/1010/50	169	O/0028/44	178	P/1039/46	184
M/2250/53	156	M/4058/27SS	162	MS/1010/53	169	O/0028/46	178	P/1040/PB08	185
M/2250/60	156	M/4058/DH25	162	MS/1020/53	169	O/0028/48	178	P/1040/PB17	185
M/2350/60	156	M/4058/PB17	162	MS/1020/62	169	O/0029/46	178	P/1041/PB17	185
M/2400/53	157	M/4059/PB17	162	MS/1030/53	168	O/0030/08	179	P/1080/PB08	185
M/2405/53	156	M/4060/PB15	161	MS/1030/62	168	O/0050/08	179	P/1120/48	185
M/2420/45	157	M/4060/PB17	161	MS/1060/53	168	O/0050/17	179	P/1120/53	185
M/2450/60	157	M/4062/15	161	MS/1070/53	168	O/0100/08	179	P/1160/50	185
M/2450/63	157	M/4062/17	161	N/0050/25	170	O/0100/17	179	P/1200/PB08	186
M/2510/45	157	M/4065/48	164	N/0050/PB17	170	O/0105/PB05	179	P/1200/PB17	186
M/2550/48	157	M/4100/15	164	N/0150/53	170	O/0150/17	179	P/1240/PB08	186
M/2650/50	159	M/4100/PB17	164	N/0211/45	170	O/0150/27	179	P/1240/PB17	186
M/2652/47	158	M/4101/08	164	N/0216/46	170	O/0200/15	179	P/1280/PB08	187
M/2652/50	158	M/4101/25	164	N/0230/46	170	O/0200/17	179	P/1280/PB15	187
M/2800/48	159	M/4101/PB17	164	N/0300/50	170	O/0250/08	179	P/1280/PB17	187
M/2800/50	159	M/4150/08	164	N/0350/48	170	O/0250/17	179	P/1290/PB05	186
M/2800/53	159	M/4150/17	164	N/0400/53	171	O/0275/46	179	P/1292/PB08	9
M/2950/46	159	M/4460/PB08	165	N/0500/46	127	O/0300/44	179	P/1292/PB15	9
M/2950/48	159	M/4460/PB17	165	N/0910/48	171	O/0351/46	180	P/1295/07	9
M/3000/48	160	M/4475/46	165	N/1250/45	171	O/0450/25	180	P/1295/08	9
M/3002/48	160	M/4480/PB08	165	N/1250/48	171	O/0450/PB08	180	P/1295/15	9
M/3050/48	160	M/4494/08	52	N/1252/44	171	O/0450/PB15	180	P/1322/48	187
M/3100/48	160	M/4494/17	52	N/1252/45	171	O/0450/PB17	180	P/1360/17	190
M/3200/48	160	M/4494/21	52	N/1270/44	127	O/0450/PB21	180	P/1360/25	190
M/3200/50	160	M/4494/25	52	N/1300/50	172	O/0500/27	180	P/1400/17	188
M/3300/46	128	M/4494/27	52	N/1320/50	172	O/0500/PB08	180	P/1400/21	188

code	page	code	page	code	page	code	page	code	page
P/1400/25	188	P/2960/50	199	P/4600/70	206	P/5840/65	213	P/7490/21	136
P/1440/17	188	P/2960/53	199	P/4640/60	207	P/5840/68	213	P/7490/25	136
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P/1440/25	188	P/3000/53	199	P/4680/53	207	P/5880/50	213	P/7490/DH25	136
P/1440/27	188	P/3040/53	198	P/4680/60	207	P/5880/53	213	P/7490/PB17	136
P/1440/PB17	188	P/3080/48	199	P/4680/65	207	P/5880/60	213	P/7490/PC25	136
P/1480/15	189	P/3160/50	199	P/4690/53	206	P/5880/63	213	P/7500/15	136
P/1480/17	189	P/3160/53	199	P/4720/50	206	P/5880/70	213	P/7500/17	136
P/1480/21	189	P/3200/PB05	199	P/4720/53	206	P/5920/53	213	P/7500/21	136
P/1480/25	189	P/3240/PB08	199	P/4720/60	206	P/5920/60	213	P/7500/24	136
P/1480/27	189	P/3280/PB08	199	P/4720/70	206	P/5960/53	213	P/7500/25	136
P/1520/17	190	P/3280/PB17	199	P/4760/53	208	P/5960/60	213	P/7500/27	136
P/1520/21	190	P/3298/44	200	P/4760/60	208	P/6040/60	214	P/7500/DH25	136
P/1520/25	190	P/3360/53	200	P/4760/63	208	P/6040/63	214	P/7500/PB17	136
P/1560/15	190	P/3360/60	200	P/4760/70	208	P/6080/53	214	P/7500/PC17	136
P/1560/17	190	P/3500/50	200	P/4800/50	208	P/6080/60	214	P/7501/15	135
P/1600/17	190	P/3600/88	200	P/4800/53	208	P/6080/65	214	P/7501/17	135
P/1720/15	187	P/3600/89	200	P/4800/60	208	P/6120/53	193	P/7503/15	136
P/1720/17	187	P/3610/88	200	P/4800/63	208	P/6120/60	193	P/7503/17	136
P/1760/15	188	P/3640/88	200	P/4800/70	208	P/6120/65	193	P/7507/15	135
P/1760/17	188	P/3640/89	200	P/4806/50	207	P/6160/53	214	P/7507/17	135
P/1760/21	188	P/3652/43	200	P/4806/60	207	P/6162/50	214	P/7507/27SS	135
P/1760/25	188	P/3675/08	201	P/4806/70	207	P/6162/60	214	P/7507/PB17	135
P/1760/27	188	P/3676/08	201	P/4810/50	207	P/6280/53	214	P/7508/17	135
P/1800/15	189	P/3677/08	201	P/4840/50	209	P/6320/53	215	P/7509/17	135
P/1800/17	189	P/3678/53	201	P/4840/53	209	P/6320/60	215	P/7520/PB07	219
P/1800/27	189	P/3678/70	201	P/4880/50	209	P/6360/50	214	P/7555/17	136
P/1800/PB17	189	P/3679/53	201	P/4880/53	209	P/6360/53	214	P/7555/21	136
P/1840/17	189	P/3679/70	201	P/4880/60	209	P/6360/70	214	P/7560/25	220
P/1840/27	189	P/3680/53	201	P/4880/70	209	P/6400/53	215	P/7560/PB08	220
P/1880/17	190	P/3681/53	200	P/4920/53	209	P/6440/53	215	P/7560/PB17	220
P/1880/25	190	P/3681/70	200	P/4920/70	209	P/6520/53	215	P/7564/PB08	219
P/1880/27	190	P/3694/15	201	P/4960/53	208	P/6560/50	193	P/7600/08	220
P/1920/17	190	P/3700/48	201	P/4960/60	208	P/6560/53	193	P/7600/17	220
P/1960/17	188	P/3720/48	202	P/4960/70	208	P/6560/65	193	P/7640/08	220
P/1960/99	188	P/3760/53	203	P/4980/53	208	P/6560/70	193	P/7640/17	220
P/2000/17	188	P/3760/60	203	P/5000/53	208	P/6600/53	216	P/7640/PB17	220
P/2040/17	189	P/3760/62	203	P/5080/53	193	P/6640/50	216	P/7760/63	220
P/2082/17	188	P/3760/65	203	P/5080/62	193	P/6640/53	216	P/7800/53	220
P/2084/17	189	P/3761/53	202	P/5120/53	209	P/6720/53	216	P/7920/08	221
P/2084/PB08	189	P/3761/60	202	P/5120/60	209	P/6800/53	216	P/7920/21	221
P/2092/15	188	P/3761/62	202	P/5240/53	210	P/6800/70	216	P/7920/25	221
P/2092/17	188	P/3880/53	203	P/5240/60	210	P/6840/53	216	P/7920/PB17	221
P/2094/15	189	P/3920/50	203	P/5240/65	210	P/6880/53	216	P/7940/PB08	220
P/2094/17	189	P/3920/53	203	P/5240/68	210	P/6880/60	216	P/7940/PB17	220
P/2190/44	195	P/3920/60	203	P/5245/53	209	P/6880/62	216	P/7960/08	220
P/2200/43	127	P/3960/53	204	P/5245/60	209	P/6960/53	217	P/7960/15	220
P/2200/44	127	P/3960/60	204	P/5245/70	209	P/6960/60	217	P/7960/25	220
P/2220/PB05	195	P/4000/50	204	P/5248/53	210	P/6960/65	217	P/7960/PB08	220
P/2315/PB17	195	P/4000/53	204	P/5248/60	210	P/7000/53	217	P/7960/PB15	220
P/2316/PB17	195	P/4000/60	204	P/5250/53	210	P/7000/60	217	P/7960/PB17	220
P/2320/53	196	P/4020/48	203	P/5250/60	210	P/7000/65	217	P/7965/PB05	220
P/2320/60	196	P/4080/53	204	P/5250/70	210	P/7080/53	217	P/7965/PB08	220
P/2360/53	193	P/4080/60	204	P/5320/48	210	P/7140/53	217	P/7980/48	221
P/2360/60	193	P/4080/62	204	P/5320/50	210	P/7170/43	217	P/8000/43	221
P/2360/61	193	P/4080/65	204	P/5320/53	210	P/7200/50	217	P/8000/44	221
P/2360/70	193	P/4120/50	193	P/5320/60	210	P/7240/50	218	P/8040/43	221
P/2390/43	127	P/4120/53	193	P/5420/53	211	P/7240/53	218	P/8080/48	221
P/2390/44	127	P/4120/60	193	P/5440/50	210	P/7280/50	218	P/8120/48	221
P/2392/82	196	P/4120/62	193	P/5440/53	210	P/7280/53	218	P/8122/48	221
P/2400/48	196	P/4160/53	204	P/5440/60	210	P/7300/PB08	218	P/8140/PB05	221
P/2400/53	196	P/4240/53	193	P/5480/60	211	P/7425/48	218	PHJ-830-010X	46
P/2400/68	196	P/4240/60	193	P/5560/60	211	P/7440/08	193	PHJ-830-020L	46
P/2400L/08	196	P/4240/62	193	P/5600/53	211	P/7440/17	193	PHJ-830-030Y	46
P/2400L/17	196	P/4240/65	193	P/5600/60	211	P/7440/25	193	PHJ-830-050C	46
P/2401L/08	196	P/4280/53	204	P/5600/65	211	P/7440/27	193	Q/0120/48	222
P/2420/44	196	P/4280/60	204	P/5600/68	211	P/7450/08	218	Q/0136/46	222
P/2420/46	196	P/4280/65	204	P/5640/53	193	P/7480/08	219	Q/0150/50	222
P/2420L/08	196	P/4280/68	204	P/5640/60	193	P/7480/17	219	Q/0150/53	222
P/2450/44	127	P/4280/70	204	P/5640/65	193	P/7480/21	219	Q/0152/53	222
P/2459/46	197	P/4320/43	208	P/5640/68	193	P/7480/25	219	R/0020/46	222
P/2460/44	127	P/4360/53	205	P/5640/70	193	P/7480/27	219	R/0030/46	222
P/2461/48	197	P/4360/60	205	P/5645/17	211	P/7481/15	219	R/0040/79	222
P/2520/48	197	P/4400/50	205	P/5760/48	212	P/7481/17	219	R/0040/99	222
P/2526/08	195	P/4400/53	205	P/5760/53	212	P/7481/21	219	R/0150/48	222
P/2530/PB05	195	P/4400/60	205	P/5800/48	212	P/7481/25	219	R/0150/50	222
P/2560/PB07	197	P/4400/70	205	P/5800/50	212	P/7481/27	219	R/0200/48	222
P/2600/50	197	P/4440/53	206	P/5800/53	212	P/7481/PB15	219	R/0200/50	222
P/2805/44	197	P/4442/53	193	P/5800/60	212	P/7486/15	218	R/0250/48	223
P/2840/50	197	P/4520/53	206	P/5840/50	213	P/7486/17	218	R/0300/44	223
P/2920/46	198	P/4560/50	206	P/5840/53	213	P/7490/15	136	R/0350/79	223
P/2922/46	198	P/4600/50	206	P/5840/60	213	P/7490/17	136	R/0370/05	223

code	page	code	page	code	page	code	page	code	page
R/0400/46	223	S/1560/65	232	S/3280/65	239	S/4800/70	245	S/6200/53	252
R/0500/44	224	S/1600/53	232	S/3320/53	194	S/4840/60	245	S/6200/70	252
R/0600/43	224	S/1700/53	232	S/3320/60	194	S/4840/63	245	S/6280/46	252
S/0040/48	224	S/1920/48	233	S/3320/65	194	S/4845/60	244	S/6310/63	252
S/0080/48	224	S/2000/53	193	S/3320/70	194	S/4845/70	244	S/6340/17	252
S/0120/46	224	S/2000/60	193	S/3380/53	238	S/4880/50	244	S/6340/25	252
S/0200/PB05	224	S/2000/62	193	S/3480/53	239	S/4880/53	244	S/6400/60	252
S/0280/53	224	S/2000/65	193	S/3520/60	239	S/4880/60	244	S/6480/53	252
S/0280/60	224	S/2040/53	234	S/3520/63	239	S/4880/63	244	S/6520/60	253
S/0320/63	225	S/2040/60	234	S/3560/53	239	S/4880/65	244	S/6560/53	253
S/0320/65	225	S/2040/62	234	S/3560/60	239	S/4880/68	244	S/6560/60	253
S/0330/60	225	S/2040/65	234	S/3560/63	239	S/4920/53	194	S/6600/53	253
S/0330/65	225	S/2046/50	233	S/3561/53	239	S/4920/60	194	S/6600/60	253
S/0360/60	225	S/2046/60	233	S/3640/46	239	S/4920/63	194	S/6600/63	253
S/0360/63	225	S/2052/50	233	S/3640/48	239	S/4920/65	194	S/6600/65	253
S/0365/60	224	S/2080/53	233	S/3720/53	240	S/4920/68	194	S/6600/70	253
S/0365/63	224	S/2080/60	233	S/3720/60	240	S/4920/70	194	S/6640/53	252
S/0370/63	225	S/2080/65	233	S/3720/65	240	S/4930/05	245	S/6640/60	252
S/0380/48	225	S/2120/50	233	S/3760/53	193	S/4930/15	245	S/6640/63	252
S/0420/99	225	S/2120/53	233	S/3760/60	193	S/4930/17	245	S/6640/65	252
S/0423/PB05	225	S/2120/60	233	S/3760/65	193	S/4930/21	245	S/6640/68	252
S/0441/46	226	S/2120/70	233	S/3760/70	193	S/4930/25	245	S/6650/53	253
S/0520/48	226	S/2160/53	234	S/3770/53	239	S/4930/27	245	S/6650/60	253
S/0560/48	226	S/2200/60	234	S/3780/44	127	S/4940/17	245	S/6650/65	253
S/0560/70	226	S/2272/50	234	S/3800/53	240	S/4945/31	246	S/6660/60	252
S/0600/53	226	S/2320/48	234	S/3800/63	240	S/4945/PB15	246	S/6840/53	253
S/0680/53	227	S/2360/48	235	S/3840/53	242	S/4945/PB21	246	S/6840/60	253
S/0691/53	227	S/2360/53	235	S/3880/50	241	S/4950/PB15	245	S/6840/63	253
S/0691/60	227	S/2380/48	234	S/3880/53	241	S/4950/PB17	245	S/6850/53	253
S/0691/70	227	S/2380/53	234	S/3920/50	240	S/5040/21	247	S/6850/60	253
S/0692/53	227	S/2440/53	193	S/3920/53	240	S/5041/21	247	S/6920/53	280
S/0692/60	227	S/2440/60	193	S/3920/60	240	S/5042/15	247	S/6922/53	280
S/0692/70	227	S/2441/53	235	S/3920/70	240	S/5081/53	247	S/7000/63	254
S/0693/53	227	S/2480/48	235	S/4000/60	241	S/5100/48	247	S/7010/60	194
S/0693/60	227	S/2560/45	235	S/4040/53	241	S/5120/48	248	S/7010/63	194
S/0693/70	227	S/2560/46	235	S/4040/70	241	S/5120/50	248	S/7040/50	254
S/0694/53	227	S/2560/48	235	S/4080/53	241	S/5120/53	248	S/7040/53	254
S/0694/60	227	S/2600/53	235	S/4082/53	241	S/5130/48	248	S/7040/60	254
S/0694/70	227	S/2640/53	235	S/4086/50	241	S/5130/53	248	S/7040/65	254
S/0695/53	227	S/2640/63	235	S/4100/53	241	S/5161/08	248	S/7120/53	254
S/0695/60	227	S/2660/48	236	S/4110/48	241	S/5200/53	240	S/7160/63	255
S/0695/70	227	S/2720/60	236	S/4120/53	242	S/5240/53	194	S/7200/60	255
S/0696/53	227	S/2720/62	236	S/4120/60	242	S/5240/60	194	S/7200/63	255
S/0696/60	227	S/2720/65	236	S/4160/53	242	S/5240/62	194	S/7240/53	254
S/0696/70	227	S/2760/53	236	S/4160/60	242	S/5250/53	248	S/7240/60	254
S/0697/48	227	S/2760/60	236	S/4200/60	242	S/5250/60	248	S/7240/63	254
S/0697/50	227	S/2760/65	236	S/4200/63	242	S/5250/65	248	S/7240/65	254
S/0697/53	227	S/2840/62	236	S/4200/65	242	S/5280/53	248	S/7240/70	254
S/0698/53	227	S/2840/70	236	S/4240/53	194	S/5360/60	248	S/7250/53	254
S/0698/60	227	S/2880/53	236	S/4240/60	194	S/5360/63	248	S/7250/63	254
S/0698/70	227	S/2880/60	236	S/4240/63	194	S/5440/50	249	S/7320/48	255
S/0720/53	227	S/2880/62	236	S/4240/65	194	S/5440/53	249	S/7390/48	255
S/0720/60	227	S/2880/65	236	S/4246/50	242	S/5480/48	249	S/7400/53	194
S/0730/53	228	S/2880/70	236	S/4280/53	242	S/5480/50	249	S/7400/63	194
S/0761/53	228	S/2920/53	236	S/4360/53	244	S/5520/53	249	S/7435/53	63
S/0761/60	228	S/2920/60	236	S/4360/60	244	S/5520/60	249	S/7880/60	270
S/0761/65	228	S/2920/62	236	S/4360/62	244	S/5520/63	249	S/7920/60	270
S/0780/53	227	S/2920/65	236	S/4400/53	193	S/5560/53	249	S/7960/53	270
S/0780/60	227	S/3000/60	237	S/4400/60	193	S/5560/63	249	S/7960/60	270
S/0790/53	227	S/3000/63	237	S/4400/68	193	S/5600/53	249	S/8000/50	270
S/0820/48	228	S/3040/53	237	S/4440/53	243	S/5600/60	249	S/8000/53	270
S/0844/PB08	228	S/3040/60	237	S/4440/60	243	S/5600/62	249	S/8000/60	270
S/0880/90	229	S/3045/50	237	S/4440/65	243	S/5640/53	249	S/8040/60	270
S/0960/45	229	S/3100/63	238	S/4450/53	243	S/5640/62	249	S/8130/53	270
S/1010/45	229	S/3105/63	238	S/4450/60	243	S/5680/48	250	S/8144/48	270
S/1120/46	229	S/3105/70	238	S/4450/65	243	S/5760/50	250	S/8280/53	271
S/1200/44	229	S/3120/53	238	S/4450/68	243	S/5760/53	250	S/8350/PB17	274
S/1240/46	230	S/3120/60	238	S/4460/53	243	S/5760/60	250	S/8400/53	271
S/1240/48	230	S/3120/63	238	S/4480/53	243	S/5760/65	250	S/8402/53	271
S/1240/53	230	S/3120/65	238	S/4480/60	243	S/5761/53	250	S/8480/15	272
S/1280/46	230	S/3120/70	238	S/4480/65	243	S/5800/53	250	S/8480/17	272
S/1280/48	230	S/3160/53	193	S/4520/53	193	S/5880/53	250	S/8520/53	272
S/1280/50	230	S/3160/60	193	S/4520/60	193	S/5960/50	251	S/8522/50	272
S/1280/53	230	S/3160/63	193	S/4520/63	193	S/5960/53	251	S/8522/68	272
S/1280/68	230	S/3160/65	193	S/4520/65	193	S/5965/53	250	S/8560/53	272
S/1320/46	231	S/3160/68	193	S/4520/70	193	S/5966/50	250	S/8560/60	272
S/1360/46	231	S/3160/70	193	S/4690/53	244	S/6040/53	251	S/8560/63	272
S/1360/48	231	S/3165/53	237	S/4720/53	244	S/6041/53	251	S/8560/65	272
S/1400/46	231	S/3200/50	238	S/4800/60	245	S/6080/53	251	S/8600/53	194
S/1400/48	231	S/3240/53	238	S/4800/63	245	S/6100/53	251	S/8600/60	194
S/1450/53	231	S/3280/53	239	S/4800/65	245	S/6120/60	251	S/8600/63	194
S/1560/53	232	S/3280/60	239	S/4800/68	245	S/6140/53	251	S/8600/65	194

code	page	code	page	code	page	code	page	code	page
S/8600/68	194	SPCALMIX4100	264	SPMIXSTD5A500	264	SPPLCU22X	73	SPPLNA22T	232
S/8600/70	194	SPCALMIX4500	264	SPPLAG22T	229	SPPLCU22Y	73	SPPLNA22X	232
S/8630/46	272	SPCALMIX7100	264	SPPLAG22X	229	SPPLCU23X	73	SPPLNA22Y	232
S/8640/53	273	SPCALMIX7500	264	SPPLAG22Y	229	SPPLCU23Y	73	SPPLNA23X	232
S/8640/69	273	SPCALMIX8100	264	SPPLAG23X	229	SPPLDY22X	95	SPPLNA23Y	232
S/8640/70	273	SPCALMIX8500	264	SPPLAG23Y	229	SPPLDY22Y	95	SPPLNB92X	174
S/8641/53	273	SPCLAG22Y	229	SPPLAL12X	12	SPPLER22X	95	SPPLNB92Y	174
S/8641/68	273	SPCLAL22Y	12	SPPLAL13X	12	SPPLER22Y	95	SPPLNB93X	174
S/8660/50	273	SPCLAS22Y	34	SPPLAL22T	12	SPPLER23X	95	SPPLNB93Y	174
S/8660/73	273	SPCLAU11Y	110	SPPLAL22X	12	SPPLER23Y	95	SPPLND22X	171
S/8680/53	273	SPCLBA22Y	35	SPPLAL22Y	12	SPPLEU22X	102	SPPLND22Y	171
S/8720/48	273	SPCLBE22Y	39	SPPLAL23X	12	SPPLEU22Y	102	SPPLNI22T	172
S/8850/48	273	SPCLBI21AY	40	SPPLAL23Y	12	SPPLFE12X	131	SPPLNI22X	172
S/8850/53	273	SPCLBLKH2O	262	SPPLAS12X	34	SPPLFE13X	131	SPPLNI22Y	172
S/8920/60	274	SPCLBLKHCL	262	SPPLAS22T	34	SPPLFE22T	131	SPPLNI23X	172
S/8920/63	274	SPCLBLKHNO3	262	SPPLAS22X	34	SPPLFE22X	131	SPPLNI23Y	172
S/8970/60	274	SPCLCA22Y	55	SPPLAS22Y	34	SPPLFE22Y	131	SPPLP92T	198
S/8990/53	274	SPCLCAL1	264	SPPLAS23X	34	SPPLFE23X	131	SPPLP92Y	198
S/9120/PB17	276	SPCLCAL2	264	SPPLAS23Y	34	SPPLFE23Y	131	SPPLP93X	198
S/9160/26	276	SPCLCAL3	264	SPPLAU32X	110	SPPLGA22X	108	SPPLP93Y	198
S/9160/PB15	276	SPCLCD22Y	53	SPPLAU32Y	110	SPPLGA22Y	108	SPPLPB22T	143
S/9160/PB17	276	SPCLCO22Y	71	SPPLB92T	41	SPPLGD22X	107	SPPLPB22X	143
S/9200/PB08	276	SPCLCR22Y	68	SPPLB92X	41	SPPLGD22Y	107	SPPLPB22Y	143
S/9200/PB17	276	SPPLCU22Y	73	SPPLB92Y	41	SPPLGD23X	108	SPPLPB23X	143
S/9220/PB08	275	SPCLFE22Y	131	SPPLB93X	42	SPPLGD23Y	108	SPPLPB23Y	143
S/9222/PB17	275	SPCLGE91AY	108	SPPLB93Y	42	SPPLGE92X	108	SPPLPD32X	181
S/9225/07	9	SPCLHG21AY	158	SPPLBA12X	35	SPPLGE92Y	108	SPPLPD32Y	181
S/9225/08	9	SPCLIN21AY	129	SPPLBA22T	35	SPPLHF12X	111	SPPLPR22X	218
S/9225/15	9	SPCLK22Y	202	SPPLBA22X	35	SPPLHF12Y	111	SPPLPR22Y	218
S/9231/PB07	10	SPCLMG22Y	151	SPPLBA22Y	35	SPPLHF13X	111	SPPLPT32X	200
S/9231/PB08	10	SPCLMN22Y	155	SPPLBA23X	35	SPPLHF13Y	111	SPPLPT32Y	200
S/9231/PB15	10	SPCLMO92Y	169	SPPLBA23Y	35	SPPLHG21AX	158	SPPLRB22X	223
S/9231/PB17	10	SPCLMS1	264	SPPLBE22T	39	SPPLHG21AY	158	SPPLRB22Y	223
S/9232/PB08	9	SPCLMS2	264	SPPLBE22X	39	SPPLHG21X	158	SPPLRB23X	223
S/9232/PB15	9	SPCLMS2A	264	SPPLBE22Y	39	SPPLHG42T	157	SPPLRB23Y	223
S/9240/25	276	SPCLMS2AN	264	SPPLBE23X	39	SPPLHG42X	157	SPPLRE92X	223
S/9240/26	276	SPCLMS2N	264	SPPLBE23Y	39	SPPLHG42Y	157	SPPLRE92Y	223
S/9240/PB15	276	SPCLMS3	264	SPPLBI42X	40	SPPLHG43X	158	SPPLRH32X	223
S/9240/PB17	276	SPCLMS4	264	SPPLBI42Y	40	SPPLHG43Y	158	SPPLRH32Y	223
S/9240/PC17	276	SPCLMS5	264	SPPLBLKHCL	262	SPPLHO22X	116	SPPLRU32X	224
S/9360/PB17	276	SPCLMSSET	264	SPPLBLKHNO3	262	SPPLHO22Y	116	SPPLRU32Y	224
S/9440/PB08	276	SPCLMSSETN	264	SPPLC92X	59	SPPLIN22X	129	SPPLS92T	261
S/9500/33	276	SPCLNA22Y	233	SPPLC92Y	59	SPPLIN22Y	129	SPPLS92X	261
S/9500/PB17	276	SPCLNI22Y	172	SPPLCA12X	55	SPPLIR32X	131	SPPLS92Y	261
S/9560/PB08	278	SPCLPB22Y	143	SPPLCA13X	55	SPPLIR32Y	131	SPPLS93X	261
SPASBR92X	44	SPCLRH11AY	223	SPPLCA22T	55	SPPLK12X	202	SPPLS93Y	261
SPASBR92Y	44	SPCLSB72Y	32	SPPLCA22Y	55	SPPLK13X	202	SPPLSB53X	33
SPASBRO392Y	42	SPCLSC21AY	225	SPPLCA23T	55	SPPLK22T	202	SPPLSB72T	32
SPASCL91X	64	SPCLSE22Y	226	SPPLCA23X	55	SPPLK22X	202	SPPLSB72X	32
SPASCL91Y	64	SPCLSN22Y	262	SPPLCA23Y	55	SPPLK22Y	202	SPPLSB72Y	32
SPASCL92X	64	SPCLTB21AY	262	SPPLCD12X	53	SPPLK23X	202	SPPLSB73X	33
SPASCL92Y	64	SPCLTH22Y	262	SPPLCD22T	53	SPPLK23Y	202	SPPLSB73Y	33
SPASCLO292X	64	SPCLTI92Y	262	SPPLCD22X	53	SPPLLA22X	142	SPPLSC22T	225
SPASCLO292Y	64	SPCLTL22Y	262	SPPLCD22Y	53	SPPLLA22Y	142	SPPLSC22X	225
SPASCLO392X	63	SPCLTUNE1	264	SPPLCD23X	53	SPPLLA23X	142	SPPLSC22Y	225
SPASCLO392Y	63	SPCLU22Y	262	SPPLCD23Y	53	SPPLLA23Y	142	SPPLSC23X	225
SPASF91AX	104	SPCLV22Y	262	SPPLCE22X	61	SPPLLI12X	147	SPPLSC23Y	225
SPASF91AY	104	SPCLY21AY	262	SPPLCE22Y	61	SPPLLI13X	147	SPPLSE22T	226
SPASF91X	104	SPCLZN22Y	263	SPPLCE23X	61	SPPLLI22X	147	SPPLSE22X	226
SPASF91Y	104	SPICPKIT1	264	SPPLCE23Y	61	SPPLLI22Y	147	SPPLSE22Y	226
SPASF92X	104	SPICPKIT2	264	SPPLCO12X	71	SPPLLI23X	147	SPPLSE23X	226
SPASF92Y	104	SPICPKIT3	264	SPPLCO22T	71	SPPLLI23Y	147	SPPLSE23Y	226
SPASNH3N92Y	20	SPICPKIT4	264	SPPLCO22X	71	SPPLLU22X	150	SPPLSI92T	228
SPASNO292X	174	SPMIXSTD1100	264	SPPLCO22Y	71	SPPLLU22Y	150	SPPLSI92X	228
SPASNO292Y	174	SPMIXSTD1500	264	SPPLCO23X	71	SPPLMG12X	150	SPPLSI92Y	228
SPASNO2N92X	174	SPMIXSTD1A100	264	SPPLCO23Y	71	SPPLMG13X	150	SPPLSI93X	228
SPASNO2N92Y	174	SPMIXSTD1A500	264	SPPLCR12X	68	SPPLMG22T	150	SPPLSI93Y	228
SPASNO392X	174	SPMIXSTD2100	264	SPPLCR13X	68	SPPLMG22Y	150	SPPLSI9A3X	228
SPASNO392Y	174	SPMIXSTD2500	264	SPPLCR22T	68	SPPLMG23X	150	SPPLSM22X	224
SPASNO3N92Y	174	SPMIXSTD2A100	264	SPPLCR22X	68	SPPLMG23Y	150	SPPLSM22Y	224
SPASPO492X	198	SPMIXSTD2A500	264	SPPLCR22Y	68	SPPLMN22T	155	SPPLSN22X	262
SPASPO492Y	198	SPMIXSTD3100	264	SPPLCR23X	68	SPPLMN22X	155	SPPLSN23X	262
SPASPO4P92X	198	SPMIXSTD3500	264	SPPLCR23Y	68	SPPLMN22Y	155	SPPLSN52T	262
SPASPO4P92Y	198	SPMIXSTD3A100	264	SPPLCR92X	68	SPPLMN23X	155	SPPLSN52X	262
SPASPO492X	273	SPMIXSTD3A500	264	SPPLCR93X	68	SPPLMN23Y	155	SPPLSN52Y	262
SPASPO492Y	273	SPMIXSTD4100	264	SPPLCS22X	62	SPPLMO92T	169	SPPLSN53X	262
SPASPO4S92X	273	SPMIXSTD4500	264	SPPLCS22Y	62	SPPLMO92X	169	SPPLSN53Y	262
SPASPO4S92Y	273	SPMIXSTD4A100	264	SPPLCS23X	62	SPPLMO92Y	169	SPPLSR12X	261
SPCALMIX10100	264	SPMIXSTD4A500	264	SPPLCS23Y	62	SPPLMO93X	169	SPPLSR13X	261
SPCALMIX10500	264	SPMIXSTD5100	264	SPPLCU12X	73	SPPLMO93Y	169	SPPLSR22T	261
SPCALMIX3100	264	SPMIXSTD5500	264	SPPLCU13X	73	SPPLNA12X	232	SPPLSR22X	261
SPCALMIX3500	264	SPMIXSTD5A100	264	SPPLCU22T	73	SPPLNA13X	232	SPPLSR22Y	261

code	page	code	page	code	page	code	page	code	page
SPPLSR23X	261	T/0478/46	282	T/1900/53	290	T/3600/27	296	X/0200/25	305
SPPLSR23Y	261	T/0479/46	282	T/1950/PB08	290	T/3600/PB17	296	X/0200/27	305
SPPLTA92X	261	T/0479/48	282	T/2000/PB08	290	T/3601/15	296	X/0200/DH25	305
SPPLTA92Y	261	T/0480/05	282	T/2060/46	127	T/3601/17	296	X/0200/PB17	305
SPPLTA93X	261	T/0480/07	282	T/2150/17	292	T/3601/25	296	X/0250/15	304
SPPLTA93Y	261	T/0481/07	282	T/2150/25	292	T/3606/15	296	X/0250/17	304
SPPLTB22X	262	T/0486/07	282	T/2150/PB15	292	T/3606/17	296	X/0250/21	304
SPPLTB22Y	262	T/0490/48	282	T/2150/PB17	292	T/3606/21	296	X/0250/25	304
SPPLTB23X	262	T/0505/44	282	T/2200/17	292	T/3606/27SS	296	X/0250/27	304
SPPLTB23Y	262	T/0550/17	283	T/2200/21	292	T/3608/15	296	X/0250/PB17	304
SPPLTE22X	262	T/0550/25	283	T/2200/25	292	T/3608/17	296	X/0255/17	304
SPPLTE22Y	262	T/0550/PB17	283	T/2200/27	292	T/3622/46	297	X/0300/08	304
SPPLTE32X	262	T/0600/17	283	T/2200/PB17	292	T/3630/44	297	X/0300/17	304
SPPLTE53X	262	T/0600/21	283	T/2250/17	292	T/3650/53	297	X/0300/27	304
SPPLTH22X	262	T/0600/25	283	T/2250/25	292	T/3652/48	297	X/0350/08	304
SPPLTH22Y	262	T/0600/PB17	283	T/2250/PB17	292	T/3710/48	297	X/0400/08	304
SPPLTI52X	262	T/0601/17	283	T/2300/15	291	T/3710/50	297	Y/0200/48	305
SPPLTI53X	262	T/0601/PB17	283	T/2300/17	291	T/3710/60	297	Z/0160/53	307
SPPLTI92T	262	T/0605/PB17	283	T/2300/21	291	T/3720/48	297	Z/0250/53	307
SPPLTI92X	262	T/0611/46	283	T/2300/25	291	T/3740/53	297	Z/0250/61	307
SPPLTI92Y	262	T/0620/48	284	T/2300/27	291	T/3751/08	298	Z/0300/53	306
SPPLTI93X	262	T/0621/46	283	T/2300/DH25	291	T/3751/17	298	Z/0300/60	306
SPPLTI93Y	262	T/0700/08	284	T/2300/PB15	291	T/3757/08	298	Z/0300/70	306
SPPLTL22T	262	T/0700/17	284	T/2300/PB17	291	T/3760/48	298	Z/0400/53	307
SPPLTL22X	262	T/0700/21	284	T/2301/17	291	T/3770/46	298	Z/0450/53	307
SPPLTL22Y	262	T/0700/25	284	T/2302/PB15	291	T/3902/48	299	Z/0450/60	307
SPPLTL23X	262	T/0700/27	284	T/2302/PB17	291	T/3940/48	299	Z/0500/53	306
SPPLTL23Y	262	T/0700/PB17	284	T/2306/15	290	T/4050/15	299	Z/0500/60	306
SPPLTM22X	262	T/0701/15	284	T/2306/17	290	T/4200/17	299	Z/0550/53	307
SPPLTM22Y	262	T/0701/17	284	T/2306/27MS	290	T/4200/25	299	Z/0650/53	307
SPPLU22X	262	T/0701/21	284	T/2306/27SS	290	T/4203/60	299	Z/0700/50	307
SPPLU22Y	262	T/0701/25	284	T/2310/PB17	291	T/4205/60	299	Z/0700/53	307
SPPLU23X	262	T/0701/PB15	284	T/2323/15	291	T/4206/60	299	Z/0700/60	307
SPPLU23Y	262	T/0701/PB17	284	T/2323/17	291	T/4210/48	299	Z/0750/48	307
SPPLV12X	262	T/0702/PB15	284	T/2500/48	292	U/0005/05	299	Z/0800/53	307
SPPLV22X	262	T/0702/PB17	284	T/2500/53	292	U/0020/PB05	127	Z/0850/53	308
SPPLV22Y	262	T/0706/2SSS	284	T/2550/50	292	U/0020/PB08	127	Z/0850/60	308
SPPLV33X	262	T/0706/27SS	284	T/2590/48	292	U/0020/PB17	127	Z/0850/68	308
SPPLV43X	262	T/0706/PB15	284	T/2650/53	292	U/0025/PB05	107	Z/0870/53	308
SPPLV43Y	262	T/0706/PB17	284	T/2660/46	292	U/0025/PB08	107	Z/0870/60	308
SPPLW22X	262	T/0709/PB17	284	T/2750/79	293	U/0030/46	299	Z/1100/48	308
SPPLW23X	262	T/0850/08	285	T/2950/50	293	U/0450/53	300	Z/1145/53	308
SPPLW92X	298	T/0931/46	285	T/2950/53	293	U/0450/60	300	Z/1150/50	308
SPPLW92Y	262	T/0935/44	285	T/2950/60	293	U/0450/63	300	Z/1150/53	308
SPPLW93X	262	T/0940/04	285	T/3000/50	293	U/0500/53	300	Z/1300/53	194
SPPLW93Y	262	T/0940/05	285	T/3000/53	293	U/0500/63	300	Z/1300/60	194
SPPLY22T	262	T/0960/44	285	T/3000/60	293	U/0500/65	300	Z/1350/53	308
SPPLY22X	262	T/0960/45	285	T/3050/25	293	U/0500/70	300	Z/1350/60	308
SPPLY22Y	262	T/0977/53	286	T/3050/PB17	293	U/0655/46	300	Z/1350/70	308
SPPLY23X	262	T/0978/50	285	T/3100/08	293	V/0011/PB05	300	Z/1400/53	309
SPPLY23Y	262	T/0980/46	286	T/3100/17	293	V/0100/48	301	Z/1550/53	309
SPPLYB22X	262	T/1000/PB05	286	T/3100/21	293	V/0100/53	301	Z/1550/60	309
SPPLYB22Y	262	T/1000/PB07	286	T/3100/25	293	V/0100/70	301	Z/1550/65	309
SPPLZN12X	263	T/1000/PB17	286	T/3100/PB17	293	V/0105/48	301	Z/1600/70	309
SPPLZN13X	263	T/1050/PB08	286	T/3101/08	293	V/0200/53	301	Z/1700/53	309
SPPLZN22T	262	T/1450/48	286	T/3101/PB17	293	W/0100/21	303	Z/1850/50	310
SPPLZN22Y	262	T/1470/44	127	T/3150/08	294	W/0100/24	303	Z/1900/53	310
SPPLZN23X	263	T/1470L/08	286	T/3150/17	294	W/0100/25	303		
SPPLZN23Y	263	T/1480/44	127	T/3150/25	294	W/0100/27	303		
SPPLZR22T	263	T/1480/46	127	T/3160/08	294	W/0106/15	302		
SPPLZR22X	263	T/1480L/08	287	T/3160/17	294	W/0106/17	302		
SPPLZR22Y	263	T/1500/43	287	T/3200/08	294	W/0106/PB17	302		
SPPLZR23X	263	T/1560/48	288	T/3200/17	294	W/0107/17	303		
SPPLZR23Y	263	T/1560/53	288	T/3200/PB17	294	W/0108/17	303		
SPPLZR32X	263	T/1600/48	288	T/3201/15	294	W/0110/PB15	302		
SPPLZR33X	263	T/1600/53	288	T/3201/25	294	W/0110/PB17	302		
T/0050/60	278	T/1640/50	288	T/3201/PB17	294	W/0112/15	302		
T/0050/62	278	T/1645/48	288	T/3203/07	294	W/0112/17	302		
T/0050/68	278	T/1650/48	288	T/3256/PB05	295	W/0115/08	9		
T/0100/53	278	T/1652/50	288	T/3257/PB05	295	W/0115/15	9		
T/0150/53	278	T/1652/53	288	T/3258/04	295	W/0150/53	303		
T/0200/53	280	T/1652/60	288	T/3258/PB05	295	W/0200/50	303		
T/0200/60	280	T/1654/48	288	T/3270/08	295	W/0255/48	303		
T/0210/53	280	T/1654/50	288	T/3270/17	295	W/0320/53	304		
T/0210/60	280	T/1654/53	288	T/3296/PB05	295	W/0350/48	304		
T/0210/65	280	T/1654/60	288	T/3300/48	295	W/0350/53	304		
T/0250/53	194	T/1661/48	289	T/3350/48	295	X/0100/17	305		
T/0250/60	194	T/1661/53	289	T/3510/10	296	X/0100/25	305		
T/0300/53	280	T/1665/PB05	289	T/3520/50	67	X/0100/27	305		
T/0420/08	281	T/1670/48	289	T/3600/17	296	X/0100/PB17	305		
T/0470/45	128	T/1800/PB15	290	T/3600/21	296	X/0200/17	305		
T/0476/46	282	T/1840/48	290	T/3600/25	296	X/0200/21	305		



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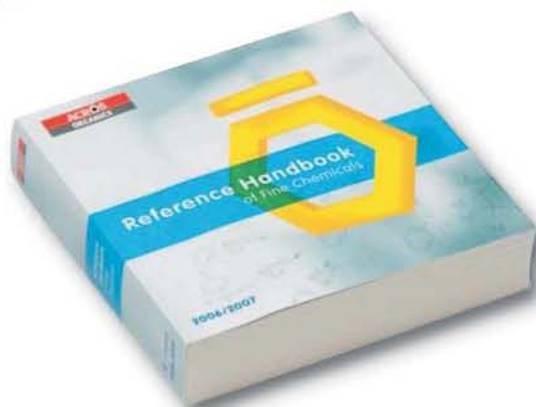
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