



FIRST QUALITY AND EXPERTISE
IN LABORATORY CHEMICALS SINCE 1814

Research Chemicals Catalog 2011/2012



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Honeywell Research Chemicals

Honeywell Burdick & Jackson Research Chemicals business is a leading producer of high purity solvents and research chemicals. These products combine the strengths of three brands:

- Honeywell as an international technology company with the technical know how of its more than 120 000 employees
- Burdick & Jackson as a leading producer of high-purity solvents and reagents with decades of experience in the United States.
- The former Riedel-de Haën AG in Seelze (close to Hanover, Germany) as a producer of the Honeywell B&J products in Europe.

Parts of Honeywells competencies lie in the technical capabilities in the areas of organic and inorganic chemistry, ultra high-purity production, flexible manufacturing, global logistics

and innovative applications support. Honeywell specializes in consistently delivering very high batch-to-batch product quality.

The Burdick & Jackson brand products show exceptional uniformity, based on the implementation of highly developed purification technology.

The former Riedel-de Haën AG located in Seelze stands for almost two hundred years of chemical expertise and innovation.

This product catalog details information on Honeywell Burdick & Jackson solvents, salts, acids and bases. The catalog alphabetically lists the products, complete with ordering details and important storage, handling and safety information, as well as product specifications.

All of the products in this catalog are manufactured in Seelze, Germany.

Quality and Environmental Excellence

Honeywell's approach to high purity products, reliability and environmental considerations is reflected by our ISO 9001, ISO 14001 and ISO TS 16949 certifications. Consistently meeting the requirements demanded by these global standards for quality management and environmental management demonstrates an uncompromising commitment to excellence in both areas. In addition, safety management is a vital part of Honeywell's integrated management system, and covers all safety processes.

Honeywell, including all its divisions and brands, is committed to Responsible Care®, the global initiative launched by the American Chemistry Council in 1988 to respond to public concerns about the manufacture and use of chemicals. Responsible Care® requires companies to improve performance in response to public concerns about the effects of chemicals on health, safety and the environment. One of the mandates of the program is that member companies must seek to involve the community in Responsible Care®, so public concerns can be expressed and addressed. The aim is to achieve continuous progress toward the vision of responsible chemical manufacturing with no accidents, injuries, or harm to the environment.

Health, Safety and Product Stewardship

As a responsible manufacturer of chemical products, Honeywell takes safety very seriously. "Safety first" is the basis for operations at every Honeywell manufacturing site. Stringent systems and procedures are in place and subject to continual review. Across its global operations, Honeywell also operates a product stewardship program. This involves the corporation in taking responsibility for products throughout their entire life cycle.

Packaging

Honeywell continuously works on developing new packaging solutions to meet the demanding requirements of our customers.

The packaging solution team of the former Riedel-de Haën AG has developed technologies which are today's industrial standard. Delivering the highest quality and consistency, Honeywell offers a broad range of packaging techniques and options to maintain the premium quality of its solvent and reagent products during delivery and storage.

Honeywell Inc.

Honeywell's Burdick & Jackson Research Chemicals are part of Specialty Materials Business, a world leader in high performance specialty materials such as fluorocarbons, specialty films, specialty gases, catalysts, advanced and customized research chemicals and intermediates, and specialty and fine chemicals. Specialty Materials is also a top provider of materials and solutions to the electronics industry as well as of technologies and products for the petrochemical industry.

Specialty Materials serves many fast-growing markets, including automotive, healthcare, agricultural, electronic and food packaging, polymers/plastics, personal care, air conditioning and refrigeration, security coding, lubricants, paper and packaging, semiconductor, industrial and consumer power tools, paints and coatings, commercial and residential carpet, and body and vehicle protection.

Honeywell International is a diversified technology and manufacturing company based in Morristown, New Jersey, USA. The company serves customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; turbochargers; specialty chemicals; fibers; and electronic and advanced materials.



Explanations

Analytical data

The purity of analytical grade chemicals and specialties from Honeywell is indicated in the specifications by the data given in the “guarantee analyses” section, which show minimum (“min.”) and maximum (“max.”) contents. Grade analysis (contents without the addition of “min.” or “max.”) show the respective averages from the analyses of individual batches.

Pharmacopoeia qualities

When the chemical designation is followed by the name of the pharmacopoeia, the article meets the requirements of this pharmacopoeia. If no edition is quoted, the current edition of the pharmacopoeia should be taken as valid for the product in question. These articles often contain amounts of impurities smaller than those permitted by the relevant pharmacopoeia; typical values for the impurities are then given in the specifica-

tions. The purity test carried out by Honeywell does not absolve the customer or processor of the responsibility to observe the regulations laid down in the relevant pharmacopoeia laws. The guidelines usually given in the pharmacopoeia relating to preparation, sterilization and hydrogen testing must be observed, particularly in the manufacture of solutions for injection and infusion.

Labels

The authoritative data for the quality of a product are the specifications in the quality certificates.

Guarantee

The quality of our products is guaranteed under our General Terms and Conditions of Sale.

Abbreviations, Signs and Transport Regulation



Packaging

AL	aluminum package
BA	carboy
BL	metal container
BLT	metal drum wide mouth
F	metal barrel
FIBC	IBC flexible
FL	glass bottle
FP	plastic drum
FT	fiber drum
IBC	intermediate bulk container
K	cardboard box
KA	metal can
KIBC	combined IBC
KWG	tank car
MF	metal drum multi-trip (reusable)
MIBC	metal IBC
MKA	metal can multi-trip (reusable)
MPK	plastic drum multi-trip (reusable)
PE	plastic bottle and plastic bag
PK	plastic drum
PT	plastic drum/pail
S	bag (plastic, paper, jute)
STP	steel drum with PE+HD liner
TAZG	tank truck



Physical units

Å	angström
D	density
E0	normal potential
g	gram
kg	kilogram
l	liter
M	molar mass
m	meter

Physical units continued

mm	millimeter
mg	milligram
ml	milliliter
mol	mole (amount of substance)
n	refractive index
nm	nanometer
[α] _D ²⁰	specific rotation
ϵ	molar absorptivity
η	dynamic viscosity
μm	micrometer

Abbreviations

AAS	Atomic Absorption Spectroscopy
ACS	American Chemical Society
ASTM	American Society for Testing and Materials
CAS	Chemical Abstract Service
C.I.No.	Color Index Number
COD	Chemical Oxygen Demand
DCP	Direct Current Plasma
ECD	Electron Capture Detector
EMS	Emission Spectroscopy
EINECS	European Inventory of Existing Commercial Chemical Substances
FIA	Fluorescent Indicator Analysis
FID	Flame Ionization Detector
GC	Gas Chromatography
GefStoffV	Gefahrstoffverordnung (German regulations of dangerous substances)
HPLC	High Pressure Liquid Chromatography
HPTLC	High Pressure Thin Layer Chromatography
ICP	Inductive Current Plasma
IR	Infrared
ISO	International Standards Organization
IUPAC	International Union of Pure and Applied Chemistry
MAK	Threshold limit value (German regulation)

McW	Microwave-coupled Plasma
NMR	Nuclear Magnetic Resonance
PCB	Polychlorinated Biphenyles
PSC	Preparative Layer Chromatography
SC	Column Chromatography
S. Nr.	Schultz number (Farbstofftabelle, 7th edition)
TLC	Thin Layer Chromatography
UV	Ultraviolet Spectroscopy
UV/VIS	Spectroscopy in UV-visible ranges

Transport regulations

The classification of hazardous goods listed below relates to the valid transport regulations at the time of printing this catalog. Goods are dispatched under the transport regulations applying on the day of dispatch. We assume no liability for the correctness of the information since the criteria are decided by the organizations referred to below.

GGVE/GGVs	Gefahrgutverordnung Eisenbahn/Straße. (Dangerous Goods Regulation Rail/Road). Apply to road and rail transport within the Federal Republic of Germany.
RID/ADR	Règlement concernant le transport international ferroviaire des marchandises dangereuses/Accord européen relatif au transport international des marchandises par route. (International Regulations concerning the carriage of dangerous goods by rail/European Agreement concerning the international carriage of dangerous goods by road).
IMDG-Code (GGVSee)	International Maritime Dangerous Goods Code. Applies to transport by deep sea.
IATA-DGR	Dangerous Goods Regulations of the International Air ICAO-TI Transport Association. Technical Instructions for the safe transport of dangerous goods by air of the International Civil Aviation Organization. Apply to transport in passenger aircraft (PAX) and cargo aircraft (CAO).
Class 1	Explosive substances and objects containing explosive substances
Class 2	Gases: compressed, liquefied or dissolved under pressure
Class 3	Flammable liquids
Class 4.1	Flammable solids
Class 4.2	Substances liable to spontaneous combustion
Class 4.3	Substances which give off flammable gases on contact with water
Class 5.1	Oxidizing substances
Class 6.1	Poisonous (Toxic) substances
Class 6.2	Repugnant substances and infectious substances
Class 7	Radioactive substances
Class 8	Corrosives
Class 9	Various dangerous substances and objects
EMS	Emergency Schedule. Emergency procedures for ships.
MFAG	Medical First Aid Guide for use in accidents involving dangerous goods

The flash points quoted in this catalog are in some cases values taken from the literature. Hazardous products are not delivered via postal services.





Pharmacopoeias

ACS	American Chemical Society
DAB	Deutsches Arzneibuch
DAC	Deutscher Arzneimittel-Codex
Erg.B.	Ergänzungsbuch zum Deutschen Arzneibuch
B.P.	British Pharmacopoeia
B.P.C.	British Pharmaceutical Codex
N.F.	The National Formulary
ÖAB	Österreichisches Arzneibuch
Ph. Belg.	Pharmacopée Belge
Ph. Eur.	European Pharmacopoeia
Ph. Franç.	Pharmacopée Française
Ph. Helv.	Pharmacopea Helvetica
Ph. Ned.	Pharm. Nederlandica
Ph. Nord.	Pharm. Nordica
U.S.P.	United States Pharmacopoeia

Symbols

®	registered trademark, indication that the TM is registered in one or more countries. (Names not marked are not necessarily nonproprietary names.)
[]	Chemical Abstracts Service registry numbers (CAS)
<	smaller than
>	larger than
Δ	diameter

Hazard Symbols



Explosion
e.g. Explosive materials



Flame
e.g. Inflammable liquids



Flame
e.g. Inflammable gases



Etching action
e.g. Skin-corrosive effect



Health hazard
e.g. Carcinogenicity



Skull and crossbones
e.g. Acute toxicity



Flame over set
e.g. Oxidizing solids



Exclamation point
e.g. Acute toxicity



Exclamation point
e.g. Skin-irritant



Environment
e.g. Waters-endangering





Hazard and Precautionary Statements

Special risks attached to dangerous substances (H-statements)

The hazard and precautionary statements are applied within the European Union.

H200	Unstable explosives
H201	Explosive; mass explosion hazard
H202	Explosive, severe projection hazard
H203	Explosive; fire, blast or projection hazard
H204	Fire or projection hazard
H205	May mass explode in fire
H220	Extremely flammable gas
H221	Flammable gas
H222	Extremely flammable aerosol
H223	Flammable aerosol
H224	Extremely flammable liquid and vapour
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H228	Flammable solid
H240	Heating may cause an explosion
H241	Heating may cause a fire or explosion
H242	Heating may cause a fire
H250	Catches fire spontaneously if exposed to air
H251	Self-heating; may catch fire
H252	Self-heating in large quantities; may catch fire
H260	In contact with water releases flammable gases which may ignite spontaneously
H261	In contact with water releases flammable gases
H270	May cause or intensify fire; oxidiser
H271	May cause fire or explosion; strong oxidiser
H272	May intensify fire; oxidiser
H280	Contains gas under pressure; may explode if heated
H281	Contains refrigerated gas; may cause cryogenic burns or injury
H290	May be corrosive to metals
H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H312	Nocif par contact cutané
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation

H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H341	Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H350	May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H351	Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H360	May damage fertility or the unborn child <state specific effect if known > <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H361	Suspected of damaging fertility or the unborn child <state specific effect if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H362	May cause harm to breast-fed children
H370	Causes damage to organs <or state all organs affected, if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H371	May cause damage to organs <or state all organs affected, if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H372	Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H373	May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life





EUH001	Explosive when dry
EUH006	Explosive with or without contact with air
EUH014	Reacts violently with water
EUH018	In use may form flammable/explosive vapour-air mixture
EUH019	May form explosive peroxides
EUH029	Contact with water liberates toxic gas
EUH031	Contact with acids liberates toxic gas
EUH032	Contact with acids liberates very toxic gas
EUH044	Risk of explosion if heated under confinement
EUH059	Hazardous to the ozone layer
EUH066	Repeated exposure may cause skin dryness or cracking
EUH070	Toxic by eye contact
EUH071	Corrosive to the respiratory tract
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children. Warning! Contains lead
EUH201A	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children. Warning! Contains lead
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children
EUH203	Contains chromium (VI). May produce an allergic reaction
EUH204	Contains isocyanates. May produce an allergic reaction
EUH205	Contains epoxy constituents. May produce an allergic reaction
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine)
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction
EUH209	Can become highly flammable in use. Can become flammable in use
EUH209A	Can become highly flammable in use. Can become flammable in use
EUH210	Safety data sheet available on request
EUH401	To avoid risks to human health and the environment, comply with the instructions for use

Precautionary statements (P-statements)

P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P103	Read label before use
P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking
P211	Do not spray on an open flame or other ignition source
P220	Keep/Store away from clothing/.../combustible materials
P221	Take any precaution to avoid mixing with combustibles...
P222	Do not allow contact with air
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire
P230	Keep wetted with...
P231	Handle under inert gas
P232	Protect from moisture
P233	Keep container tightly closed
P234	Keep only in original container
P235	Keep cool
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting/.../ equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P244	Keep reduction valves free from grease and oil
P250	Do not subject to grinding/shock/.../friction
P251	Pressurized container: Do not pierce or burn, even after use
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P262	Do not get in eyes, on skin, or on clothing
P263	Avoid contact during pregnancy/while nursing
P264	Wash ... thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P282	Wear cold insulating gloves/face shield/eye protection
P283	Wear fire/flame resistant/retardant clothing
P284	Wear respiratory protection
P285	In case of inadequate ventilation wear respiratory protection
P231+232	Handle under inert gas. Protect from moisture
P235+410	Keep cool. Protect from sunlight





P301	IF SWALLOWED
P302	IF ON SKIN
P303	IF ON SKIN (or hair)
P304	IF INHALED
P305	IF IN EYES
P306	IF ON CLOTHING
P307	IF exposed
P308	IF exposed or concerned
P309	IF exposed or if you feel unwell
P310	Immediately call a POISON CENTER or doctor/physician
P311	Call a POISON CENTER or doctor/physician
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P313	Get medical advice/attention
P314	Get medical advice/attention if you feel unwell
P315	Get immediate medical advice/attention
P320	Specific treatment is urgent (see ... on this label)
P321	Specific treatment (see ... on this label)
P322	Specific measures (see ... on this label)
P330	Rinse mouth
P331	Do NOT induce vomiting
P332	If skin irritation occurs
P333	If skin irritation or rash occurs
P334	Immerse in cool water/wrap in wet bandages
P335	Brush off loose particles from skin
P336	Thaw frosted parts with lukewarm water. Do not rub affected area
P337	If eye irritation persists
P338	Remove contact lenses, if present and easy to do. Continue rinsing
P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P342	If experiencing respiratory symptoms
P350	Gently wash with plenty of soap and water
P351	Rinse cautiously with water for several minutes
P352	Wash with plenty of soap and water
P353	Rinse skin with water/shower
P360	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes
P361	Remove/Take off immediately all contaminated clothing
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P370	In case of fire
P371	In case of major fire and large quantities
P372	Explosion risk in case of fire
P373	DO NOT fight fire when fire reaches explosives
P374	Fight fire with normal precautions from a reasonable distance
P375	Fight fire remotely due to the risk of explosion
P376	Stop leak if safe to do so

P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely
P378	Use ... for extinction
P380	Evacuate area
P381	Eliminate all ignition sources if safe to do so
P390	Absorb spillage to prevent material damage.
P391	Collect spillage
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P301+312	F SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P301+330+331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+334	IF ON SKIN: Immerse in cool water/wrap in wet bandages
P302+350	IF ON SKIN: Gently wash with plenty of soap and water
P302+352	IF ON SKIN: Wash with plenty of soap and water
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P304+341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+351338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P306+360	IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes
P307+311	IF exposed: Call a POISON CENTER or doctor/physician
P308+313	IF exposed or concerned: Get medical advice/attention
P309+311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician
P332+313	If skin irritation occurs: Get medical advice/attention
P333+313	If skin irritation or rash occurs: Get medical advice/attention
P335+334	Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
P337+313	If eye irritation persists: Get medical advice/attention
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P370+376	In case of fire: Stop leak if safe to do so
P370+378	In case of fire: Use ... for extinction
P370+380	In case of fire: Evacuate area
P370+380+375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion
P371+380375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion
P401	Store ...
P402	Store in a dry place
P403	Store in a well-ventilated place
P404	Store in a closed container





P405	Store locked up
P406	Store in corrosive resistant/... container with a resistant inner liner
P407	Maintain air gap between stacks/pallets
P410	Protect from sunlight
P411	Store at temperatures not exceeding ...°C/...°F
P412	Do not expose to temperatures exceeding 50°C/ 122°F
P413	Store bulk masses greater than ... kg/... lbs at temperatures not exceeding ...°C/...°F
P420	Store away from other materials
P422	Store contents under ...
P402+404	Store in a dry place. Store in a closed container
P403+233	Store in a well-ventilated place. Keep container tightly closed
P403+235	Store in a well-ventilated place. Keep cool
P410+403	Protect from sunlight. Store in a well-ventilated place
P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F
P411+235	Store at temperatures not exceeding ...°C/...°F. Keep cool
P501	Dispose of contents/container to ...

Purity in Packaging

As new applications emerge and packaging requirements change, Honeywell continuously focuses on developing packaging solutions, which meet the demanding requirements of our customers.

The packaging solution team of the former Riedel-de Haën AG has developed technologies which are today's industrial standard. Delivering the highest quality and consistency, Honeywell offers a broad range of packaging techniques and options to maintain the premium quality of its solvent and reagent products during delivery and storage. B&J Solvents are available in a variety of packaging options from lab size to manufacturing scale. In addition to bottles and drums, Honeywell offers innovative, returnable containers providing an environmentally responsible way to enhance lab safety and convenience.

Stainless Steel Pressure Dispense System Containers

Pressurizable Stainless Steel Dispense System containers, available in 1000L and 1400L, are the ultimate packages for maintaining high solvent purity.

Constructed of durable, inert materials, these closed systems incorporate quick-connect inert gas and solvent couplings for minimal solvent loss and air inclusion when connecting and disconnecting the container at operating pressure (<1,035 bar). Rigorously cleaned PTFE hoses and accessories ensure no contamination is introduced when delivering high-purity solvent from the container directly to an instrument or fume hood dispenser.

Since they are developed specifically for high-purity solvents, all internal quick-connect coupling surfaces consist of 316 stainless steel. These rugged, highly reliable connectors maintain solvent purity, minimize vapour emission and are pressure rated to 3 bar.





Stainless Steel Returnable Drums

Stainless Steel Returnable Drums, available in 45L and 200L, are designed as half open systems to avoid the risk of contamination during connecting and disconnecting. They also maintain the quality of the solvent better than plastic or aluminium. For easy handling all these containers are equipped with a dip tube, which reaches down to the very bottom of the container.

Honeywell offers a dispense head with different options for dispense, venting, gas and an over pressure valve.



Stainless Steel Returnable Drums

Metal Cans and Drums

30L can and 200L drum interiors have a solvent resistant coating that guards against rust particle formation and the introduction of contaminants commonly found in ordinary cans and drums. The 30L cans have a convenient handle and a splashless pour spout that is resealable to maintain solvent purity. The drums are equipped with 3/4" and 2" thread fittings.

Honeywell offers stainless steel dispense dip tube systems that are rigid constructed and adapted for venting and dispensing.



Metal Cans and Drums

Glass Bottles

Glass bottles, available in 1L and 2,5L, are the industry standard for high-purity solvents due to their amber colour and inert quality. They combine easy handling and minimal occupation of bench space and can be readily connected to the tubing assemblies of lab equipment like HPLC instruments and DNA synthesizers.

Other packaging options are available on demand.



Glass Bottles

Deutsche Version



Laborchemikalien Honeywell

Honeywells Burdick & Jackson ist ein führender Anbieter von Laborchemikalien und hochreinen Lösungsmitteln. Diese Produkte bündeln die Stärken von drei Marken:

- Honeywell als internationaler, weltumspannender Technologiekonzern, mit dem technologischen Know-How seiner über 120 000 Mitarbeiter.
- Burdick & Jackson als führender Hersteller hochreiner Lösungsmitteln mit jahrzehntelanger Tradition in den USA
- Die ehemalige Riedel-de Haën AG in Seelze (bei Hannover) als Hersteller der Honeywell B&J Produkte für Europa.

Zu Honeywells Stärken gehören ein breites Spektrum an technischen Fähigkeiten in den Bereichen komplexer organischer und anorganischer Chemie, Ultrahochreinheit sowie eine flexible Fertigung, globale Logistik und innovative Anwendungsunterstützung. Im Mittelpunkt steht die kontinuierliche Wahrung einer sehr hohen Chargenqualität.

Mit der Marke Burdick & Jackson produziert Honeywell durch die Einführung modernster Aufreinigungstechnologien und höchster Qualitätsstandards einzigartige Produkte. Die ehemalige Riedel-de Haën AG am Standort Seelze steht für fast zweihundertjährige chemische Expertise und Innovationskraft.

Diese drei Marken verbinden sich in Europa zu Honeywell Burdick & Jackson.

Der vorliegende Produktkatalog enthält ausführliche Informationen über das Honeywell Burdick & Jackson Angebot an Lösungsmitteln, Säuren, Laugen und Salzen. Der Katalog enthält in alphabetischer Reihenfolge unser Produktangebot einschließlich der Bestelldaten und Produktspezifikationen sowie wichtiger Lagerungs-, Handhabungs- und Sicherheitsinformationen. Alle der im Katalog aufgeführten Produkte werden in Seelze (Deutschland) hergestellt.

Top in Qualität und Umweltschutz

Honeywell hat sich der Hochreinheit seiner Produkte, ihrer Zuverlässigkeit sowie dem Schutz der Umwelt verschrieben. Dies wird nicht zuletzt durch die Zertifizierungen nach ISO 9001, ISO 14001 und der ISO TS 16949 bescheinigt. Die kontinuierliche Einhaltung der Anforderungen dieser globalen Standards für Qualitäts- und Umweltmanagement zeigt, dass Honeywell keine Kompromisse eingeht, wenn es darum geht, in beiden Bereichen eine erstklassige Leistung unter Beweis zu stellen. Darüber hinaus ist unser Sicherheitsmanagement ein wichtiger Bestandteil des integrierten Management-Systems, der sämtliche Sicherheitsprozesse umfasst.

Honeywell hat sich einschließlich der Gesamtheit seiner Unternehmenssparten und Marken dem Responsible Care®-Programm, einer 1988 vom amerikanischen Chemieverband (American Chemistry Council) gestarteten globalen Initiative, angeschlossen, welche sich mit Bedenken der Öffentlichkeit hinsichtlich der Herstellung und des Einsatzes von Chemikalien auseinandersetzt. Responsible Care® fordert Unternehmen zu einem verstärkten Engagement für Verbesserungen auf, um der Besorgnis der Allgemeinheit hinsichtlich der Auswirkungen von Chemikalien auf Gesundheit, Sicherheit und Umwelt entgegenzuwirken. Zu den Mandaten des Programms gehört, dass teilnehmende Unternehmen die Öffentlichkeit dahingehend an der Responsible Care®-Initiative beteiligen, dass deren Anliegen vorgebracht werden können und man diesen nachkommt. Hierdurch sollen im Rahmen einer verantwortungsbewussten Herstellung von Chemikalien kontinuierliche Fortschritte erzielt werden, so dass Unfälle, Verletzungen und Schädigungen der Umwelt vermieden werden können.

Gesundheit, Sicherheit und Produktverantwortung

Als verantwortungsbewusster Hersteller chemischer Produkte hat Sicherheit für Honeywell höchste Priorität. „Safety first“ heißt das oberste Gebot in sämtlichen Produktionsstätten der Honeywell-Gruppe. Alle unsere Systeme und Verfahren sind stringent und unterliegen einer ständigen Kontrolle. Honeywells Produktverantwortung hat unternehmensweite Geltung – im Rahmen dieses Programms verpflichtet sich das Unternehmen zur Übernahme einer Verantwortung, die sich über den gesamten Lebenszyklus eines Produkts erstreckt.

Packaging

Honeywell arbeitet kontinuierlich daran, neue Verpackungslösungen zu kreieren, um den Anforderungen der Kunden zu entsprechen.

Das Team für Verpackungen am Standort der ehemaligen Riedel-de Haen AG hat Lösungen geschaffen, die zum Industriestandard geworden sind. Um höchste Qualität und Konsistenz zu gewährleisten, bietet Honeywell ein umfangreiches Portfolio an Verpackungen an, um die hohe Qualität der Laborchemikalien und Lösungsmittel auf bei der Lagerung zu gewährleisten.

Honeywell

Laborchemikalien gehören dem Unternehmensbereich Specialty Materials an, einem der weltweiten Marktführer im Bereich hochleistungsfähiger Materialien, wie Fluorkohlenwasserstoff, Spezialfilme und -gase, Katalysatoren, innovative und kundenspezifische Forschungschemikalien sowie Zwischenprodukte, Spezial- und Feinchemikalien. Specialty Materials ist darüber hinaus einer der führenden Anbieter von Materialien und Lösungen für die Elektronikindustrie und für Technologien und Materialien für die Petrochemie.

Honeywell ist ein diversifiziertes Technologieunternehmen mit Sitz in Morristown, New Jersey, USA. Das Unternehmen beliefert weltweit Kunden in den Bereichen Luft- und Raumfahrtindustrie, Gebäude-, Haus- und Industrieautomationen, Produkten für die Automobilbranche, Turboladern, Spezialchemikalien, Fasern sowie elektronischen und hoch entwickelten Materialien.



Erläuterungen

Analyseangaben

Die Reinheit der Analysechemikalien und Spezialqualitäten von Honeywell wird durch die Angabe von Garantieanalysen – Mindest- („min.“) und Maximalgehalte („max.“) – in den Spezifikationen beschrieben. Typanalysen (Gehaltsangaben ohne Zusatz „min.“ oder „max.“) sind Durchschnittswerte aus den Analysen der Einzelchargen.

Arzneibuchqualitäten

Wenn die Chemikalienbezeichnung mit dem Zusatz von Pharmakopöen erfolgt, entspricht der Artikel den Anforderungen dieser Arzneibücher. Fehlen deren Ausgabebezeichnungen, so handelt es sich um die letzte gültige Fassung einer Pharmakopöe für ihren Geltungsbereich. Häufig enthalten diese Artikel geringere Mengen an Verunreinigungen, als sie die jeweiligen Arzneibücher zulassen; in den Spezifikationen werden dann typische Werte für die Verunreinigungen angegeben. Die Reinheits-

prüfung durch Honeywell enthebt den Käufer oder Verarbeiter nicht davon, selbst die Bestimmungen der jeweils gültigen Arzneimittelgesetze zu beachten. Insbesondere sind bei der Herstellung von Injektions- und Infusionslösungen die arzneibuchüblichen Richtlinien hinsichtlich Zubereitung, Sterilisation und Pyrogentest zu berücksichtigen.

Etiketten

Maßgebend für die Qualität eines Produktes sind die Angaben in den Qualitätsbescheinigungen.

Gewährleistung

Die Gewährleistung richtet sich nach unseren Allgemeinen Verkaufsbedingungen.

Abkürzungen und Zeichenerklärungen

Verpackung

AL	Aluminiumbehälter
BA	Glasballon
BL	Blechbehälter
BLT	Blechtrommel
F	Metallfass
FIBC	Flexibler-IBC (Big Bag)
FL	Glasflasche
FP	Fass (Plastik)
FT	Fibertrommel
K	Karton
KA	Blechkanne
KIBC	Kombinations-IBC (Kunststoffcontainer)
KWG	Kesselwagen
MF	Mehrweg-Metallfass
MIBC	Metallischer-IBC (VA-Tankcontainer)
MKA	Mehrweg-Metallkanne
MPK	Mehrweg-Plastikkanister
PE	Plastikflasche und PE-Beutel
PK	Plastikkanister
PT	Plastiktrommel/Plastikeimer
S	Sack (Plastik-, Papier-, Jute-)
STP	Stahlblechplastik-Kombibehälter
TAZG	Tankwagen





Physikalische Einheiten

Å	Ångström
D	Dichte
E0	Normalpotenzial
g	Gramm
kg	Kilogramm
l	Liter
M	molare Masse
m	Meter

Physikalische Einheiten Fortsetzung

mm	Millimeter
mg	Milligramm
ml	Milliliter
mol	Mol (Stoffmenge)
n	Brechungsindex
nm	Nanometer
[α] _D ²⁰	Drehung
e	molarer dekadischer Extinktionskoeffizient
h	dynamische Viskosität
µm	Mikrometer

Abkürzungen

AAS	Atomabsorptions Spektroskopie
ASTM	American Society for Testing and Materials
CAS	Chemical Abstract Service
C.I.Nr.	Color Index Number
CSB	Chemischer Sauerstoffbedarf
DC	Dünnschichtchromatographie
DCP	Direct Current Plasma
DIN	Deutsches Institut für Normung
ECD	Electron Capture Detector
EINECS	European Inventory of Existing Commercial Chemical Substances
FIA	Fluoreszenz Indikator-Analyse
FID	Flammen Ionisations Detektor
GC	Gaschromatographie
GefStoffV	Gefahrstoffverordnung
HPLC	High Performance Liquid Chromatography
HPTLC	High Performance Thin Layer Chromatography
ICP	Inductive Current Plasma
IR	Infrarot-Spektroskopie
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
MAK	Maximale Arbeitsplatz Konzentration
MCW	Microwave-coupled Plasma

NMR	Nuclear Magnetic Resonance
PCB	Polychlorierte Biphenyle
PSC	Präparative Schichtchromatographie
SC	Säulenchromatographie
S. Nr.	Nummer der Schultz'schen Farbstofftabelle, 7. Auflage
TLC	Thin Layer Chromatographie
UV	Ultraviolet Spectroscopy
UV/Vis	Spektroskopie im UV- und sichtbaren Bereich

Transportvorschriften

Die Klasseifizierung der gefährlichen Güter entspricht den zum Zeitpunkt des Druckes dieser Liste gültigen Transportvorschriften. Der Versand erfolgt nach den am Versandtag gültigen Transportvorschriften. Für die Richtigkeit übernehmen wir keine Haftung.

GGVE/GGVS	Gefahrgutverordnung Eisenbahn/Straße. Gültig für die Beförderung innerhalb der Bundesrepublik Deutschland auf Schiene und Straße.
RID/ADR	Règlement international concernant le transport ferroviaire des marchandises dangereuses/Accord européen relatif au transport international des marchandises par route. Ordnung für die internationale Eisenbahnbeförderung gefährlicher Güter/Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße.
IMDG-Code	International maritime dangerous goods code. (Gefahrgutverordnung See – GGVSee) Gültig für die Beförderung mit Seeschiffen.
IATA-DGR	“Dangerous Goods Regulation” der International Air Transport Association – Vereinigung der Luftverkehrs-Gesellschaften/(ICAO-TI) Technical Instructions der International Civil Aviation Organisation – Internationale Zivil-Luftfahrt Organisation der UN (künftige Gefahrgutverordnung Luft – GGVLUF). Gültig für den Transport in Passagier-(PAX) und Fracht-Flugzeugen (CAO).
Klasse 1	Explosive Stoffe und Gegenstände mit Explosivstoffen
Klasse 2	Verdichtete, verflüssigte oder unter Druck gelöste Gase
Klasse 3	Entzündbare flüssige Stoffe
Klasse 4.1	Entzündbare feste Stoffe
Klasse 4.2	Selbstentzündliche Stoffe
Klasse 4.3	Stoffe, die in Berührung mit Wasser entzündliche Gase entwickeln
Klasse 5.1	Entzündend (oxidierend) wirkende Stoffe
Klasse 5.2	Organische Peroxide
Klasse 6.1	Giftige Stoffe
Klasse 6.2	Ansteckungsgefährliche Stoffe
Klasse 7	Radioaktive Stoffe
Klasse 8	Ätzende Stoffe
Klasse 9	Verschiedene gefährliche Stoffe und Gegenstände
EMS	Emergency Schedule / Unfallmerkblatt Seeverkehr
MFAG	Leitfaden für medizinische Maßnahmen bei Unfällen mit Gefahrgütern

Die angegebenen Flammpunkte sind zum Teil Literaturwerte. Gefährliche Güter sind grundsätzlich vom Postversand ausgeschlossen.





Pharmakopöen

DAB	Deutsches Arzneibuch
DAC	Deutscher Arzneimittel-Codex
Erg. B.	Ergänzungsbuch zum Deutschen Arzneibuch
B. P.	British Pharmacopoeia
B. P. C.	British Pharmaceutical Codex
N. F.	The National Formulary
ÖAB	Österreichisches Arzneibuch
Ph. Belg.	Pharmacopée Belge
Ph. Eur.	Europäisches Arzneibuch
Ph. Franç.	Pharmacopée Française
Ph. Ned.	Pharm. Nederlandica
Ph. Nord.	Pharm. Nordica
U. S. P.	United States Pharmacopoeia

Zeichenerklärungen

®	Warenzeichen (aus den nicht mit ® gekennzeichneten Namen kann nicht geschlossen werden, dass es sich um Freizeichen handelt)
H	Unversteuertes Mineralöl, Abgaben in Gebinden bis 200 l gemäß der „Allgemeinen Erlaubnis zur steuerbegünstigten Verwendung von Mineralölen.“ (Nur für die Bundesrepublik Deutschland)
E	Ermäßigter Steuersatz nach dem Umsatzsteuergesetz (Nur für die Bundesrepublik Deutschland)
[]	Zahlen in eckigen Klammern = Chemical Abstracts Service Registry Numbers (CAS)
<	kleiner als
>	größer als
Δ	Durchmesser
*	Artikel auch in größeren Gebinden lieferbar (z.B. Container)

Gefahrenpiktogramme



Explodierende Bombe
z.B. Explodierende Stoffe



Flamme
z.B. Entzündbare
Flüssigkeiten



Flamme
z.B. Entzündbare Gase



Ätzwirkung
z.B. Hautätzend



Gesundheitsgefahr
z.B. Karzinogenität



Totenkopf
z.B. Akute Toxizität



Flamme über Kreis
z.B. Oxidierende
Feststoffe



Ausrufungszeichen
z.B. Akute Toxizität




Ausrufungszeichen
z.B. Hautreizend



Umwelt
z.B. Gewässergefährdend





Gefahr- und Vorsorgeaussagen

Bezeichnung der besonderen Gefahren H-Sätze

H200	Instabil, explosiv
H201	Explosiv, Gefahr der Massenexplosion
H202	Explosiv; große Gefahr durch Splitter, Spreng- und Wurfstücke
H203	Explosiv; Gefahr durch Feuer, Luftdruck oder Splitter, Spreng- und Wurfstücke
H204	Gefahr durch Feuer oder Splitter, Spreng- und Wurfstücke
H205	Gefahr der Massenexplosion bei Feuer
H220	Extrem entzündbares Gas
H221	Entzündbares Gas
H222	Extrem entzündbares Aerosol
H223	Entzündbares Aerosol
H224	Flüssigkeit und Dampf extrem entzündbar
H225	Flüssigkeit und Dampf leicht entzündbar
H226	Flüssigkeit und Dampf entzündbar
H228	Entzündbarer Feststoff
H240	Erwärmung kann Explosion verursachen
H241	Erwärmung kann Brand oder Explosion verursachen
H242	Erwärmung kann Brand verursachen
H250	Entzündet sich in Berührung mit Luft von selbst
H251	Selbsterhitzungsfähig; kann in Brand geraten
H252	In großen Mengen selbsterhitzungsfähig; kann in Brand geraten
H260	In Berührung mit Wasser entstehen entzündbare Gase, die sich spontan entzünden können
H261	In Berührung mit Wasser entstehen entzündbare Gase
H270	Kann Brand verursachen oder verstärken; Oxidationsmittel
H271	Kann Brand oder Explosion verursachen; starkes Oxidationsmittel
H272	Kann Brand verstärken; Oxidationsmittel.
H280	Enthält Gas unter Druck; kann bei Erwärmung explodieren
H281	Enthält tiefkaltes Gas; kann Kälteverbrennungen oder -Verletzungen verursachen
H290	Kann gegenüber Metallen korrosiv sein
H300	Lebensgefahr bei Verschlucken
H301	Giftig bei Verschlucken
H302	Gesundheitsschädlich bei Verschlucken
H304	Kann bei Verschlucken und Eindringen in die Atemwege tödlich sein
H310	Lebensgefahr bei Hautkontakt
H311	Giftig bei Hautkontakt
H312	Gesundheitsschädlich bei Hautkontakt
H314	Verursacht schwere Verätzungen der Haut und schwere Augenschäden

H315	Verursacht Hautreizungen
H317	Kann allergische Hautreaktionen verursachen
H318	Verursacht schwere Augenschäden
H319	Verursacht schwere Augenreizung
H330	Lebensgefahr bei Einatmen
H331	Giftig bei Einatmen
H332	Gesundheitsschädlich bei Einatmen
H334	Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen
H335	Kann die Atemwege reizen
H336	Kann Schläfrigkeit und Benommenheit verursachen
H340	Kann vermutlich genetische Defekte verursachen <Expositionsweg angeben, sofern schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H341	Kann genetische Defekte verursachen <Expositionsweg angeben, sofern schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H350	Kann Krebs erzeugen <Expositionsweg angeben, sofern schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H351	Kann vermutlich Krebs erzeugen <Expositionsweg angeben, sofern schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H360	Kann die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen <konkrete Wirkung angeben, sofern bekannt> <Expositionsweg angeben, sofern schlüssig belegt ist, dass die Gefahr bei keinem anderen Expositionsweg besteht>
H361	Kann vermutlich die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen < konkrete Wirkung angebe,n sofern bekannt > <Expositionsweg angeben, sofern schlüssig belegt ist, dass die Gefahr bei keinem anderen Expositionsweg besteht>
H362	Kann Säuglinge über die Muttermilch schädigen
H370	Schädigt die Organe <oder alle betroffenen Organe nennen, sofern bekannt> <Expositionsweg angeben, sofern schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H371	Kann die Organe schädigen <oder alle betroffenen Organe nennen, sofern bekann> <Expositionsweg angeben, sofern schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H372	Schädigt die Organe <alle betroffenen Organe nennen> bei längerer oder wiederholter Exposition <Expositionsweg angeben, wenn schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H373	Kann die Organe schädigen <alle betroffenen Organe nennen, sofern bekannt> bei längerer oder wiederholter Exposition <Expositionsweg angeben, wenn schlüssig belegt ist, dass diese Gefahr bei keinem anderen Expositionsweg besteht>
H400	Sehr giftig für Wasserorganismen
H410	Sehr giftig für Wasserorganismen mit langfristiger Wirkung
H411	Giftig für Wasserorganismen, mit langfristiger Wirkung





H412	Schädlich für Wasserorganismen, mit langfristiger Wirkung
H413	Kann für Wasserorganismen schädlich sein, mit langfristiger Wirkung
<hr/>	
EUH001	In trockenem Zustand explosionsgefährlich
EUH006	Mit und ohne Luft explosionsfähig
EUH014	Reagiert heftig mit Wasser
EUH018	Kann bei Verwendung explosionsfähige/entzündbare Dampf/Luft-Gemische bilden
<hr/>	
EUH019	Kann explosionsfähige Peroxide bilden
EUH029	Entwickelt bei Berührung mit Wasser giftige Gase.
EUH031	Entwickelt bei Berührung mit Säure giftige Gase
EUH032	Entwickelt bei Berührung mit Säure sehr giftige Gase
EUH044	Explosionsgefahr bei Erhitzen unter Einschluss
EUH059	Die Ozonschicht schädigend
EUH066	Wiederholter Kontakt kann zu spröder oder rissiger Haut führen
EUH070	Giftig bei Berührung mit den Augen
EUH071	Wirkt ätzend auf die Atemwege
EUH201	Enthält Blei. Nicht für den Anstrich von Gegenständen verwenden, die von Kindern gekaut oder gelutscht werden könnten. Achtung! Enthält Blei
<hr/>	
EUH201A	Enthält Blei. Nicht für den Anstrich von Gegenständen verwenden, die von Kindern gekaut oder gelutscht werden könnten. Achtung! Enthält Blei
<hr/>	
EUH202	Cyanacrylat. Gefahr. Klebt innerhalb von Sekunden Haut und Augenlider zusammen. Darf nicht in die Hände von Kindern gelangen
EUH203	Enthält Chrom (VI). Kann allergische Reaktionen hervorrufen
EUH204	Enthält Isocyanate. Kann allergische Reaktionen hervorrufen
EUH205	Enthält epoxidhaltige Verbindungen. Kann allergische Reaktionen hervorrufen
<hr/>	
EUH206	Achtung! Nicht zusammen mit anderen Produkten verwenden, da gefährliche Gase (Chlor) freigesetzt werden können
<hr/>	
EUH207	Achtung! Enthält Cadmium. Bei der Verwendung entstehen gefährliche Dämpfe. Hinweise des Herstellers beachten. Sicherheitsanweisungen einhalten
<hr/>	
EUH208	Enthält <Name des sensibilisierenden Stoffes>. Kann allergische Reaktionen hervorrufen
<hr/>	
EUH209/ EUH209A	Kann bei Verwendung leicht entzündbar werden. Kann bei Verwendung entzündbar werden
EUH210	Sicherheitsdatenblatt auf Anfrage erhältlich
EUH401	Zur Vermeidung von Risiken für Mensch und Umwelt die Gebrauchsanleitung einhalten
<hr/>	

Bezeichnung der vorbeugende Aussagen (P-statements)

P101	Ist ärztlicher Rat erforderlich, Verpackung oder Kennzeichnungsetikett bereithalten
P102	Darf nicht in die Hände von Kindern gelangen
P103	Vor Gebrauch Kennzeichnungsetikett lesen
P201	Vor Gebrauch besondere Anweisungen einholen
P202	Vor Gebrauch alle Sicherheitshinweise lesen und verstehen
P210	Von Hitze/Funken/offener Flamme/heißen Oberflächen fernhalten. Nicht rauchen
P211	Nicht gegen offene Flamme oder andere Zündquelle sprühen
P220	Von Kleidung/.../brennbaren Materialien fernhalten/entfernt aufbewahren
P221	Mischen mit brennbaren Stoffen/... unbedingt verhindern
P222	Kontakt mit Luft nicht zulassen
P223	Kontakt mit Wasser wegen heftiger Reaktion und möglichem Aufflammen unbedingt verhindern
P230	Feucht halten mit ...
P231	Unter inertem Gas handhaben
P232	Vor Feuchtigkeit schützen
P233	Behälter dicht verschlossen halten
P234	Nur im Originalbehälter aufbewahren
P235	Kühl halten
P240	Behälter und zu befüllende Anlage erden
P241	Explosionsgeschützte elektrische Betriebsmittel/Lüftungsanlagen/ Beleuchtung/... verwenden
P242	Nur funkenfreies Werkzeug verwenden
P243	Maßnahmen gegen elektrostatische Aufladungen treffen
P244	Druckminderer frei von Fett und Öl halten
P250	Nicht schleifen/stoßen/.../reiben
P251	Behälter steht unter Druck: Nicht durchstechen oder verbrennen, auch nicht nach der Verwendung
P260	Staub/Rauch/Gas/Nebel/Dampf/Aerosol nicht einatmen
P261	Einatmen von Staub/Rauch/Gas/?Nebel/Dampf/Aerosol vermeiden
P262	Nicht in die Augen, auf die Haut oder auf die Kleidung gelangen lassen
P263	Kontakt während der Schwangerschaft/und der Stillzeit vermeiden
P264	Nach Gebrauch ... gründlich waschen
P270	Bei Gebrauch nicht essen, trinken oder rauchen
P271	Nur im Freien oder in gut belüfteten Räumen verwenden
P272	Kontaminierte Arbeitskleidung nicht außerhalb des Arbeitsplatzes tragen
P273	Freisetzung in die Umwelt vermeiden
P280	Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen
P281	Vorgeschriebene persönliche Schutzausrüstung verwenden
P282	Schutzhandschuhe/Gesichtsschild/Augenschutz mit Kälteisolierung tragen
P283	Schwer entflammbare /flammhemmende Kleidung tragen





P284	Atemschutz tragen
P285	Bei unzureichender Belüftung Atemschutz tragen
P231+232	Unter inertem Gas handhaben. Vor Feuchtigkeit schützen
P235+410	Kühl halten. Vor Sonnenbestrahlung schützen
P301	BEI VERSCHLUCKEN
P302	BEI BERÜHRUNG MIT DER HAUT
P303	BEI BERÜHRUNG MIT DER HAUT (oder dem Haar)
P304	BEI EINATMEN
P305	BEI KONTAKT MIT DEN AUGEN
P306	BEI KONTAMINierter KLEIDUNG
P307	BEI Exposition
P308	BEI Exposition oder falls betroffen
P309	BEI Exposition oder Unwohlsein
P310	Sofort GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P311	GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P312	Bei Unwohlsein GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P313	Ärztlichen Rat einholen / ärztliche Hilfe hinzuziehen
P314	Bei Unwohlsein ärztlichen Rat einholen / ärztliche Hilfe hinzuziehen
P315	Sofort ärztlichen Rat einholen / ärztliche Hilfe hinzuziehen
P320	Besondere Behandlung dringend erforderlich (siehe ... auf diesem Kennzeichnungsetikett)
P321	Besondere Behandlung (siehe ... auf diesem Kennzeichnungsetikett)
P322	Gezielte Maßnahmen (siehe ... auf diesem Kennzeichnungsetikett)
P330	Mund ausspülen
P331	KEIN Erbrechen herbeiführen
P332	Bei Hautreizung
P333	Bei Hautreizung oder -ausschlag
P334	In kaltes Wasser tauchen / nassen Verband anlegen
P335	Lose Partikel von der Haut abbürsten
P336	Vereiste Bereiche mit lauwarmem Wasser auftauen. Betroffenen Bereich nicht reiben
P337	Bei anhaltender Augenreizung
P338	Eventuell Vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter ausspülen
P340	Die betroffene Person an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert
P341	Bei Atembeschwerden an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert
P342	Bei Symptomen der Atemwege
P350	Behutsam mit viel Wasser und Seife waschen
P351	Einige Minuten lang behutsam mit Wasser ausspülen
P352	Mit viel Wasser und Seife waschen
P353	Haut mit Wasser abwaschen/duschen
P360	Kontaminierte Kleidung und Haut sofort mit viel Wasser abwaschen und danach Kleidung ausziehen
P361	Alle kontaminierten Kleidungsstücke sofort ausziehen
P362	Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen
P363	Kontaminierte Kleidung vor erneutem Tragen waschen
P370	Bei Brand

P371	Bei Großbrand und großen Mengen
P372	Explosionsgefahr bei Brand
P373	KEINE Brandbekämpfung, wenn das Feuer explosive Stoffe/ Gemische/Erzeugnisse erreicht
P374	Brandbekämpfung mit üblichen Vorsichtsmaßnahmen aus angemessener Entfernung
P375	Wegen Explosionsgefahr Brand aus der Entfernung bekämpfen
P376	Undichtigkeit beseitigen, wenn gefahrlos möglich
P377	Brand von ausströmendem Gas: Nicht löschen, bis Undichtigkeit gefahrlos beseitigt werden kann
P378	... zum Löschen verwenden
P380	Umgebung räumen
P381	Alle Zündquellen entfernen, wenn gefahrlos möglich
P390	Verschüttete Mengen aufnehmen, um Materialschäden zu vermeiden
P391	Verschüttete Mengen aufnehmen
P301+310	BEI VERSCHLUCKEN: Sofort GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P301+312	BEI VERSCHLUCKEN: Bei Unwohlsein GIFTINFORMATIONSZEN- TRUM oder Arzt anrufen
P301+330+ 331	BEI VERSCHLUCKEN: Mund ausspülen. KEIN Erbrechen herbeiführen
P302+334	BEI KONTAKT MIT DER HAUT: In kaltes Wasser tauchen/nassen Verband anlegen
P302+350	BEI KONTAKT MIT DER HAUT: Behutsam mit viel Wasser und Seife waschen
P302+352	BEI KONTAKT MIT DER HAUT: Mit viel Wasser und Seife waschen
P303+361+	BEI KONTAKT MIT DER HAUT (oder dem Haar): Alle beschmutzten, getränkten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen
P304+340	BEI EINATMEN: An die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert
P304+341	BEI EINATMEN: Bei Atembeschwerden an die frische Luft bringen und in einer Position ruhigstellen, die das Atmen erleichtert
P305+351+ 338	BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Vorhandene Kontaktlinsen nach Möglichkeit entfernen ... Weiter spülen
P306+360	BEI KONTAKT MIT DER KLEIDUNG: Kontaminierte Kleidung und Haut sofort mit viel Wasser abwaschen und danach Kleidung ausziehen
P307+311	BEI Exposition: GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P308+313	BEI Exposition oder falls betroffen: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen
P309+311	BEI Exposition oder Unwohlsein: GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P332+313	Bei Hautreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen
P333+313	Bei Hautreizung oder -ausschlag: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen
P335+334	Lose Partikel von der Haut abbürsten. In kaltes Wasser tauchen/ nassen Verband anlegen





P337+313	Bei anhaltender Augenreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen
P342+311	Bei Symptomen der Atemwege: GIFTINFORMATIONSZENTRUM oder Arzt anrufen
P370+376	Bei Brand: Undichtigkeit beseitigen, wenn gefahrlos möglich
P370+378	Bei Brand: ... zum Löschen verwenden
P370+380	Bei Brand: Umgebung räumen
P370+380+	Bei Brand: Umgebung räumen. Wegen Explosionsgefahr Brand aus 375 der Entfernung bekämpfen
P371+380 375	Bei Großbrand und großen Mengen: Umgebung räumen. Wegen Explosionsgefahr Brand aus der Entfernung bekämpfen
P401	... aufbewahren
P402	An einem trockenen Ort aufbewahren
P403	An einem gut belüfteten Ort aufbewahren
P404	In einem geschlossenen Behälter aufbewahren
P405	Unter Verschluss aufbewahren
P406	In korrosionsbeständigem/... Behälter mit korrosionsbeständiger Auskleidung aufbewahren
P407	Luftspalt zwischen Stapeln/Paletten lassen
P410	Vor Sonnenbestrahlung schützen
P411	Bei Temperaturen von nicht mehr als ...°C/...aufbewahren
P412	Nicht Temperaturen von mehr als 50 °C aussetzen
P413	Schüttgut in Mengen von mehr als ... kg bei Temperaturen von nicht mehr als ...°C aufbewahren
P420	Von anderen Materialien entfernt aufbewahren
P422	Inhalt in/unter ... aufbewahren
P402+404	In einem geschlossenen Behälter an einem trockenen Ort aufbewahren
P403+233	Behälter dicht verschlossen an einem gut belüfteten Ort aufbewahren
P403+235	Kühl an einem gut belüfteten Ort aufbewahren
P410+403	Vor Sonnenbestrahlung geschützt an einem gut belüfteten Ort aufbewahren
P410+412	Vor Sonnenbestrahlung schützen und nicht Temperaturen von mehr als 50°C aussetzen
P411+235	Kühl und bei Temperaturen von nicht mehr als ...°C aufbewahren
P501	Inhalt/Behälter ... zuführen

Verpackung für hochreine Produkte

Da fortwährend neue Anwendungen entwickelt und immer neue Anforderungen an Verpackungssysteme gestellt werden, legt Honeywell einen Schwerpunkt auf die Entwicklung von Verpackungslösungen, die höchsten Kundenansprüchen gerecht werden.

Die Spezialisten für Verpackungssysteme der ehemaligen Riedel-de Haën AG haben Technologien entwickelt, die heutzutage einen Branchenstandard bilden. Honeywell bietet eine Vielzahl an Verpackungstechniken und -optionen an, die dem Erhalt der erstklassigen Qualität der enthaltenen Lösungsmittel- und Reagenzprodukte während Transport und Lagerung dienen. B&J Lösungsmittel sind in verschiedenen Verpackungsgrößen erhältlich – von kleinen Mengen für den Laborbedarf bis hin zu Großbehältern für Produktionszwecke. Zusätzlich zu Flaschen und Fässern bietet Honeywell innovative Mehrweg-Behälter, um neben der Laborsicherheit und der optimalen Handhabung auch einen Beitrag zum Umweltschutz zu leisten.

Edelstahlbehälter mit Druckdosiersystem

Edelstahlbehälter mit Druckdosiersystem, erhältlich in 1000-l- und 1400-l-Größen, sind die idealen Behälter für hochreine Lösungsmittel, die derzeit auf dem Markt zu finden sind.

Diese aus dauerhaftem Inertmaterial hergestellten geschlossenen Systeme können bei normalem Betriebsdruck (<1,035 bar) angeschlossen werden, wobei Schnellkupplungen für Edelmittel und Lösungsmittel für minimalen Lösungsmittelverlust und Lufteinschluss sorgen. Hochreine PTFE-Schläuche und Zubehörteile gewährleisten den kontaminationsfreien Direktanschluss an ein Instrument oder ein Dosiersystem in einem Abzug.

Alle inneren Oberflächen der Schnellkupplungen wurden speziell für hochreine Lösungsmittel entwickelt und bestehen daher aus 316er Edelstahl. Diese stabilen, hoch zuverlässigen Anschlüsse sorgen dafür, dass die Reinheit der Lösungsmittel nicht beeinträchtigt wird, und minimieren die Emission von Dämpfen. Ihr Nenndruck beträgt 3 bar.





Mehrweg-Edelstahlfässer

Um Kontaminationen während des Anschließens zu vermeiden, wurden die Mehrweg-Edelstahlfässer, die in 45-l- und 200-l-Größen erhältlich sind, als halboffene Systeme konzipiert. Die Edelstahlfässer erhalten die Qualität der Lösungsmittel wesentlich besser als Kunststoff- oder Aluminiumbehälter. Zur einfachen Handhabung sind alle Fässer mit einem bis auf den Boden des Behälters reichenden Tauchrohr ausgestattet.

Honeywell bietet zudem ein Entnahmesystem mit verschiedenen Dosierungsmöglichkeiten, Druckausgleich, Gas und einem Überdruckventil an.



Mehrweg-Edelstahlfässer

Metallkanister und -fässer

Zum Schutz vor Rostpartikelbildung und Kontaminationen, die normalerweise in Kanistern und Fässern auftreten, besitzen die 30-l-Kanister und 200-l-Fässer auf der Innenseite eine lösungsmittelbeständige Beschichtung. Die 30-l-Kanister sind mit einem praktischen Haltegriff und einer spritzfreien, wiederverschließbaren Ausgusstülle ausgestattet, sodass die Reinheit des enthaltenen Lösungsmittels nicht beeinträchtigt wird. Die Fässer sind mit 3/4"- und 2"-Gewindepasungen ausgestattet.

Honeywell bietet robuste Edelstahldosiersysteme mit Tauchrohr für den Druckausgleich und die Dosierung an.



Metallkanister und -fässer

Glasflaschen

Die in 1-l- und 2,5-l-Größen erhältlichen Braun-glasflaschen sind aufgrund ihrer Inerteigenschaften der Branchenstandard für hochreine Lösungsmittel. Sie lassen sich leicht handhaben, beanspruchen nur wenig Platz auf dem Labortisch und können direkt an die Anschlussysteme von Laborausrüstung wie HPLC-Instrumenten und DNA-Synthesizern angeschlossen werden.

Weitere Verpackungsmöglichkeiten sind auf Anfrage erhältlich.



Glasflaschen

Products

Please note, Honeywell does not guarantee that the information in the production section is complete and accurate in every detail. It reflects the status as of January 2011. For verification of any given information please contact Honeywell (see contact details on the backpage).

Bitte beachten Sie, Honeywell übernimmt keine Garantie dafür, dass alle Informationen in diesem Produktteil vollständig und in jedem Detail korrekt sind. Die Produktinformation entspricht dem Stand Januar 2011. Um Daten zu verifizieren, kontaktieren Sie Honeywell bitte noch einmal direkt (siehe Angaben auf der Rückseite).

Acetic Acid

$C_2H_4O_2$

M = 60.05 g/mol

CAS [64-19-7]

EC number 2005807

Density: ca. 1,050 g/cm³

Kp: 119 °C

F: 40 °C

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P301 + P330 + P331, P302 + P352, P304 + P340, P305 + P351 + P338



65923 Acetic acid 100 %, extra pure, meets analytical specification of Ph. Eur., BP, USP, FCC, E 260

appearance		complying
assay		99.8-100.5 %
congealing - freezing point	min.	15.6 °C
non-volatile matter	max.	0.003 %
aluminium (Al)	max.	0.00005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0002 %
lead (Pb)	max.	0.00005 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0002 %
chloride (Cl)	max.	0.0002 %
sulfate (SO ₄)	max.	0.0005 %
KMNO ₄ red. matter(as HCOOH)	max.	0.01 %
K ₂ Cr ₂ O ₇ red. matter		complying
residual solvents		complying

Order No.: **10314929** (1 L HDPE-bottle)
10327211 (200 L PE drum)
10579712 (1000 KG HDPE IBC)

65826 Acetic acid min. 99,8 % for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99.8 %
assay (GC)	min.	99.8 %
boiling range		117-119 °C
congealing - freezing point	min.	16.3 °C
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.4 %
silver (Ag)	max.	0.000001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000001 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00002 %
cadmium (Cd)	max.	0.000002 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000005 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00002 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000005 %

Order No.: **10314836** (0,250 L HDPE-bottle)
10315087 (1 L HDPE-bottle)
10313699 (2,5 L glass bottle)

lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.000001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
heavy metals (as Pb)	max.	0.00005 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.00005 %
KMNO ₄ red. matter(as HCOOH)	max.	0.002 %
acetaldehyde	max.	0.0002 %
acetic anhydride (GC)	max.	0.01 %
indifference to chromic acid		complying
mixable with H ₂ O		complying
titrable base	max.	0.0004 meq/g
APHA	max.	10
appearance of the substance		complying

65992 Acetic acid 96 %, for analysis

assay	min.	96 %
non-volatile matter	max.	0.0005 %
silver (Ag)	max.	0.000001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000001 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00002 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.00005 %
KMNO ₄ red. matter(as HCOOH)	max.	0.002 %
acetaldehyde	max.	0.0002 %
indifference to chromic acid		complying

Order No.: **10315821** (1 L HDPE-bottle)
10315822 (2,5 L HDPE-bottle)

65979 0,1 mol/l Acetic acid

factor 1.000±0.002

Order No.: **10315747** (1 L HDPE-bottle)**65991 0,1 mol/l Acetic acid**

factor 1.000±0.002

Order No.: **10315760** (1 L HDPE-bottle)

Acetic acid n-butyl ester → n-Butyl acetate
 Acetic acid dimethylamide → N,N-Dimethylacetamide
 Acetic acid ethyl ester → Ethyl acetate
 Acetic acid methyl ester → Methyl acetate
 Acetic ether → Ethyl acetate

Acetone 2-Propanone, Dimethyl ketoneC₃H₆O

M = 58.08 g/mol

CAS [67-64-1]

EC number 2006622

Density: 0,790 - 0,792 g/cm³

Kp: 55 - 56 °C

F: -19 °C

Signal word: Danger**Supplemental:** EUH066**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P304 + P340, P305 +

P351 + P338, P308 + P313

**65705 Acetone B&J Brand, for liquid chromatography**

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.1 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 330 nm	min.	15 %
transmittance at 335 nm	min.	60 %
transmittance at 340 nm	min.	85 %
transmittance from 350 nm	min.	98 %

Order No.: **10301104** (1 L glass bottle)
10299605 (2,5 L glass bottle)
10301209 (7 L stainless steel drum)
10301975 (45 L stainless steel drum)

65830 Acetone GC Plus for analysis of pesticides, dioxines, furanes and PCBs

assay (GC)	min.	99.8 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.2 %
suitability for residue analysis	max.	5 ng/l
Suit.f.GC-MS of dioxines,furanes,PCP		complying

Order No.: **10313899** (2,5 L glass bottle)
10313900 (7 L stainless steel drum)
10315848 (18 L stainless steel drum)
10313911 (200 L stainless steel drum)

65703 Acetone GC, for gas chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.2 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301101** (1 L glass bottle)
10299607 (2,5 L glass bottle)
10300364 (7 L stainless steel drum)
10300365 (45 L stainless steel drum)

65816 Acetone dried(max. 0,01 % H₂O), for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.8 %
boiling range		55.5-56.5 °C
density (D 20/4)		0.790-0.792
refractive index (n 20/D)		1.3580-1.3600
non-volatile matter	max.	0.001 %
water insoluble substances		complying
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.0015 %
free alkali (as NH ₃)	max.	0.0008 %
acidity or alkalinity		complying
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
KMnO ₄ red. matter (as O)	max.	0.0002 %
reducing impurities		complying
aldehydes (as HCHO)	max.	0.001 %
ethanol (GC)	max.	0.01 %
methanol (GC)	max.	0.05 %
2-propanol (GC)	max.	0.05 %
related subst. (GC)		complying
appearance of the solution		complying
APHA	max.	10
solubility in water		complying

Order No.: **10304958** (2,5 L glass bottle)
10311275 (45 L stainless steel drum)
10304959 (200 L stainless steel drum)

65760 Acetone dried(max. 0,06 % H₂O), for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.8 %
boiling range		55.5-56.5 °C
density (D 20/4)		0.790-0.792
refractive index (n 20/D)		1.3580-1.3600
non-volatile matter	max.	0.001 %
water insoluble substances		complying
water (Karl Fischer)	max.	0.06 %
free acid (as CH ₃ COOH)	max.	0.0015 %
free alkali (as NH ₃)	max.	0.0008 %
acidity or alkalinity		complying
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %

Order No.: **10304005** (2,5 L glass bottle)

copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
KMnO ₄ red. matter (as O)	max.	0.0002 %
reducing impurities		complying
aldehydes (as HCHO)	max.	0.001 %
ethanol (GC)	max.	0.01 %
methanol (GC)	max.	0.05 %
2-propanol (GC)	max.	0.05 %
related subst. (GC)		complying
appearance of the solution		complying
APHA	max.	10
solubility in water		complying

65749 Acetone for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.8 %
boiling range		55.5-56.5 °C
density (D 20/4)		0.790-0.792
refractive index (n _D 20)		1.3580-1.3600
non-volatile matter	max.	0.001 %
water insoluble substances		complying
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.0015 %
free alkali (as NH ₃)	max.	0.0008 %
acidity or alkalinity		complying
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
potassium (K)	max.	0.00005 %
lithium (Li)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.00001 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
KMnO ₄ red. matter (as O)	max.	0.0002 %
reducing impurities		complying
aldehydes (as HCHO)	max.	0.001 %
ethanol (GC)	max.	0.01 %
methanol (GC)	max.	0.05 %

Order No.: **10303369** (1 L HDPE-bottle)
10303370 (2,5 L HDPE-bottle)
10303391 (25 L steel drum)
10303392 (195 L metal drum)

2-propanol (GC)	max.	0.05 %
benzene (GC)	max.	0.0002 %
related subst. (GC)		complying
appearance of the solution		complying
APHA	max.	10
solubility in water		complying

65754 Acetone extra pure, meets analytical specification of Ph. Eur., BP, NF

assay (GC)	min.	99 %
density (D 20/4)		0.790-0.792
density (D 25/25)	max.	0.789
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.3 %
acidity or alkalinity		complying
heavy metals (as Pb)	max.	0.0001 %
related subst. (GC)		complying
benzene (GC)	max.	0.0002 %
methanol (GC)	max.	0.05 %
2-propanol (GC)	max.	0.05 %
reducing impurities		complying
water insoluble substances		complying
residual solvents		complying
appearance of the solution		complying
identity (IR)		complying

Order No.: **10303845** (1 L glass bottle)
10303846 (2,5 L glass bottle)
10303847 (5 L HDPE-bottle)
10303848 (25 L steel drum)
10303849 (195 L metal drum)

65964 Acetone pure

assay (GC)	min.	99 %
water (Karl Fischer)	max.	0.3 %

Order No.: **10315624** (1 L HDPE-bottle)
10315625 (2,5 L HDPE-bottle)

Acetonitrile Methyl cyanide, Cyanomethane

C₂H₃N
M = 41.05 g/mol
CAS [75-05-8]
EC number 2008352
Density: ca. 0,780 g/cm³
Kp: 82 °C
F: 2 °C

Signal word: Danger

Precautionary statements (prevention): P210, P281

Precautionary statements (reaction): P301 + P330 +
P331, P302 + P352, P304 + P340, P305 + P351 + P338



65709 Acetonitrile B&J Brand LC-MS, for liquid chromatography

particles > 0,5 µm		effektive P/ml
assay (GC)	min.	99.95 %
non-volatile matter	max.	0.0001 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0001 meq/g
silver (Ag)	max.	0.1 ppm
aluminium (Al)	max.	0.5 ppm
barium (Ba)	max.	0.1 ppm
calcium (Ca)	max.	0.1 ppm
cadmium (Cd)	max.	0.05 ppm

Order No.: **10299295** (1 L glass bottle)
10299296 (2,5 L glass bottle)
10301212 (7 L stainless steel drum)
10301978 (45 L stainless steel drum)

cobalt (Co)	max.	0.02 ppm
chromium (Cr)	max.	0.02 ppm
copper (Cu)	max.	0.02 ppm
iron (Fe)	max.	0.1 ppm
potassium (K)	max.	0.1 ppm
magnesium (Mg)	max.	0.1 ppm
manganese (Mn)	max.	0.02 ppm
sodium (Na)	max.	0.1 ppm
nickel (Ni)	max.	0.02 ppm
lead (Pb)	max.	0.1 ppm
tin (Sn)	max.	0.1 ppm
zinc (Zn)	max.	0.1 ppm
transmittance at 195 nm	min.	80 %
transmittance at 200 nm	min.	95 %
transmittance from 230 nm	min.	99 %
HPLC-gradient at 210 nm	max.	1.0 mAU
HPLC-gradient at 254 nm	max.	0.2 mAU
baseline drift at 210 nm	max.	12 mAU
fluorescence (chinin) at 254 nm	max.	0.5 ppb
fluorescence (chinin) at 365 nm	max.	0.5 ppb
suitability for the LC-MS		complying

65710 Acetonitrile Super Gradient Grade B&J Brand, for liquid chromatography

assay (GC)	min.	99.95 %
non-volatile matter	max.	0.0001 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0001 meq/g
transmittance at 195 nm	min.	80 %
transmittance at 200 nm	min.	95 %
transmittance from 228 nm	min.	99 %
HPLC-gradient at 210 nm	max.	1 mAU
HPLC-gradient at 254 nm	max.	0.2 mAU
baseline drift at 210 nm	max.	12 mAU
fluorescence (chinin) at 254 nm	max.	0.5 ppb
fluorescence (chinin) at 365 nm	max.	0.5 ppb
APHA	max.	10
suitability for residue analysis	max.	5 ng/l

Order No.: **10299663** (1 L glass bottle)
10299298 (2,5 L glass bottle)
10301213 (7 L stainless steel drum)
10301979 (45 L stainless steel drum)
10314469 (200 L stainless steel drum)

65708 Acetonitrile Gradient Grade B&J Brand, for liquid chromatography, Reag. Ph. Eur.

assay (GC)	min.	99.9 %
boiling range 80-82 °C	min.	95 %
density (D 20/20)		0.782-0.784
refractive index (n 20/D)		1.3435-1.3445
non-volatile matter	max.	0.0002 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0001 meq/g
transmittance at 195 nm	min.	75 %
transmittance at 200 nm	min.	93 %
transmittance from 230 nm	min.	99 %
HPLC-gradient at 210 nm	max.	3 mAU
HPLC-gradient at 254 nm	max.	0.5 mAU
baseline drift at 210 nm	max.	15 mAU

Order No.: **10299661** (1 L glass bottle)
10299662 (2,5 L glass bottle)
10301211 (7 L stainless steel drum)
10301977 (45 L stainless steel drum)
10309574 (185 L SST drum, 0.5 bar)
10301915 (200 L stainless steel drum)
10319772 (1000 L stainless steel IBC)
10304085 (1380 L stainless steel IBC)

fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	0.5 ppb
reaction of the 10 % solution to lit		complying
appearance		complying

65707 Acetonitrile far UV Grade B&J Brand, for liquid chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0002 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0001 meq/g
transmittance at 195 nm	min.	75 %
transmittance at 200 nm	min.	90 %
transmittance at 210 nm	min.	95 %
transmittance from 235 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	0.5 ppb

Order No.: **10301108** (1 L glass bottle)
10299611 (2,5 L glass bottle)
10301210 (7 L stainless steel drum)
10301976 (45 L stainless steel drum)
10311001 (200 L stainless steel drum)

65839 Acetonitrile P Grade B&J Brand, for preparative liquid chromatography, GP

assay (GC)	min.	99.8 %
non-volatile matter	max.	0.0001 %
water (Karl Fischer)	max.	0.1 %
free alkali (as NH ₃)	max.	0.0005 %
transmittance at 220 nm	min.	50 %
transmittance from 240 nm	min.	99 %

Order No.: **10314669** (2,5 L glass bottle)
10324358 (45 L stainless steel drum)
10313934 (1000 L stainless steel IBC)

66141 Acetonitrile HPLC Grade dried (<30ppm H₂O) (Oligo)

appearance		complying
assay (GC. H ₂ O-free substance)	min.	99.9 %
water (Karl Fischer)	max.	0.003 %
transmittance at 220 nm	min.	50 %
transmittance at 240 nm	min.	90 %

Order No.: **10330026** (1000 L stainless steel IBC)

65990 Acetonitrile for spectroscopy

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.001 %
suitability for IR spectroscopy		complying
transmittance at 200 nm	min.	80 %
transmittance at 210 nm	min.	90 %
transmittance at 230 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10315758** (1 L glass bottle)
10315759 (2,5 L glass bottle)

65704 Acetonitrile GC, for gas chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10300366** (1 L glass bottle)
10299613 (2,5 L glass bottle)
10300367 (7 L stainless steel drum)
10301974 (45 L stainless steel drum)

65739 Acetonitrile dried (max. 0,001 % H₂O), for DNA synthesis

assay (GC)	min.	99.9 %
non-volatile matter		effektive %
water (Karl Fischer)	max.	0.001 %
free acid (as CH ₃ COOH)	max.	0.001 %
free alkali (as NH ₃)	max.	0.0001 %

Order No.: **10300949** (7 L stainless steel drum)
10300946 (45 L stainless steel drum)
10309587 (200 L stainless steel drum)
10311856 (1000 L stainless steel IBC)
10311679 (1385 L stainless steel IBC)

65706 Acetonitrile dried (max. 0,003 % H₂O), for DNA synthesis

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.003 %
free acid (as CH ₃ COOH)	max.	0.001 %
free alkali (as NH ₃)	max.	0.0001 %

Order No.: **10301106** (1 L glass bottle)
10299609 (2,5 L glass bottle)
10300368 (7 L stainless steel drum)
10300438 (45 L stainless steel drum)
10309586 (200 L stainless steel drum)

65792 Acetonitrile for analysis, Reag. ACS, Reag. Ph. Eur.

appearance		complying
assay (GC)	min.	99.5 %
boiling range		81-82 °C
boiling range 80-82 °C	min.	95 %
density (D 20/4)		0.781-0.783
refractive index (n 20/D)		1.3435-1.3445
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.001 %
free alkali (as NH ₃)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
APHA	max.	10

Order No.: **10314072** (1 L glass bottle)
10304341 (2,5 L glass bottle)
10309666 (25 L steel drum)
10311424 (200 L metal drum)

Ammonia Solution Ammonia hydroxide Solution

H₅NO

CAS [1336-21-6]

EC number 2156476

Density: ca. 0,91 g/cm³

Kp: 38 - 100 °C

65871 Ammonia solution ca. 25 % NH₃, for analysis, Reag. ISO, Reag. Ph. Eur.

assay	min.	25 %
density (D 20/20)		0.892-0.910
non-volatile matter	max.	0.0018 %
silver (Ag)	max.	0.000002 %
aluminium (Al)	max.	0.00005 %
gold (Au)	max.	0.00001 %
barium (Ba)	max.	0.000005 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.0001 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000005 %
chromium (Cr)	max.	0.000005 %
copper (Cu)	max.	0.00001 %
iron (Fe)	max.	0.00001 %
gallium (Ga)	max.	0.000002 %
indium (In)	max.	0.000002 %
potassium (K)	max.	0.00005 %
lithium (Li)	max.	0.000002 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000005 %
molybdenum (Mo)	max.	0.000005 %
sodium (Na)	max.	0.0001 %
nickel (Ni)	max.	0.000005 %
lead (Pb)	max.	0.000005 %
platinum (Pt)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00002 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
zinc (Zn)	max.	0.00001 %
heavy metals (as Pb)	max.	0.0001 %
carbonate (as CO ₂)	max.	0.001 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
silicate (as SiO ₂)	max.	0.001 %
sulfate (SO ₄)	max.	0.0002 %
sulfide (S)	max.	0.00002 %
KMnO ₄ red. matter (as O)	max.	0.0005 %
readily oxidizable substances		complying
pyridine	max.	0.00005 %
appearance of the solution		complying

Order No.: **10314737** (1 L glass bottle)

10314738 (1 L HDPE-bottle)

10314210 (2,5 L HDPE-bottle)

10579711 (180 KG PE drum)

65927 Ammonia solution max. 33 % NH₃, extra pure

assay		30-33 %
non-volatile matter	max.	0.002 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0003 %
chloride (Cl)	max.	0.0002 %
sulfate (SO ₄)	max.	0.002 %

Order No.: **10314943** (1 L glass bottle)
10314944 (2,5 L glass bottle)

Ammonium Acetate

C ₂ H ₇ NO ₂	Precautionary statements (prevention): P281
M = 77.08 g/mol	
CAS [631-61-8]	
EC number 2111629	
Density: ca. 1,17 g/cm ³	

65843 Ammonium acetate for analysis, Reag. ACS, Reag. Ph. Eur.

assay	min.	98 %
water insoluble matter	max.	0.005 %
water (Karl Fischer)	max.	2 %
sulfated ash	max.	0.01 %
pH (5 %, 20°C)		6.7-7.3
calcium (Ca)	max.	0.001 %
cadmium (Cd)	max.	0.0002 %
copper (Cu)	max.	0.0002 %
iron (Fe)	max.	0.0002 %
magnesium (Mg)	max.	0.0002 %
lead (Pb)	max.	0.0002 %
zinc (Zn)	max.	0.0002 %
heavy metals (as Pb)	max.	0.0002 %
chloride (Cl)	max.	0.0005 %
nitrate (NO ₃)	max.	0.001 %
sulfate (SO ₄)	max.	0.001 %
KMNO ₄ red. matter(as HCOOH)	max.	0.005 %

Order No.: **10314204** (0,500 KG HDPE-bottle)
10314139 (1 KG HDPE-bottle)
10315126 (2,5 KG HDPE-bottle)
10321807 (5 KG HDPE-bottle)
10313975 (25 KG FIBREBOARD BOX)

Ammonium Chloride

ClH ₄ N	Signal word: Warning
M = 53.49 g/mol	Precautionary statements (prevention): P281
CAS [12125-02-9]	Precautionary statements (reaction): P301 + P330, P305
EC number 2351864	+ P351 + P338, P308 + P313
Density: ca. 1,54 g/cm ³	

**65865 Ammonium chloride for analysis, Reag. ACS, Reag. ISO, Reag. Ph.Eur.**

assay	min.	99.5 %
assay (calc. to the dried substance)		99.5-100.5 %
water insoluble matter	max.	0.005 %
loss on drying (105°C)	max.	0.5 %
residue on ignition (SO ₄)	max.	0.01 %
pH (5 %, 20°C)		4.5-5.5
acidity or alkalinity		complying
arsenic (As)	max.	0.00005 %

Order No.: **10314693** (0,500 KG HDPE-bottle)
10314242 (1 KG HDPE-bottle)
10314694 (2,5 KG HDPE-bottle)

calcium (Ca)	max.	0.0005 %
copper (Cu)	max.	0.0002 %
iron (Fe)	max.	0.0002 %
potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.0005 %
sodium (Na)	max.	0.005 %
nickel (Ni)	max.	0.0001 %
lead (Pb)	max.	0.0001 %
zinc (Zn)	max.	0.0002 %
heavy metals (as Pb)	max.	0.0005 %
nitrate (NO ₃)	max.	0.0005 %
phosphate (PO ₄)	max.	0.0002 %
sulfate (SO ₄)	max.	0.002 %
iodide and bromide		complying
appearance of the solution		complying

Ammonium iron(II) sulfate-6-hydrate

FeH₈N₂O₈S₂ x 6H₂O

Precautionary statements (prevention): P281

M = 392.14 g/mol

CAS [7783-85-9]

EC number 2351864

Density: ca. 1,860 g/cm³

66104 Ammonium iron(II) sulfate-6-hydrate for analysis, Reag. ISO, Reag. Ph. Eur.

assay (manganometric)	min.	99 %
pH (5 %, 20°C)		03.Mai
calcium (Ca)	max.	0.002 %
copper (Cu)	max.	0.002 %
iron (III)	max.	0.02 %
potassium (K)	max.	0.01 %
magnesium (Mg)	max.	0.01 %
manganese (Mn)	max.	0.05 %
sodium (Na)	max.	0.01 %
lead (Pb)	max.	0.001 %
zinc (Zn)	max.	0.003 %
chloride (Cl)	max.	0.001 %
phosphate (PO ₄)	max.	0.002 %

Order No.: **10315862** (0,500 KG HDPE-bottle)

10315863 (1 KG HDPE-bottle)

Ammonium sulfate

H₈N₂O₄S

Precautionary statements (prevention): P281

M = 132.14 g/mol

CAS [7783-20-2]

EC number 2319841

Density: ca. 1,760 g/cm³

65894 Ammonium sulfate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99 %
water insoluble matter	max.	0.005 %
loss on drying (110°C)	max.	0.1 %
residue on ignition (SO ₄)	max.	0.005 %
pH (5 %, 20°C)		05.Jun

Order No.: **10314638** (1 KG HDPE-bottle)

arsenic (As)	max.	0.00002 %
calcium (Ca)	max.	0.001 %
cadmium (Cd)	max.	0.0001 %
cobalt (Co)	max.	0.0005 %
chromium (Cr)	max.	0.0005 %
copper (Cu)	max.	0.0002 %
iron (Fe)	max.	0.0002 %
potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.0002 %
manganese (Mn)	max.	0.0005 %
sodium (Na)	max.	0.002 %
nickel (Ni)	max.	0.0005 %
lead (Pb)	max.	0.0002 %
zinc (Zn)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0002 %
chloride (Cl)	max.	0.0003 %
nitrate (NO ₃)	max.	0.001 %
phosphate (PO ₄)	max.	0.0005 %

Ammonium thiocyanate

NH₄SCN

M = 76.12 g/mol

CAS [1762-95-4]

EC number 2171756

Density: 1,305 g/cm³

Signal word: Warning

Supplemental: EUH032

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P301 + P330, P302
+ P352, P304 + P340, P308 + P313



65899 Ammonium thiocyanate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (argentometric)	min.	99 %
water insoluble matter	max.	0.005 %
residue on ignition (SO ₄)	max.	0.02 %
pH (5 %, 20°C)		4.5-6.0
lead (Pb)	max.	0.0004 %
iron (Fe)	max.	0.0001 %
copper (Cu)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.004 %
sulfate (SO ₄)	max.	0.005 %
sulfide (S)	max.	0.001 %
I red. matters (as SO ₂)	max.	0.005 %

Order No.: **10314659** (0,500 KG HDPE-bottle)

L(+)-Ascorbic acid

C₆H₈O₆

M = 176.12 g/mol

CAS [50-81-7]

EC number 2000662

65932 L(+)-Ascorbic acid (Vitamin C) for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

identity (IR)		complying
assay (oxidimetric)		99.7-100.5 %
sp.rot.[α] _D ²⁰ in H ₂ O		+20.5-+21.5 °
loss on drying (105°C)	max.	0.1 %

Order No.: **10315011** (0,250 KG HDPE-bottle)

sulfated ash	max.	0.05 %
pH (5 %, 20°C)		2.2-2.5
arsenic (As)	max.	0.0001 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0002 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.001 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.005 %
sulfate (SO ₄)	max.	0.002 %
oxalic acid	max.	0.2 %
related subst. (HPLC)		complying
appearance of the solution		complying

Benzene Cyclohexatriene

C₆H₆

M = 78.11 g/mol

CAS [71-43-2]

EC number 2007537

Density: 0,878 - 0,880 g/cm³

Kp: 79 - 81 °C

F: -11 °C

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P301 + P330 + P331, P302 + P352, P305 + P351 + P338, P308 + P313



65960 Benzene for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.7 %
congealing - freezing point	min.	5.2 °C
boiling range		79-81 °C
density (D 20/4)		0.878-0.880
refractive index (n 20/D)		1.5000-1.5020
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.03 %
free acid (as HCl)	max.	0.0004 %
free alkali (as NH ₃)	max.	0.0002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000001 %
other S-compounds (as S)	max.	0.0005 %
thiophene	max.	0.0001 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10315569** (1 L glass bottle)
10315570 (2,5 L glass bottle)

65962 Benzene extra pure

assay (GC)	min.	99.5 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
free acid (as HCl)	max.	0.001 %
thiophene	max.	0.0005 %

Order No.: **10315582** (1 L glass bottle)
10315583 (2,5 L glass bottle)

Benzyl alcohol Phenylcarbinol

C₇H₈O
M = 108.14 g/mol
CAS [100-51-6]
EC number 2028599
Density: 1,043 - 1,049 g/cm³
Kp: 204 - 207 °C
F: 96 °C

Signal word: Warning
Precautionary statements (prevention): P260, P281
Precautionary statements (reaction): P301 + P330 +
P331, P304 + P340, P308 + P313

**65955 Benzyl alcohol extra pure, meets analytical specification of Ph. Eur., BP, NF**

assay (GC)		99-100.5 %
density (D 20/20)		1.043-1.049
density (D 25/25)		1.042-1.047
refractive index (n 20/D)		1.539-1.541
non-volatile matter	max.	0.05 %
water (Karl Fischer)	max.	0.1 %
sulfated ash	max.	0.005 %
free acid (as C ₆ H ₅ COOH)	max.	0.02 %
benzaldehyde (GC)	max.	0.15 %
cyclohexylmethanol (GC)	max.	0.10 %
sum peaks bef. benzyl alcohol GC	max.	0.04 %
sum peaks after benzylalcohol GC	max.	0.3 %
peroxide value	max.	5
related subst. (GC)		complying
residual solvents		complying
identity (IR)		complying
appearance of the solution		complying

Order No.: **10315553** (1 L glass bottle)
10315554 (2,5 L glass bottle)

Boric Acid

BH₃O₃
M = 61.83 g/mol
CAS [10043-35-3]
EC number 2331392
Density: ca. 1,510 g/cm³

Signal word: Danger
Precautionary statements (prevention): P201, P281
Precautionary statements (reaction): P308 + P313

**66105 Boric acid for analysis, buffer substance, Reag. ACS, Reag. ISO, Reag- Ph. Eur.**

assay	min.	99.8 %
insoluble in methanol	max.	0.005 %
pH (4 %, 20°C)		3.6-4.0
pH (3,3 %, 20 °C)		3.8-4.8
with methanol-HCl non-volat. matter	max.	0.05 %
arsenic (As)	max.	0.00005 %
calcium (Ca)	max.	0.002 %

Order No.: **10315865** (0,250 KG HDPE-bottle)
10315864 (1 KG HDPE-bottle)
10315867 (2,5 KG HDPE-bottle)

cadmium (Cd)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0001 %
magnesium (Mg)	max.	0.0005 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0003 %
phosphate (PO ₄)	max.	0.0005 %
sulfate (SO ₄)	max.	0.0005 %
organic matter		complying
appearance of the solution		complying
solubility in C ₂ H ₅ OH		complying

66100 Boric acid extra pure, meets analytical specification of Ph. Eur., BP, NF

assay	99.5-100.5 %	Order No.: 10315854 (1 KG HDPE-bottle)
loss on drying (over silicagel, 5h)	max. 0.5 %	
pH (3,3 %, 20 °C)	3.8-4.8	
arsenic (As)	max. 0.0005 %	
iron (Fe)	max. 0.0005 %	
heavy metals (as Pb)	max. 0.001 %	
sulfate (SO ₄)	max. 0.04 %	
organic matter		complying
residual solvents		complying
solubility in C ₂ H ₅ OH		complying
appearance of the solution		complying

Buffer solution

Density: ca. 1,0 g/cm³
Kp: ca. 100 °C

65944 Buffer solution pH 1,00

pH (20 °C)	1.00 ±0.02	Order No.: 10315443 (1 L HDPE-bottle)
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65945 Buffer solution pH 2,00

pH (20 °C)	2.00 ±0.02	Order No.: 10315444 (1 L HDPE-bottle)
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65946 Buffer solution pH 3,00

pH (20 °C)	3.00 ±0.02	Order No.: 10315445 (1 L HDPE-bottle)
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65947 Buffer solution pH 4,00

pH (20 °C)	4.00 ±0.02	Order No.: 10315446 (1 L HDPE-bottle)
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65948 Buffer solution pH 5,00

pH (20 °C)	5.00 ±0.02	Order No.: 10315447 (1 L HDPE-bottle)
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65949 Buffer solution pH 6,00

pH (20 °C)	6.00 ±0.02	Order No.: 10315448 (1 L HDPE-bottle)
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65941 Buffer solution pH 7,00

pH (20 °C)	7.00 ±0.02	Order No.: 10315026 (1 L HDPE-bottle)
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65950 Buffer solution pH 8,00

pH (20 °C)	8.00 ±0.02	Order No.: 10315449 (1 L HDPE-bottle)
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65942 Buffer solution pH 9,00

pH (20 °C)	9.00 ±0.02	Order No.: 10315027 (1 L HDPE-bottle)
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65951 Buffer solution pH 10,00

pH (20 °C)	10.00 ±0.05	Order No.: 10315450 (1 L HDPE-bottle)
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1-Butanol n-Butyl alcohol, PropylcarbinolC₄H₁₀O

M = 74.12 g/mol

CAS [71-36-3]

EC number 2007516

Density: ca. 0,810 g/cm³

Kp: 116 - 118 °C

F: 29 °C

Signal word: Danger**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P301 + P330 + P331,
P302 + P352, P304 + P340, P305 + P351 + P338**65700 1-Butanol B&J Brand, for liquid chromatography**

assay (GC)	min.	99.8 %	Order No.: 10301063 (1 L glass bottle)
non-volatile matter	max.	0.001 %	10300184 (2,5 L glass bottle)
water (Karl Fischer)	max.	0.05 %	10301203 (7 L stainless steel drum)
acidity	max.	0.0002 meq/g	10301971 (45 L stainless steel drum)
alkalinity	max.	0.0002 meq/g	
transmittance at 210 nm	min.	25 %	
transmittance at 235 nm	min.	80 %	
transmittance from 280 nm	min.	98 %	

65800 1-Butanol for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.5 %	Order No.: 10314132 (1 L glass bottle)
boiling range		116-118 °C	10304417 (2,5 L glass bottle)
density (D 20/4)		0.808-0.812	10311222 (25 L steel drum)
non-volatile matter	max.	0.001 %	10304418 (200 L metal drum)
water (Karl Fischer)	max.	0.1 %	
free acid (as C ₃ H ₇ COOH)	max.	0.005 %	
aluminium (Al)	max.	0.00005 %	
boron (B)	max.	0.000002 %	

barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
aldehydes, ketones (as C ₃ H ₇ CHO)	max.	0.03 %
iso-butanol (GC)	max.	0.15 %
n-butyraldehyd (GC)	max.	0.01 %
di-n-butylether (GC)	max.	0.1 %
2-butanol (GC)	max.	0.05 %
APHA	max.	10

65799 1-Butanol extra pure

assay (GC)	min.	99 %
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.1 %

Order No.: **10304415** (2,5 L glass bottle)
10311221 (25 L steel drum)
10304416 (200 L metal drum)

2-Butanol sec.-Butyl alcohol

C₄H₁₀O

M = 74.12 g/mol

CAS [78-92-2]

EC number 2011585

Density: 0,806 - 0,808 g/cm³

Kp: 98 - 100 °C

F: 24 °C

Signal word: Warning

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P304 + P340, P305 + P351 + P338, P308 + P313




65855 2-Butanol for analysis, Reag. Ph. Eur.

assay (GC)	min.	99 %
boiling range		98.5-100.0 °C
density (D 20/4)		0.806-0.808
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.2 %
free acid (as C ₃ H ₇ COOH)	max.	0.01 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %

Order No.: **10314201** (1 L HDPE-bottle)

nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
tert.-butanol	max.	0.1 %
di-n-butylether (GC)	max.	0.2 %
methyl ethyl ketone (GC)	max.	0.1 %
2-propanol (GC)	max.	0.2 %

tert.-Butanol tert.-Butyl alcohol, 2-Methyl-2-propanol, Trimethylcarbinol

C ₄ H ₁₀ O	Signal word: Danger	
M = 74.12 g/mol	Precautionary statements (prevention): P210, P260, P281	
CAS [75-65-0]	Precautionary statements (reaction): P304 + P340, P305 +	
EC number 2008897	P351 + P338, P308 + P313	
Density: 0,780 - 0,783 g/cm ³		
Kp: 81 - 83 °C		
F: 11 °C		

65823 tert.-Butanol for analysis, Reag. ACS, Reag. Ph. Eur.

assay (GC)	min.	99.5 %
solidification range		25-26 °C
boiling range		81-83 °C
boiling range 81-83 °C	min.	95 %
density (D 25/4)		0.780-0.783
refractive index (n 25/D)		1.3845-1.3855
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
free acid (as C ₃ H ₇ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
barium (Ba)	max.	0.00001 %
lead (Pb)	max.	0.00001 %
boron (B)	max.	0.000002 %
cadmium (Cd)	max.	0.000005 %
calcium (Ca)	max.	0.00005 %
chromium (Cr)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
cobalt (Co)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
zinc (Zn)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
2-butanol (GC)	max.	0.5 %
carbonyl compounds (as HCHO)	max.	0.01 %
APHA	max.	20

Order No.: **10313941** (1 L ALU-bottle)

10313942 (2,5 L ALU-bottle)

10314138 (30 KG steel drum)

10313290 (155 KG metal drum)

2-Butanone (MEK) Ethyl methyl ketone, Methyl ethyl ketone, MEK

C₄H₈O

M = 72.11 g/mol

CAS [78-93-3]

EC number 2011590

Density: ca. 0,8 g/cm³

Kp: 78,5 - 80,5 °C

F: -1 °C

Signal word: Danger

Supplemental: EUH066

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P304 + P340, P305 + P351 + P338, P308 + P313



65762 2-Butanone, for liquid chromatography (Methyl ethyl ketone)

assay (GC)	min.	99.90 %
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.1 %
acidity	max.	0.0005 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 335 nm	min.	55 %
transmittance at 340 nm	min.	85 %
transmittance from 350 nm	min.	98 %

Order No.: **10304026** (2,5 L glass bottle)

10311053 (7 L stainless steel drum)

10304586 (200 L stainless steel drum)

65807 2-Butanone for analysis, Reag. ACS, Reag. Ph. Eur.

assay (GC)	min.	99.5 %
boiling range		78.5-80.5 °C
density (D 20/4)		0.804-0.806
refractive index (n 20/D)		1.3770-1.3810
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.05 %
free acid (as CH ₃ COOH)	max.	0.003 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00002 %
2-butanol (GC)	max.	0.05 %
KMnO ₄ red. matter (as O)	max.	0.0003 %
APHA	max.	15

Order No.: **10314135** (1 L glass bottle)

10304437 (2,5 L glass bottle)

10311427 (25 L steel drum)

10304587 (200 L metal drum varnized)

65806 2-Butanone extra pure (Methyl Ethyl Ketone)

assay (GC)	min.	99 %
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.1 %

Order No.: **10304435** (2,5 L glass bottle)

10311225 (25 L steel drum)

10304436 (200 L metal drum varnized)

n-Butyl acetate Acetic acid n-butyl esterC₆H₁₂O₂

M = 116.16 g/mol

CAS [123-86-4]

EC number 2046581

Density: 0,880 - 0,882 g/cm³

Kp: 124 - 126 °C

F: 27 °C

Signal word: Warning**Supplemental:** EUH066**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P304 + P340, P308 +

P313

**65811 N-Butyl acetate for analysis, Reag. Ph. Eur.**

assay (GC)	min.	99 %
boiling range		124-126 °C
density (D 20/4)		0.880-0.882
refractive index (n 20/D)		1.3940-1.3960
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.01 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
n-butyl formate	max.	0.1 %
1-butanol (GC)	max.	0.5 %
n-Butyl propionate	max.	0.1 %
reaction against H ₂ SO ₄		complying

Order No.: **10311271** (1 L glass bottle)
10304728 (2,5 L glass bottle)
10313869 (200 L metal drum)

65530 N-Butyl acetate

assay (GC)	min.	99 %
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.10 %
1-butanol (GC)	max.	0.10 %
free acid (as CH ₃ COOH)	max.	0.01 %

Order No.: **10310987** (1 L glass bottle)
10286117 (175 KG metal drum)

iso-Butyl alcohol → 2-Methyl-1-propanol

n-Butyl alcohol → 1-Butanol

sec.-Butyl alcohol → 2-Butanol

tert.-Butyl alcohol → tert.-Butanol

n-Butyl chloride → 1-Chlorobutane

iso-Butyl trimethylpentane → iso-octan

tert.-Butyl methyl ether Methyl tert-butyl ether, MTBEC₅H₁₂O

M = 88.15 g/mol

CAS [1634-04-4]

EC number 2166531

Density: 0,740 g/cm³

Kp: 54 - 56 °C

F: -28 °C

Signal word: Danger**Precautionary statements (prevention):** P210, P281**Precautionary statements (reaction):** P302 + P352, P308 + P313**65733 tert.-Butyl methyl ether B&J Brand, for liquid chromatography**

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
peroxides (as H ₂ O ₂)	max.	0.0005 %
transmittance at 220 nm	min.	40 %
transmittance at 250 nm	min.	80 %
transmittance at 260 nm	min.	90 %
transmittance from 290 nm	min.	99 %

Order No.: **10301161** (1 L glass bottle)
10300078 (2,5 L glass bottle)
10301250 (7 L stainless steel drum)
10302023 (45 L stainless steel drum)
10311587 (200 L stainless steel drum)

65743 tert.-Butyl Methyl Ether GC, for gas chromatography

assay (GC)	min.	99.7 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
peroxides (as H ₂ O ₂)	max.	0.0005 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301316** (1 L glass bottle)
10301318 (2,5 L glass bottle)
10301319 (7 L stainless steel drum)
10302038 (45 L stainless steel drum)

65771 tert.-Butyl methyl ether for spectroscopy

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
peroxides (as H ₂ O ₂)	max.	0.0005 %
transmittance at 215 nm	min.	40 %
transmittance at 230 nm	min.	50 %
transmittance at 250 nm	min.	80 %
transmittance from 280 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10311122** (1 L glass bottle)

65959 tert.-Butylmethylether dried(max. 0,0075 % H₂O), for analysis

assay (GC)	min.	99 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.0075 %
free acid (as CH ₃ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %

Order No.: **10315596** (1 L glass bottle)
10315597 (2,5 L glass bottle)

boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.000005 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000005 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
tert.-butylmethylketon	max.	0.005 %
peroxides (as H ₂ O ₂)	max.	0.00003 %
S-compounds (as S)	max.	0.00005 %

65810 tert.-Butyl methyl ether for analysis

assay (GC)	min.	99 %
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.000005 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000005 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
iso-butylmethylketone	max.	0.005 %
carbonyl compound (as CO)	max.	0.001 %
peroxides (as H ₂ O ₂)	max.	0.00003 %
S-compounds (as S)	max.	0.00006 %


Order No.: **10304727** (2,5 L glass bottle)
10311428 (25 L steel drum)
10305354 (195 L metal drum)

65963 tert.-Butyl methyl ether pure

assay (GC)	min.	99 %
refractive index (n _{20/D})		1.368-1.370
peroxides (as H ₂ O ₂)	max.	0.005 %

Order No.: **10315621** (1 L glass bottle)
10315622 (2,5 L glass bottle)


Calcium Chloride

CaCl ₂	Signal word: Warning	
M = 110.98 g/mol	Precautionary statements (prevention): P281	
CAS [10043-52-4]	Precautionary statements (reaction): P305 + P351 +	
EC number 2331408	P338, P308 + P313	
Density: ca. 2,150 g/cm ³		
Kp: ca. 1.900 °C		

65914 Calcium chloride pure, granulated

assay (complexometric)	min.	95 %	Order No.: 10314752 (1 KG HDPE-bottle)
iron (Fe)	max.	0.002 %	

Calcium Chloride-2-hydrate

CaCl ₂ x 2H ₂ O	Signal word: Warning	
M = 147.01 g/mol	Precautionary statements (prevention): P281	
CAS [10035-04-8]	Precautionary statements (reaction): P305 + P351 +	
EC number 2331408	P338, P308 + P313	
Kp: ca. 1.900 °C		

66121 Calcium chloride-2-hydrate for analysis, Reag. ACS, Reag. Ph. Eur.

assay	min.	99 %	Order No.: 10316121 (1 KG HDPE-bottle)
pH (5 %, 25 °C)		4.5-8.5	
water insoluble matter	max.	0.01 %	
acidity or alkalinity		complying	
ammonium (NH ₄)	max.	0.005 %	
aluminium (Al)	max.	0.0001 %	
arsenic (As)	max.	0.0001 %	
barium (Ba)	max.	0.005 %	
cadmium (Cd)	max.	0.0005 %	
copper (Cu)	max.	0.0005 %	
iron (Fe)	max.	0.0005 %	
potassium (K)	max.	0.005 %	
magnesium (Mg)	max.	0.005 %	
sodium (Na)	max.	0.005 %	
lead (Pb)	max.	0.0005 %	
strontium (Sr)	max.	0.01 %	
zinc (Zn)	max.	0.0005 %	
heavy metals (as Pb)	max.	0.0005 %	
Mg and alkali salts (SO ₄)	max.	0.5 %	
nitrate (NO ₃)	max.	0.002 %	
sulfate (SO ₄)	max.	0.005 %	
oxidizing subst. (as NO ₃)	max.	0.003 %	
appearance of the solution		complying	

Cesium Chloride

ClCs	Precautionary statements (prevention): P281
M = 168.36 g/mol	
CAS [7647-17-8]	
EC number 2316002	
Density: ca. 3,98 g/cm ³	
Kp: 1.300 °C	

66116 Cesium chloride for analysis

assay	min.	99.5 %
barium (Ba)	max.	0.002 %
calcium (Ca)	max.	0.002 %
copper (Cu)	max.	0.0002 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.002 %
magnesium (Mg)	max.	0.0005 %
sodium (Na)	max.	0.002 %
lead (Pb)	max.	0.0001 %
rubidium (Rb)	max.	0.005 %
zinc (Zn)	max.	0.0002 %
sulfate (SO ₄)	max.	0.005 %
total N	max.	0.001 %

Order No.: **10315948** (0,100 KG HDPE-bottle)

Chlorobenzene Monochlorbenzene, Benzene chloride, Phenyl chloride

C ₆ H ₅ Cl	Signal word: Warning
M = 112.56 g/mol	Precautionary statements (prevention): P210, P260, P273, P281
CAS [108-90-7]	Precautionary statements (reaction): P304 + P340, P308 + P313
EC number 2036285	
Density: 1,107 - 1,109 g/cm ³	
Kp: 130 - 132 °C	
F: 28 °C	



65532 Chlorobenzene

assay (GC)	min.	99 %
water (Karl Fischer)	max.	0.05 %
free acid (as HCl)	max.	0.01 %
benzene (GC)	max.	0.08 %
zed)		

Order No.: **10315465** (1 L glass bottle)
10310988 (2,5 L glass bottle)
10310989 (25 L steel drum)
10286120 (220 KG metal drum vani-
zed)

1-Chlorobutane

C ₄ H ₉ Cl	Signal word: Danger
M = 92.57 g/mol	Precautionary statements (prevention): P210, P281
CAS [109-69-3]	
EC number 2036966	
Density: 0,886 - 0,888 g/cm ³	
Kp: 77 - 80 °C	
F: -9 °C	



65774 1-Chlorobutane B&J Brand, for liquid chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0003 meq/g
alkalinity	max.	0.0001 meq/g
transmittance at 230 nm	min.	65 %
transmittance at 240 nm	min.	95 %
transmittance from 250 nm	min.	98 %

Order No.: **10304128** (2,5 L glass bottle)**Citric acid-1-hydrate** Hydroxytricarballic acidC₆H₈O₇ x H₂O

M = 210.14 g/mol

CAS [5949-29-1]

EC number 2010691

Density: ca. 1,51 g/cm³**Signal word:** Warning**Precautionary statements (prevention):** P281**Precautionary statements (reaction):** P305 + P351 +

P338, P308 + P313

**66112 Citric acid-1-hydrate for analysis, buffer substance, Reag. ACS, Reag. ISO, Reag. Ph. Eur**

assay		99.5-102 %
assay (calc.on the anhydrous basis)		99.5-100.5 %
water insoluble matter	max.	0.005 %
water (Karl Fischer)		7.5-9.0 %
sulfated ash	max.	0.01 %
aluminium (Al)	max.	0.00002 %
calcium (Ca)	max.	0.005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0003 %
lead (Pb)	max.	0.0002 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0002 %
chloride (Cl)	max.	0.0005 %
oxalate (C ₂ O ₄)	max.	0.005 %
phosphate (PO ₄)	max.	0.001 %
sulfate (SO ₄)	max.	0.002 %
reaction against H ₂ SO ₄		complying
appearance of the solution		complying

Order No.: **10315888** (0,500 KG HDPE-bottle)**10315886** (1 KG HDPE-bottle)**10315889** (2,5 KG HDPE-bottle)**Cobalt(II) chloride-6-hydrate**Cl₂Co x 6H₂O

M = 237.93 g/mol

CAS [7791-13-1]

EC number 2315894

Density: ca. 1,9 g/cm³**Signal word:** Danger**Precautionary statements (prevention):** P260, P281**Precautionary statements (reaction):** P301 + P330, P302

+ P352, P304 + P340, P308 + P313

**66106 Cobalt(II) chloride-6-hydrate for analysis, Reag. ACS, Reag. Ph.Eur.**

assay		99-102 %
water insoluble matter	max.	0.01 %
calcium (Ca)	max.	0.005 %
iron (Fe)	max.	0.005 %
potassium (K)	max.	0.005 %

Order No.: **10315868** (0,100 KG HDPE-bottle)

copper (Cu)	max.	0.002 %
magnesium (Mg)	max.	0.001 %
manganese (Mn)	max.	0.005 %
sodium (Na)	max.	0.01 %
nickel (Ni)	max.	0.05 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.005 %
nitrate (NO ₃)	max.	0.01 %
sulfate (SO ₄)	max.	0.005 %

Copper(II) chloride-2-hydrate

Cl₂Cu x 2H₂O
M = 170.48 g/mol
CAS [10125-13-0]
EC number 2312102
Density: ca. 2,53 g/cm³

Signal word: Warning

Precautionary statements (prevention): P281

Precautionary statements (reaction): P301 + P330, P302
+ P352, P304 + P340, P305 + P351 + P338



65901 Copper(II) chloride-2-hydrate for analysis

assay (complexometric)	min.	99 %
pH (5 %, 20°C)		3.0-3.8
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.002 %
iron (Fe)	max.	0.001 %
potassium (K)	max.	0.002 %
magnesium (Mg)	max.	0.002 %
sodium (Na)	max.	0.002 %
nickel (Ni)	max.	0.001 %
lead (Pb)	max.	0.004 %
sulfate (SO ₄)	max.	0.005 %
total N	max.	0.004 %

Order No.: **10314661** (0,500 KG HDPE-bottle)

Copper(II) sulfate-5-hydrate

CuO₄S x 5H₂O
M = 249.69 g/mol
CAS [7758-99-8]
EC number 2318476
Density: 2,280 g/cm³

Signal word: Warning

Precautionary statements (prevention): P273, P281

Precautionary statements (reaction): P301 + P330, P302
+ P352, P305 + P351 + P338, P308 + P313



66135 Copper(II) sulfate-5-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay		99-102 %
water insoluble matter	max.	0.005 %
pH (5 %, 20°C)		3.7-4.5
arsenic (As)	max.	0.00005 %
calcium (Ca)	max.	0.001 %
cadmium (Cd)	max.	0.001 %
cobalt (Co)	max.	0.001 %
iron (Fe)	max.	0.002 %
potassium (K)	max.	0.001 %
magnesium (Mg)	max.	0.0005 %
sodium (Na)	max.	0.002 %
nickel (Ni)	max.	0.002 %

Order No.: **10319011** (1 KG HDPE-bottle)

lead (Pb)	max.	0.002 %
zinc (Zn)	max.	0.001 %
chloride (Cl)	max.	0.001 %
total N	max.	0.001 %

Cyclohexane Hexahydrobenzene, Naphtene, Hexamethylene

C ₆ H ₁₂	Signal word: Danger
M = 84.16 g/mol	Precautionary statements (prevention): P210, P260, P281
CAS [110-82-7]	Precautionary statements (reaction): P301 + P330 + P331, P302 + P352, P304 + P340, P308 + P313
EC number 2038062	
Density: 0,778 - 0,779 g/cm ³	
Kp: 79 - 81 °C	
F: -18 °C	



65713 Cyclohexane B&J Brand, for liquid chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 220 nm	min.	55 %
transmittance at 230 nm	min.	80 %
transmittance at 235 nm	min.	90 %
transmittance from 255 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301133** (1 L glass bottle)
10299648 (2,5 L glass bottle)
10301215 (7 L stainless steel drum)
10301982 (45 L stainless steel drum)

65832 Cyclohexan GC Plus, für die Analytik von Pestiziden, Dioxinen, Furanen und PCBs

assay (GC)	min.	99.5 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l
Suit.f.GC-MS of dioxines,furanes,PCP		complying

Order No.: **10313915** (2,5 L glass bottle)
10313916 (7 L stainless steel drum)
10315851 (18 L stainless steel drum)
10313917 (200 L stainless steel drum)

65712 Cyclohexan GC, für die Gaschromatographie

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.005 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301132** (1 L glass bottle)
10299730 (2,5 L glass bottle)
10300369 (7 L stainless steel drum)
10319586 (18 L stainless steel drum)

65711 Cyclohexane for spectroscopy, ACS, Reag. Ph. Eur.

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0003 meq/g
alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying

Order No.: **10299728** (1 L glass bottle)
10301109 (2,5 L glass bottle)
10301214 (7 L stainless steel drum)
10301980 (45 L stainless steel drum)

transmittance at 210 nm	min.	30 %
transmittance at 220 nm	min.	55 %
transmittance at 225 nm	min.	70 %
transmittance at 230 nm	min.	80 %
transmittance at 240 nm	min.	94 %
transmittance from 250 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
APHA	max.	10
reaction against H ₂ SO ₄		complying

65793 Cyclohexane for analysis, Reag. ACS

appearance		complying
assay (GC)	min.	99.5 %
solidification range		5.5-6.5 °C
boiling range		79-81 °C
density (D 20/4)		0.778-0.779
refractive index (n 20/D)		1.4250-1.4280
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as HCl)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
aromatic substances (as C ₆ H ₆)	max.	0.05 %
cyclohexene (C ₆ H ₁₀)	max.	0.05 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10304342** (2,5 L glass bottle)
10311196 (25 L steel drum)
10304343 (200 L metal drum)

65778 Cyclohexane extra pure

assay (GC)	min.	99.5 %
non-volatile matter	max.	0.0015 %
water (Karl Fischer)	max.	0.02 %
free acid (as HCl)	max.	0.001 %

Order No.: **10304236** (2,5 L glass bottle)
10311064 (25 L steel drum)
10304241 (200 L metal drum)

Cyclohexanone Pimelic ketone

C₆H₁₀O

M = 98.14 g/mol

CAS [108-94-1]

EC number 2036311

Density: ca. 0,94 g/cm³

Kp: 155 - 156 °C

F: 43 °C

Signal word: Warning

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P304 + P340, P308 +

P313



65956 Cyclohexanone extra pure

assay (GC)	min.	99.5 %
water (Karl Fischer)	max.	0.2 %

Order No.: **10315555** (1 L glass bottle)
10315556 (2,5 L glass bottle)

1,2-Dichlorobenzene o-Chlorobenzene

C₁₀H₄Cl₂

M = 147 g/mol

CAS [95-50-1]

EC number 2024259

Density: 1,3 g/cm³

Kp: 180 °C

F: 66 °C

Signal word: Warning

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P301 + P330 +
P331, P302 + P352, P304 + P340, P305 + P351 + P338



65954 1,2-Dichlorobenzene for extraction analysis, Reag. Ph. Eur.

assay (GC)	min.	99 %
boiling range		178-180 °C
density (D 20/4)		1.305-1.307
refractive index (n 20/D)		1.5510-1.5520
water (Karl Fischer)	max.	0.01 %
sulfated ash	max.	0.001 %
free acid (as HCl)	max.	0.001 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0001 %
chloride (Cl)	max.	0.0001 %

Order No.: **10315532** (1 L glass bottle)

Dichromate-sulfuric acid → Chromosulfuric acid

Dichloromethane Methylene chloride

CH₂Cl₂

M = 84.93 g/mol

CAS [75-09-2]

EC number 2008389

Density: 1,324 - 1,325 g/cm³

Kp: 39 - 41 °C

Signal word: Warning

Precautionary statements (prevention): P201, P281

Precautionary statements (reaction): P308 + P313



65716 Dichloromethane B&J Brand, ACS, for liquid chromatography, stabilized

appearance		complying
assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
free chlorine		complying
transmittance at 235 nm	min.	40 %
transmittance at 240 nm	min.	75 %
transmittance at 245 nm	min.	90 %
transmittance from 260 nm	min.	99 %
absorbance		complying
APHA	max.	10

Order No.: **10301135** (1 L glass bottle)
10299895 (2,5 L glass bottle)
10301222 (7 L stainless steel drum)
10301984 (45 L stainless steel drum)
10311002 (200 L stainless steel drum)

65831 Dichloromethane GC Plus, for analysis of pesticides, dioxines, furanes and PCBs, stabilized

assay (GC)	min.	99.8 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.02 %
suitability for residue analysis	max.	5 ng/l
Suit.f.GC-MS of dioxines,furanes,PCP		complying

Order No.: **10313912** (2,5 L glass bottle)
10313913 (7 L stainless steel drum)
10313914 (200 L stainless steel drum)

65741 Dichloromethane GC, for gas chromatography, stabilized

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301307** (1 L glass bottle)
10301308 (2,5 L glass bottle)
10301309 (7 L stainless steel drum)
10302036 (45 L stainless steel drum)

65715 Dichloromethane for spectroscopy, stabilized

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0003 meq/g
alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 230 nm	min.	5 %
transmittance at 235 nm	min.	30 %
transmittance at 240 nm	min.	75 %
transmittance at 250 nm	min.	95 %
transmittance from 255 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301134** (1 L glass bottle)
10299897 (2,5 L glass bottle)
10301221 (7 L stainless steel drum)
10301983 (45 L stainless steel drum)

65714 Dichloromethane dried (max. 0,001 % H₂O), for analysis, Reag. ACS, Reag. ISO, stabilized

appearance of the substance		complying
assay (GC)	min.	99.8 %
boiling range		39.5-40.5 °C
density (D 20/4)		1.324-1.326
refractive index (n 20/D)		1.4235-1.4245
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.001 %
free acid (as HCl)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
free chlorine (Cl)	max.	0.00002 %
chloride (Cl)	max.	0.00005 %
formaldehyde	max.	0.0005 %
tetrachloromethane (GC)	max.	0.01 %
trichloromethane (GC)	max.	0.01 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10300370** (1 L glass bottle)
10299752 (2,5 L glass bottle)
10301216 (7 L stainless steel drum)
10300381 (45 L stainless steel drum)
10304956 (200 L stainless steel drum)

65763 Dichloromethane for analysis, Reag. ACS, Reag. ISO, stabilized

assay (GC)	min.	99.9 %
boiling range		39.5-40.5 °C
density (D 20/4)		1.324-1.326
refractive index (n 20/D)		1.4235-1.4245
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as HCl)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
potassium (K)	max.	0.00005 %
lithium (Li)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
molybdenum (Mo)	max.	0.00001 %

Order No.: **10314130** (1 L glass bottle)
10304046 (2,5 L glass bottle)
10324360 (5 L ALU-bottle)
10311054 (25 L steel drum)
10304048 (195 L metal drum)

sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
free chlorine (Cl)	max.	0.00002 %
chloride (Cl)	max.	0.00005 %
ethanol (GC)	max.	0.05 %
formaldehyde	max.	0.0005 %
tetrachloromethane (GC)	max.	0.01 %
trichloromethane (GC)	max.	0.01 %
reaction against H ₂ SO ₄		complying
APHA	max.	10
appearance of the substance		complying

65794 Dichloromethane extra pure, meets analytical specification of Ph. Eur., stabilized

assay (GC)	min.	99 %
density (D 20/4)		1.322-1.326
refractive index (n 20/D)		1.423-1.425
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.02 %
free acid (as HCl)	max.	0.001 %
heavy metals (as Pb)	max.	0.0001 %
free chlorine (Cl)	max.	0.0001 %
chloride (Cl)	max.	0.0003 %
reaction against H ₂ SO ₄		complying
related subst. (GC)	max.	0.1 %
ethanol (GC)	max.	2.0 Vol. %
methanol (GC)	max.	0.02 Vol. %
tetrachlorocarbon (GC)	max.	0.01 Vol. %
CHCl ₃ (GC)	max.	0.01 Vol. %
residual solvents		complying
appearance of the substance		complying

Order No.: **10304344** (2,5 L glass bottle)
10311197 (25 L steel drum)
10304345 (200 L metal drum varnized)

1,4-Diethylene dioxide → 1,4-Dioxan
N,N-Diethylethanamine → Triethylamine

Diethyl ether Ethyl ether, Ethyl oxide, Ether

C ₄ H ₁₀ O	Signal word: Danger
M = 74.12 g/mol	Supplemental: EUH019, EUH066
CAS [60-29-7]	Precautionary statements (prevention): P210, P260, P281
EC number 2004672	Precautionary statements (reaction): P301 + P330 + P331, P304 + P340, P308 + P313
Density: 0,713 - 0,714 g/cm ³	
Kp: 34 - 35 °C	
F: -40 °C	



65756 Diethyl ether for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur., stabilized

assay (GC)	min.	99.5 %
boiling range		34-35 °C
density (D 20/4)		0.713-0.714
non-volatile matter	max.	0.001 %

Order No.: **10303894** (1 L glass bottle)
10303898 (2,5 L glass bottle)
10315081 (5 L ALU-bottle)
10311034 (25 L steel drum)

water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.0002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.000005 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000005 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
acetone (GC)	max.	0.005 %
aldehydes		complying
carbonyl compounds (as CO)	max.	0.001 %
ethanol (GC)	max.	0.02 %
methanol (GC)	max.	0.02 %
peroxides (as H ₂ O ₂)	max.	0.00003 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

65772 Diethyl ether dried (max. 0,0075 % H₂O), for analysis, Reag. ACS, stabilized

assay (GC)	min.	99.8 %
boiling range		34-35 °C
density (D 20/4)		0.713-0.714
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.0075 %
free acid (as CH ₃ COOH)	max.	0.0002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.000005 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000005 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.000005 %
acetone (GC)	max.	0.005 %
aldehydes		complying
carbonyl compounds (as CO)	max.	0.001 %
ethanol (GC)	max.	0.02 %
methanol (GC)	max.	0.02 %
peroxides (as H ₂ O ₂)	max.	0.00003 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10304099** (2,5 L glass bottle)

65786 Diethyl ether extra pure, meets analytical specification of Ph. Eur., BP, stabilized with 2,6-Di-tert.-butyl-4-methylphenol (ca. 5 mg/l)

assay (GC)	min.	99.5 %
boiling range		34-35 °C
density (D 20/20)		0.714-0.716
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.002 %
aldehydes		complying
peroxides (as H ₂ O ₂)	max.	0.0002 %
acidly reacting impurities		complying
residual solvents		complying

Order No.: **10314131** (1 L glass bottle)
10304311 (2,5 L glass bottle)
10581755 (5 L ALU-bottle)
10311138 (25 L steel drum)
10304312 (195 L metal drum varnized)

Diethylmethane → n-Pentane

2,3-Dihydroxybutanedioic acid → L(+)-Tartaric acid

Di-iso-propyl ether Isopropyl ether, 2,2' Oxybispropane, 2,2 Propoxypropane

C ₆ H ₁₄ O	Signal word: Danger
M = 102.18 g/mol	Supplemental: EUH019, EUH066
CAS [108-20-3]	Precautionary statements (prevention): P210, P260, P281
EC number 2035606	Precautionary statements (reaction): P304 + P340, P308 + P313
Density: 0,723 - 0,726 g/cm ³	
Kp: 66 - 69 °C	
F: -36 °C	



65764 Di-iso-propyl ether for analysis, stabilized

assay (GC)	min.	99 %
boiling range		66-69 °C
density (D 20/4)		0.723-0.726
refractive index (n 20/D)		1.3660-1.3700
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as C ₂ H ₅ COOH)	max.	0.05 %
aluminium (Al)	max.	0.00005 %
barium (Ba)	max.	0.00001 %
lead (Pb)	max.	0.00001 %
boron (B)	max.	0.000002 %
cadmium (Cd)	max.	0.000005 %
calcium (Ca)	max.	0.00005 %
chromium (Cr)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
cobalt (Co)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
zinc (Zn)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
peroxides (as H ₂ O ₂)	max.	0.001 %

Order No.: **10316126** (1 L glass bottle)
10304050 (2,5 L glass bottle)
10304051 (200 L metal drum)

N,N-Dimethylacetamide Acetic acid dimethylamide

C₄N₉NO

M = 87.12 g/mol

CAS [127-19-5]

EC number 2048264

Density: 0,940 g/cm³

Kp: 164 - 166 °C

F: 70 °C

Signal word: Danger

Precautionary statements (prevention): P201, P260, P281

Precautionary statements (reaction): P302 + P352, P304 + P340, P308 + P313



65819 N,N-Dimethylacetamide pure

assay (GC) min. 99 % Order No.: **10306459** (2,5 L glass bottle)

Dimethyl benzene → Xylene

1,2-Dimethyl benzene → o-Xylene

N,N-Dimethylformamide DMF, Formic acid dimethylamide

C₃H₇NO

M = 73.09 g/mol

CAS [68-12-2]

EC number 2006795

Density: 0,948 - 0,950 g/cm³

Kp: 152 °C

F: 58 °C

Signal word: Danger

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P302 + P352, P304 + P340, P305 + P351 + P338, P308 + P313



65822 N,N-Dimethylformamide GC, for gas chromatography

assay (GC) min. 99.8 % Order No.: **10313277** (1 L glass bottle)
water (Karl Fischer) max. 0.08 % **10313331** (2,5 L glass bottle)
non-volatile matter max. 0.001 %
suitability for residue analysis max. 5 ng/l

65996 N,N-Dimethylformamide for spectroscopy, Reag.ACS

assay (GC) min. 99.9 % Order No.: **10315835** (1 L glass bottle)
water (Karl Fischer) max. 0.05 % **10315836** (2,5 L glass bottle)
non-volatile matter max. 0.001 %
suitability for IR spectroscopy complying
suitability for UV spectroscopy complying
transmittance at 270 nm min. 20 %
transmittance at 280 nm min. 70 %
transmittance at 300 nm min. 90 %
transmittance at 310 nm min. 89.2 %
transmittance from 330 nm min. 98 %
fluorescence (chinin) at 254 nm max. 1 ppb
fluorescence (chinin) at 365 nm max. 1 ppb

65818 N,N-Dimethylformamide for analysis, Reag. ACS, Reag. Ph. Eur.

assay (GC)	min.	99.8 %
boiling range		152-154 °C
density (D 20/4)		0.948-0.950
refractive index (n 20/D)		1.4290-1.4310
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.003 %
free alkali (as NH ₃)	max.	0.005 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
potassium (K)	max.	0.00005 %
lithium (Li)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
molybdenum (Mo)	max.	0.00001 %
sodium (Na)	max.	0.0001 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
APHA	max.	15

Order No.: **10314797** (1 L glass bottle)
10314802 (2,5 L glass bottle)
10314803 (25 L steel drum)
10305294 (200 L metal drum)

65869 N,N-Dimethylformamide pure

assay (GC)	min.	99 %
water (Karl Fischer)	max.	0.1 %

Order No.: **10314208** (1 L HDPE-bottle)
10315367 (2,5 L HDPE-bottle)

Dimethyl ketone → Acetone
1,3-Dimethylpropane → n-Pentane

Dimethyl sulfoxide DMSO

C₂H₆OS **Precautionary statements (prevention):** P281
CAS [67-68-5]
EC number 2006643
Density: 1,100 - 1,103 g/cm³
Kp: 189 - 191 °C
F: 85 °C

65911 Dimethyl sulfoxide dried (max. 0,03 % H₂O), for analysis

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.03 %
free acid (as H ₂ SO ₄)	max.	0.001 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0001 %

Order No.: **10315312** (1 L glass bottle)
10314736 (2,5 L glass bottle)

66132 Dimethyl sulfoxide pure

IR spectrum		complying
assay (GC)	min.	99.5 %

Order No.: **10316838** (1 L HDPE-bottle)
10316839 (2,5 L HDPE-bottle)

1,4-Dioxane cyclohexane → 1,4-Dioxane**1,4-Dioxane** Glycoethylether, 1,4-Diethylene dioxide, 1,4-Dioxane cyclohexaneC₄H₈O₂

M = 88.11 g/mol

CAS [123-91-1]

EC number 2046618

Density: 1,031 - 1,034 g/cm³

Kp: 100 - 102 °C

F: 11 °C

Signal word: Danger**Supplemental:** EUH019, EUH066**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P304 + P340, P305 + P351 + P338, P308 + P313**65791 1,4-Dioxane for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur., stabilized**

assay (GC)	min.	99.5 %
congealing - freezing point	min.	11 °C
boiling range		100-102 °C
density (D 20/4)		1.031-1.034
refractive index (n 20/D)		1.4210-1.4240
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
free acid (as CH ₃ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
acetaldehyde	max.	0.005 %
carbonyl compounds (as HCHO)	max.	0.01 %
peroxides (as H ₂ O ₂)	max.	0.005 %
APHA	max.	10

Order No.: **10314203** (1 L glass bottle)
10304318 (2,5 L glass bottle)
10324442 (5 L ALU-bottle)
10311195 (25 L steel drum)
10313782 (210 KG metal drum)

65790 1,4-Dioxan extra pure, stabilized

assay (GC)	min.	99.5 %
refractive index (n _{20/D})		1.421-1.424
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.005 %
peroxides (as H ₂ O ₂)	max.	0.005 %

Order No.: **10311194** (1 L glass bottle)
10304316 (2,5 L glass bottle)
10304317 (200 L metal drum)

n-Dipropylmethane → n-Heptane

Disodium dihydrogenethylene diaminetetraacetate → Ethylenediaminetetraacetic acid

DMF → N,N-Dimethylformamide

DMSO → Dimethyl sulfoxide

Ethanol

Ethyl alcohol, Methylcarbinol

C₄H₆O

M = 46.07 g/mol

CAS [64-17-5]

EC number 2005786

Density: 0,790 - 0,791 g/cm³

Kp: 78 - 79 °C

F: 12 °C

Signal word: Danger

Precautionary statements (prevention): P210, P281

**65718 Ethanol absolute gradient grade B&J Brand, for liquid chromatography**

assay (GC)	min.	99.9 Vol. %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 210 nm	min.	30 %
transmittance at 225 nm	min.	60 %
transmittance at 240 nm	min.	80 %
transmittance from 260 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301138** (1 L glass bottle)
10299901 (2,5 L glass bottle)
10301224 (7 L stainless steel drum)
10301917 (45 L stainless steel drum)
10319773 (200 L stainless steel drum)

65767 Ethanol absolute, for spectroscopy

assay (GC)	min.	99.9 Vol. %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 210 nm	min.	30 %
transmittance at 220 nm	min.	55 %
transmittance at 230 nm	min.	75 %
transmittance at 240 nm	min.	85 %
transmittance from 260 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10311057** (1 L glass bottle)
10304061 (2,5 L glass bottle)

65813 Ethanol absolute for analysis, Reag. ISO, Reag. Ph. Eur.

appearance		complying
assay (GC)	min.	99.8 Vol. %
boiling range		78-79 °C
density (D 20/20)		0.790-0.791
refractive index (n 20/D)		1.3614-1.3618
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.0005 %
free alkali (as NH ₃)	max.	0.0001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
heavy metals (as Pb)	max.	0.0001 %
acetone (GC)	max.	0.001 %
aldehydes (as CH ₃ CHO)	max.	0.001 %
iso-amyl alcohol (GC)	max.	0.05 %
carbonyl compounds (as CO)	max.	0.003 %
furfural		complying
methanol (GC)	max.	0.02 %
2-propanol (GC)	max.	0.003 %
higher alcohols (GC)	max.	0.01 %
volatile impurities (GC)		complying
KMnO ₄ red. matter (as O)	max.	0.0003 %
reaction against H ₂ SO ₄		complying
UV-absorption		complying
APHA	max.	10

Order No.: **10311273** (1 L glass bottle)
10304749 (2,5 L glass bottle)
10315651 (5 L HDPE-bottle)
10311430 (25 L steel drum)
10304750 (200 L metal drum varnized)

65943 Ethanol absolute, extra pure, not for production purpose

assay (GC)	min.	99.8 Vol. %
density (D 20/20)		0.790-0.791
non-volatile matter	max.	0.01 %
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.001 %
free alkali (as NH ₃)	max.	0.0005 %
aldehydes (as CH ₃ CHO)	max.	0.005 %
methanol (GC)	max.	0.1 %

Order No.: **10315441** (2,5 L HDPE-bottle)

65838 Ethanol absolute, denaturated with methylethylketone

assay (GC)	min.	98 Vol. %
methyl ethyl ketone (GC)		0.5-1.5 Vol. %
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.002 %
identity		complying

Order No.: **10313904** (1 L HDPE-bottle)
10313905 (2,5 L HDPE-bottle)
10314924 (25 L steel drum)
10313906 (200 L metal drum)

65787 Ethanol 96 Vol.% extra pure, meets analytical specification of Ph. Eur., BP

appearance		complying
identity A		complying
identity B		complying
boiling range		78-79 °C
density (D 20/20)		0.805-0.812
water (Karl Fischer)		4.8-7.4 %
non-volatile matter	max.	0.001 %
acidity or alkalinity		complying
methanol (GC)	max.	0.02 %
volatile impurities (GC)		complying
residual solvents		complying
UV-absorption		complying

Order No.: **10311139** (1 L glass bottle)
10304321 (2,5 L glass bottle)
10311140 (25 L steel drum)
10304323 (200 L metal drumvanized)

65719 Ethanol absolute gradient grade B&J Brand, for liquid chromatography (EXPORT)

assay (GC)	min.	99.9 Vol. %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 210 nm	min.	30 %
transmittance at 225 nm	min.	60 %
transmittance at 240 nm	min.	80 %
transmittance from 260 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301139** (1 L glass bottle)
10299984 (2,5 L glass bottle)
10301225 (7 L stainless steel drum)
10302012 (45 L stainless steel drum)
10586369 (190 L SST drum, 0.5 bar)
10319828 (200 L stainless steel drum)
10323192 (1000 L stainless steel IBC)

65789 Ethanol absolute, for spectroscopy (Export)

assay (GC)	min.	99.9 Vol. %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 210 nm	min.	30 %
transmittance at 220 nm	min.	55 %
transmittance at 230 nm	min.	75 %
transmittance at 240 nm	min.	85 %
transmittance from 260 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10311193** (1 L glass bottle)
10304332 (200 L stainless steel drum)

65758 Ethanol absolute for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur. (EXPORT)

appearance		complying
identity A		complying
identity B		complying
assay (GC)	min.	99.8 Vol. %
boiling range		78-79 °C
density (D 20/20)		0.790-0.791
refractive index (n 20/D)		1.3614-1.3618
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.0005 %
free alkali (as NH ₃)	max.	0.0001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
heavy metals (as Pb)	max.	0.0001 %
acetone (GC)	max.	0.001 %
aldehydes (as CH ₃ CHO)	max.	0.001 %
iso-amyl alcohol (GC)	max.	0.05 %
carbonyl compounds (as CO)	max.	0.003 %
furfural		complying
methanol (GC)	max.	0.02 %
2-propanol (GC)	max.	0.003 %
acetone and 2-propanol acc.to ACS		complying
higher alcohols (GC)	max.	0.01 %
volatile impurities (GC)		complying
KMnO ₄ red. matter (as O)	max.	0.0003 %
reaction against H ₂ SO ₄		complying
UV-absorption		complying
APHA	max.	10
solubility in water		complying

Order No.: **10311036** (1 L glass bottle)
10303990 (2,5 L glass bottle)
10311037 (25 L steel drum)
10304001 (200 L metal drum varnized)

65953 Ethanol absolute extra pure, meets analytical specification of Ph. Eur., BP, USP (Export)

appearance		complying
identity A		complying
identity B		complying
assay (GC)	min.	99.8 Vol. %
density (D 20/20)		0.790-0.791
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.2 %
free acid (as CH ₃ COOH)	max.	0.0005 %
free alkali (as NH ₃)	max.	0.0001 %
aldehydes (as CH ₃ CHO)	max.	0.001 %

Order No.: **10315408** (1 L HDPE-bottle)
10315409 (2,5 L HDPE-bottle)
10315410 (25 L steel drum)
10315451 (200 L metal drum)

volatile impurities (GC)		complying
acetone (GC)	max.	0.001 %
iso-amyl alcohol (GC)	max.	0.05 %
methanol (GC)	max.	0.02 %
2-propanol (GC)	max.	0.003 %
higher alcohols (GC)	max.	0.01 %
UV-absorption		complying
APHA	max.	10
turbidity	max.	1 NTU

65795 Ethanol 96 vol.%, for analysis, Reag. ACS, Reag. Ph. Eur. (Export)

appearance		complying
identity A		complying
identity B		complying
boiling range		78-79 °C
density (D 20/20)		0.805-0.812
non-volatile matter	max.	0.001 %
free acid (as CH ₃ COOH)	max.	0.003 %
free alkali (as NH ₃)	max.	0.0001 %
cadmium (Cd)	max.	0.00001 %
copper (Cu)	max.	0.00001 %
iron (Fe)	max.	0.00001 %
nickel (Ni)	max.	0.00001 %
lead (Pb)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
heavy metals (as Pb)	max.	0.0001 %
KMNO ₄ red. matter		complying
acetone (GC)	max.	0.001 %
aldehydes (as CH ₃ CHO)	max.	0.0005 %
formaldehyde	max.	0.0005 %
methanol (GC)	max.	0.01 %
2-propanol (GC)	max.	0.003 %
volatile impurities (GC)		complying
reaction against H ₂ SO ₄		complying
mixable with H ₂ O		complying
UV-absorption		complying
APHA	max.	10

Order No.: **10315366** (1 L HDPE-bottle)
10304346 (2,5 L HDPE-bottle)
10315375 (25 L steel drum)
10304347 (200 L metal drum varnized)

65788 Ethanol 96 Vol.% extra pure, meets analytical specification of Ph. Eur., BP (Export)

appearance		complying
identity A		complying
identity B		complying
boiling range		78-79 °C
density (D 20/20)		0.805-0.812
water (Karl Fischer)		4.8-7.4 %
non-volatile matter	max.	0.001 %
acidity or alkalinity		complying
methanol (GC)	max.	0.02 %
volatile impurities (GC)		complying
residual solvents		complying
UV-absorption		complying

Order No.: **10311191** (1 L glass bottle)
10304324 (2,5 L glass bottle)
10311192 (25 L steel drum)
10323194 (190 L SST drum, 0.5 bar)
10304325 (200 L metal drum varnized)

Ethyl acetate Acetic acid ethyl ester, Acetic etherC₄H₈O₂

M = 88.1 g/mol

CAS [141-78-6]

EC number 2055004

Density: 0,898 g/cm³

Kp: 76 - 77 °C

F: -4 °C

Signal word: Danger**Supplemental:** EUH066**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P304 + P340, P305 +

P351 + P338, P308 + P313

**65775 Ethyl acetate B&J Brand, LC-MS, for liquid chromatography**

assay (GC)	min.	99.90 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0008 meq/g
alkalinity	max.	0.0002 meq/g
calcium (Ca)	max.	0.00001 %
potassium (K)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
sodium (Na)	max.	0.00001 %
transmittance at 260 nm	min.	75 %
transmittance from 300 nm	min.	99 %

Order No.: **10306548** (1 L glass bottle)
10304130 (2,5 L glass bottle)**65717 Ethyl acetate B&J Brand, for liquid chromatography**

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0008 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 255 nm	min.	25 %
transmittance at 260 nm	min.	75 %
transmittance at 270 nm	min.	95 %
transmittance from 300 nm	min.	98 %

Order No.: **10301136** (1 L glass bottle)
10299899 (2,5 L glass bottle)
10301223 (7 L stainless steel drum)
10301916 (45 L stainless steel drum)
10311003 (200 L stainless steel drum)
10323720 (1000 L stainless steel IBC)**65759 Ethyl acetate GC, for gas chromatography**

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10311039** (1 L glass bottle)
10304003 (2,5 L glass bottle)
10311040 (7 L stainless steel drum)
10315841 (18 L stainless steel drum)**65812 Ethyl acetate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.**

assay (GC)	min.	99.5 %
boiling range		76-78 °C
density (D 20/4)		0.899-0.901
refractive index (n 20/D)		1.3710-1.3730
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
free acid (as CH ₃ COOH)	max.	0.0045 %
aluminium (Al)	max.	0.00005 %

Order No.: **10314137** (1 L glass bottle)
10304729 (2,5 L glass bottle)
10311429 (25 L steel drum)
10311272 (200 L metal drum)

boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
potassium (K)	max.	0.00005 %
lithium (Li)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
molybdenum (Mo)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
methyl acetate	max.	0.1 %
ethanol (GC)	max.	0.1 %
isobutylalkohol (GC)	max.	0.1 %
methanol (GC)	max.	0.1 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

65755 Ethyl acetate extra pure, meets analytical specification of Ph. Eur., BP, NF (Ethylacetate)

identity (IR)		complying
assay (GC)	min.	99.5 %
density (D 20/4)		0.898-0.900
density (D 25/25)		0.894-0.898
refractive index (n 20/D)		1.371-1.373
non-volatile matter	max.	0.003 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.005 %
ethanol (GC)	max.	0.1 %
methyl.comp.(as acetic a.meth.ester)	max.	0.01 %
reaction against H ₂ SO ₄		complying
related subst. (GC)	max.	0.2 %
chromatographic purity		complying
organic volatile impurities (GC)		complying
residual solvents		complying
appearance of the solution		complying

Order No.: **10303882** (1 L glass bottle)
10303884 (2,5 L glass bottle)
10303886 (5 L HDPE-bottle)
10311030 (25 L steel drum)
10303887 (200 L metal drum)

Ethyl carbinol → 1-Propanol

Ethylenediaminetetraacetic acid EDTA

C₁₀H₁₆N₂O₈
M = 292.24 g/mol
CAS [60-00-4]
EC number 2004494

65931 Ethylenediaminetetraacetic acid pure

assay (complexometric)	min.	98 %
loss on drying (105°C)	max.	0.2 %
sulfated ash	max.	0.5 %
pH (saturated aqueous solution, 20°C)		2.8-3.1
iron (Fe)	max.	0.005 %
lead (Pb)	max.	0.001 %
heavy metals (as Pb)	max.	0.005 %
nitrilotriacetic acid (NTA) (HPLC)	max.	0.1 %
chloride (Cl)	max.	0.02 %
sulfate (SO ₄)	max.	0.05 %

Order No.: **10314982** (1 KG HDPE-bottle)**Ethylenediaminetetraacetic acid di-sodium salt-2-hydrate** Disodium dihydrogen ethylenediaminetetraacetic acid di-sodium salt-2-hydrateC₁₀H₁₄N₂Na₂O₈ × 2H₂O

M = 372.24 g/mol

CAS [6381-92-6]

EC number 2053583

66120 Ethylenediaminetetraacetic acid di-sodium salt-2-hydrate extra pure, meets analytical specification of Ph. Eur., BP, USP, FCC

identity (IR)		complying
assay		99.0-101.0 %
loss on drying (200°C, 3h)		8.7-11.4 %
pH (1 %, 25°C)		4.3-4.7
pH (5 %, 20°C)		04.Mai
arsenic (As)	max.	0.0001 %
calcium (Ca)		complying
iron (Fe)	max.	0.001 %
lead (Pb)	max.	0.001 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.01 %
cyanide (CN)	max.	0.001 %
sulfate (SO ₄)	max.	0.05 %
nitrilotriacetic acid (HPLC)	max.	0.1 %
residual solvents		complying
appearance of the solution		complying

Order No.: **10316120** (1 KG HDPE-bottle)**Ethylene glycol**C₂H₆O₂

M = 76.09 g/mol

CAS [107-21-1]

EC number 2037137

Density: 1,113 - 1,114 g/cm³

Kp: 195 - 197 °C

F: 111 °C

Signal word: Warning**Precautionary statements (prevention):** P281**Precautionary statements (reaction):** P301 + P330 + P331, P308 + P313

65933 Ethylene glycol for analysis, Reag. Ph. Eur.

assay (GC)	min.	99.5 %
boiling range		195-197 °C
density (D 20/4)		1.113-1.114
refractive index (n 20/D)		1.4300-1.4330
water (Karl Fischer)	max.	0.1 %
sulfated ash	max.	0.005 %
free acid (as CH ₃ COOH)	max.	0.001 %
iron (Fe)	max.	0.00002 %
chloride (Cl)	max.	0.00002 %
formaldehyde	max.	0.005 %
KMnO ₄ red. matter (as O)	max.	0.0003 %
reaction against H ₂ SO ₄		complying

Order No.: **10315012** (1 L HDPE-bottle)
10316127 (30 KG plastic drum)

Ethyleneglycol-monophenylether → 2-Phenoxyethanol

Ethylene trichloride → Trichloroethene

Ethyl ether → Diethyl ether

Ethyl methyl ketone → 2-Butanone

Ethyl oxide → Diethylether

Formaldehyde solution Formaline

CH₂O

M = 30.03 g/mol

CAS [50-00-0]

EC number 200018

Density: 1,080 - 1,090 g/cm³

Kp: 93 - 96 °C

F: 56 °C

65994 Formaldehyde solution min. 36,5 %, for analysis, Reag. ACS, stabilized with appr. 10 % methanol

assay	min.	36.5 %
density (D 20/4)		1.080-1.090
sulfated ash	max.	0.005 %
free acid (as HCOOH)	max.	0.025 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0002 %
chloride (Cl)	max.	0.0001 %
sulfate (SO ₄)	max.	0.002 %
APHA	max.	10

Order No.: **10315824** (1 L HDPE-bottle)
10315825 (2,5 L HDPE-bottle)

Formaline → Formaldehyde solution

Formamide Formic acid amide, Methane amide

CH₃NO

M = 45.04 g/mol

CAS [75-12-7]

EC number 2008420

Density: ca. 1,133 g/cm³

Kp: 210 °C

F: 175 °C

Signal word: Danger

Precautionary statements (prevention): P201, P281

Precautionary statements (reaction): P308 + P313



65876 Formamide for analysis

assay (GC)	min.	99 %
solidification range		01.Mrz °C
water (Karl Fischer)	max.	0.5 %
sulfated ash	max.	0.005 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0001 %
chloride (Cl)	max.	0.0001 %

Order No.: **10314255** (1 L glass bottle)
10315378 (2,5 L glass bottle)

Formic acid amide → Formamide

Formic acid dimethylamide → N.N-Dimethyl formamide

D(+)-Glucose monohydrate

$C_6H_{12}O_6 \times H_2O$

Precautionary statements (prevention): P281

M = 198.17 g/mol

CAS [14431-43-7]

EC number 2000751

Density: ca. 1,54 g/cm³

66119 D(+)-Glucose monohydrate extra pure, meets analytical specification of Ph. Eur., BP

sp.rot.c=10inH ₂ O,calc.to anhydr.subs		+52.5-+53.3 °
water (Karl Fischer)		07.09.2005 %
sulfated ash	max.	0.1 %
acid. or alk. react. impurities		complying
aluminium (Al)	max.	0.00005 %
arsenic (As)	max.	0.0001 %
barium (Ba)		complying
calcium (Ca)	max.	0.02 %
lead (Pb)	max.	0.00005 %
chloride (Cl)	max.	0.01 %
sulfate (SO ₄)	max.	0.02 %
sulfite (as SO ₂)	max.	0.001 %
foreign sugars,soluble starch,dextrin		complying
residual solvents		complying
appearance of the solution		complying

Order No.: **10316113** (1 KG HDPE-bottle)

Glycerol 1,2,3-Propanetriol

$C_3H_8O_3$

M = 92.09 g/mol

CAS [56-81-5]

EC number 2002895

Density: 1,224 - 1,230 g/cm³

Kp: 290 °C

F: 160 °C

66127 Glycerol 86-88 %, for analysis, Reag. ISO, Reag. Ph. Eur.

assay	min.	86 %
assay (calc.on the anhydrous basis)	min.	99 %
density (D 20/20)		1.224-1.230
refractive index (n 20/D)		1.4520-1.4550
water (Karl Fischer)		Dez.14 %
sulfated ash	max.	0.005 %
free acid (as CH ₃ COOH)	max.	0.002 %
acidity or alkalinity		complying
free alkali (as NH ₃)	max.	0.0005 %
ammonium (NH ₄)	max.	0.0005 %
arsenic (As)	max.	0.00005 %
iron (Fe)	max.	0.00005 %
heavy metals (as Pb)	max.	0.0001 %
chloride (Cl)	max.	0.0001 %
sulfate (SO ₄)	max.	0.0005 %
halogene compounds (as Cl)	max.	0.003 %
reaction against H ₂ SO ₄		complying
aldehydes		complying
ester		complying
fatty acid ester	max.	0.05 %
other organic compounds	max.	0.005 %
reducing matter	max.	0.003 %
sugar		complying
impurity A + related subst. (GC)		complying
appearance of the solution		complying
APHA	max.	10

Order No.: **10316136** (1 L HDPE-bottle)**65921 Glycerol 99 %, extra pure, meets analytical specification of Ph. Eur., BP, USP, FCC, E 422**

identity (IR)		complying
assay (alkalimetric)		99.0-101.0 %
assay (calc.on the anhydrous basis)		99.0-101.0 %
density (D 20/20)		1.2580-1.2644
density (D 25/25)	min.	1.257
refractive index (n 20/D)		1.471-1.474
water (Karl Fischer)	max.	2 %
sulfated ash	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.003 %
acid. or alk. react. impurities		complying
arsenic (As)	max.	0.0001 %
cadmium (Cd)	max.	0.0001 %
copper (Cu)	max.	0.001 %
mercury (Hg)	max.	0.0001 %
lead (Pb)	max.	0.0001 %
zinc (Zn)	max.	0.001 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
sulfate (SO ₄)	max.	0.001 %
halogene compounds (as Cl)	max.	0.003 %
reaction against H ₂ SO ₄		complying
1,2,4-butantrirole (GC)	max.	0.2 %
aldehydes		complying
acrolein, glucose + HH ₄ -compounds		complying
ester		complying
fatty acids and ester		complying

Order No.: **10314830** (1 L HDPE-bottle)

sugar	complying
impurity A + related subst. (GC)	complying
chromatographic purity	complying
organic volatile impurities (GC)	complying
residual solvents	complying
colour	complying
appearance of the solution	complying

n-Heptane n-Dipropylmethane, n-Heptylhydride, 1-Methyl hexane

C ₇ H ₁₆	Signal word: Danger
M = 100.2 g/mol	Precautionary statements (prevention): P210, P260, P281
CAS [142-82-5]	Precautionary statements (reaction): P301 + P330 + P331, P302 + P352, P304 + P340, P308 + P313
EC number 2055638	
Density: 0,683 - 0,685 g/cm ³	
Kp: 96 - 99 °C	
F: -1 °C	



65728 n-Heptane B&J Brand, for liquid chromatography

assay (GC)	min.	99.0 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 200 nm	min.	20 %
transmittance at 210 nm	min.	50 %
transmittance at 220 nm	min.	80 %
transmittance from 245 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301157** (1 L glass bottle)
10300047 (2,5 L glass bottle)
10301245 (7 L stainless steel drum)
10301932 (45 L stainless steel drum)
10311032 (200 L stainless steel drum)
10321137 (195 L SST drum, 0.5 bar)

65836 n-Heptane GC, for gas chromatography

assay (GC)	min.	99 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l
determination of P/N	max.	5 ng/l

Order No.: **10313928** (1 L glass bottle)
10313929 (2,5 L glass bottle)
10313930 (7 L stainless steel drum)
10313931 (45 L stainless steel drum)
10313932 (200 L stainless steel drum)

65770 n-Heptane for spectroscopy

assay (GC)	min.	99.5 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 210 nm	min.	60 %
transmittance at 220 nm	min.	85 %
transmittance at 230 nm	min.	90 %
transmittance from 245 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10311121** (1 L glass bottle)

65796 n-Heptane for analysis, Reag. Ph. Eur.

assay (GC)	min.	99 %
boiling range		97-98 °C
density (D 20/4)		0.683-0.685
refractive index (n 20/D)		1.3870-1.3880
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.0005 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
S-compounds (as S)	max.	0.005 %
reaction against H ₂ SO ₄		complying

Order No.: **10314833** (1 L glass bottle)
10304349 (2,5 L glass bottle)
10311198 (25 L steel drum)
10304957 (200 L metal drum)

65781 n-Heptane extra pure

assay (GC)	min.	99 %
non-volatile matter	max.	0.0015 %
water (Karl Fischer)	max.	0.02 %
free acid (as CH ₃ COOH)	max.	0.001 %

Order No.: **10304280** (2,5 L glass bottle)
10311069 (25 L steel drum)
10311067 (200 L metal drum)

n-Heptylhydride → n-Heptane
Hexahydrobenzene → Cyclohexane
Hexamethylene → Cyclohexane

Hexamethylenetetramine Urotropin

C₆H₁₂ N₄
M = 140.19 g/mol
CAS [100-97-0]
EC number 2029058
Density: ca. 1,33 g/cm³
F: 250 °C

Signal word: Warning

Precautionary statements (prevention): P210, P261, P281

Precautionary statements (reaction): P302 + P352, P308 + P313



65905 Hexamethylenetetramine for analysis, Reag. Ph. Eur.

assay (calc. to the dried substance)	min.	99.5 %
sulfated ash	max.	0.01 %
pH (10 %, 20°C)		8.5-9.5
ammonium (NH ₄)	max.	0.01 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.002 %
sulfate (SO ₄)	max.	0.005 %

Order No.: **10314689** (0,100 KG HDPE-bottle)**n-Hexane** n-Caproylhydride, n-HexylhydrideC₆H₁₄

M = 86.18 g/mol

CAS [110-54-3]

EC number 2037776

Density: 0,660 - 0,668 g/cm³

Kp: 66 - 69 °C

F: -23 °C

Signal word: Danger**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P301 + P330 + P331, P302 + P352, P304 + P340, P308 + P313**65730 n-Hexane B&J Brand, for liquid chromatography**

assay (GC)	min.	97 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 200 nm	min.	30 %
transmittance at 225 nm	min.	90 %
transmittance from 250 nm	min.	99 %

Order No.: **10300071** (1 L glass bottle)**10300072** (2,5 L glass bottle)**10301247** (7 L stainless steel drum)**10301935** (45 L stainless steel drum)**10301936** (200 L stainless steel drum)**65829 n-Hexane GC Plus, for analysis of pesticides, dioxines, furanes and PCBs**

assay (GC)	min.	95 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l
determination of P/N	max.	5 ng/l
Suit.f.GC-MS of dioxines,furanes,PCP		complying

Order No.: **10313896** (2,5 L glass bottle)**10313897** (7 L stainless steel drum)**10313898** (200 L stainless steel drum)**65747 n-Hexane GC, for gas chromatography**

assay (GC)	min.	95.0 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10303206** (1 L glass bottle)**10303207** (2,5 L glass bottle)**10311026** (7 L stainless steel drum)**10303209** (45 L stainless steel drum)**65769 n-Hexane for spectroscopy**

assay (GC)	min.	97 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0001 meq/g

Order No.: **10309665** (1 L glass bottle)

alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 210 nm	min.	60 %
transmittance at 220 nm	min.	80 %
transmittance at 235 nm	min.	95 %
transmittance from 245 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

65729 n-Hexane dried (max. 0,001% H₂O), for analysis, ACS, Reag. Ph. Eur.

assay (GC)	min.	99 %
boiling range		68-69 °C
boiling range 67-69 °C	min.	95 %
density (D 20/4)		0.658-0.662
density (D 20/20)		0.659-0.663
refractive index (n 20/D)		1.3745-1.3755
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.001 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
aromatic substances (as C ₆ H ₆)	max.	0.01 %
S-compounds (as S)	max.	0.005 %
thiophene	max.	0.0001 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10300049** (1 L glass bottle)
10301158 (2,5 L glass bottle)
10301246 (7 L stainless steel drum)
10301934 (45 L stainless steel drum)

65801 n-Hexane for analysis, Reag. ACS, Reag. Ph. Eur.

assay (GC)	min.	99 %
boiling range		68-69 °C
boiling range 67-69 °C	min.	95 %
density (D 20/4)		0.658-0.662
density (D 20/20)		0.659-0.663
refractive index (n 20/D)		1.3745-1.3755
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %

Order No.: **10315059** (1 L glass bottle)
10304419 (2,5 L glass bottle)
10311425 (25 L steel drum)
10308719 (200 L metal drum)

calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
aromatic substances (as C ₆ H ₆)	max.	0.01 %
S-compounds (as S)	max.	0.005 %
thiophene	max.	0.0001 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

65802 n-Hexane 96 % for analysis, Reag. ACS

assay (GC) sum of isomers	min.	98.5 %
n-Hexane (GC)	min.	96 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
aromatic substances (as C ₆ H ₆)	max.	0.01 %
S-compounds (as S)	max.	0.005 %
thiophene	max.	0.0001 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10314834** (1 L glass bottle)
10304420 (2,5 L glass bottle)
10311223 (200 L metal drum)

65780 n-Hexane extra pure

assay (GC)	min.	95 %
density (D 20/4)		0.658-0.662
non-volatile matter	max.	0.0015 %
water (Karl Fischer)	max.	0.02 %
free acid (as CH ₃ COOH)	max.	0.001 %

Order No.: **10304279** (2,5 L glass bottle)
10311066 (25 L steel drum)
10309490 (200 L metal drum)

iso-Hexane

C₆H₁₄

M = 86.18 g/mol

CAS [64742-49-0]

EC number 2955702

Density: 0,655 g/cm³

Kp: 60 °C

F: -32 °C

65720 iso-Hexane B&J Brand, for liquid chromatography

assay of isomers (GC)	min.	85 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 200 nm	min.	20 %
transmittance at 220 nm	min.	85 %
transmittance from 245 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	0.5 ppb
fluorescence (chinin) at 365 nm	max.	0.5 ppb

Order No.: **10301140** (1 L glass bottle)
10299986 (2,5 L glass bottle)
10301226 (7 L stainless steel drum)
10301918 (45 L stainless steel drum)

65824 iso-Hexane GC, for gas chromatography

assay of isomers (GC)	min.	85 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10313434** (1 L glass bottle)
10313436 (2,5 L glass bottle)
10313438 (200 L stainless steel drum)

65779 iso-Hexane extra pure

assay of isomers (GC)	min.	85 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
non-volatile matter	max.	0.002 %
aromatic substances (as C ₆ H ₆) (GC)	max.	0.01 %
S-compounds (as S)	max.	0.005 %

Order No.: **10304244** (2,5 L glass bottle)
10311065 (25 L steel drum)
10304247 (195 L metal drum vanized)

Hydrazinium sulfate

NH₂NH₂ H₂SO₄

M = 130.12 g/mol

CAS [10034-93-2]

EC number 2331104

Density: ca. 1,37 g/cm³

Signal word: Danger

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P301 + P330, P302
+ P352, P304 + P340, P308 + P313



65919 Hydrazinium sulfate for analysis, Reag. ACS

assay (iodometric)	min.	99 %
residue on ignition (SO ₄)	max.	0.05 %
water insoluble matter	max.	0.005 %

Order No.: **10314746** (0,100 KG HDPE-bottle)
10314748 (0,250 KG HDPE-bottle)
10314747 (1 KG HDPE-bottle)

iron (Fe)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %

Hydrochloric acid

HCl	Signal word: Danger
M = 36.46 g/mol	Precautionary statements (prevention): P260, P281
CAS [7647-01-0]	Precautionary statements (reaction): P301 + P330 +
EC number 2315957	P331, P302 + P352, P304 + P340, P305 + P351 + P338
Density: ca. 1,190 g/cm ³	
Kp: ca. 42 °C	



65874 Hydrochloric acid min. 37 %, for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	37 %
residue on ignition (SO ₄)	max.	0.0005 %
non-volatile matter	max.	0.005 %
ammonium (NH ₄)	max.	0.0001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000002 %
beryllium (Be)	max.	0.000002 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00002 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
heavy metals (as Pb)	max.	0.0001 %
free chlorine (Cl)	max.	0.00005 %
bromide (Br)	max.	0.005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.0001 %
sulfite (SO ₃)	max.	0.0001 %
appearance of the solution		complying
appearance of the substance		complying
APHA	max.	10
extractable organic substances	max.	0.0005 %
residual solvents		complying

Order No.: **10315085** (1 L glass bottle)
10314253 (2,5 L HDPE-bottle)

65977 Hydrochloric acid min. 37 %, for analysis, for determ. of mercury, Reag. ISO, Reag. Ph. Eur.

assay	min.	37 %
residue on ignition (SO ₄)	max.	0.0005 %
non-volatile matter	max.	0.005 %
ammonium (NH ₄)	max.	0.0001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000002 %
beryllium (Be)	max.	0.000002 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00002 %
germanium (Ge)	max.	0.000005 %
mercury (Hg)	max.	0.0000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
bromide (Br)	max.	0.005 %
free chlorine (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.0001 %
sulfite (SO ₃)	max.	0.0001 %

Order No.: **10315743** (0,500 L HDPE-bottle)
10315741 (2,5 L HDPE-bottle)**65978 Hydrochloric acid min. 32 %, for analysis**

assay	min.	32 %
residue on ignition (SO ₄)	max.	0.0005 %
ammonium (NH ₄)	max.	0.0001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000002 %
beryllium (Be)	max.	0.000002 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00002 %
germanium (Ge)	max.	0.000005 %

Order No.: **10315745** (1 L HDPE-bottle)
10315746 (2,5 L HDPE-bottle)

potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
bromide (Br)	max.	0.005 %
free chlorine (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.0001 %
sulfite (SO ₃)	max.	0.0001 %

65974 Hydrochloric acid 30 %,for analysis

assay	min.	30 %
residue on ignition (SO ₄)	max.	3 ppm
ammonium (NH ₄)	max.	0.5 ppm
silver (Ag)	max.	0.01 ppm
aluminium (Al)	max.	0.01 ppm
arsenic, antimony (as As)	max.	0.01 ppm
gold (Au)	max.	0.01 ppm
barium (Ba)	max.	0.01 ppm
beryllium (Be)	max.	0.01 ppm
bismuth (Bi)	max.	0.01 ppm
calcium (Ca)	max.	0.01 ppm
cadmium (Cd)	max.	0.01 ppm
cobalt (Co)	max.	0.01 ppm
chromium (Cr)	max.	0.01 ppm
copper (Cu)	max.	0.01 ppm
iron (Fe)	max.	0.01 ppm
gallium (Ga)	max.	0.01 ppm
germanium (Ge)	max.	0.01 ppm
indium (In)	max.	0.01 ppm
potassium (K)	max.	0.01 ppm
lithium (Li)	max.	0.01 ppm
magnesium (Mg)	max.	0.01 ppm
manganese (Mn)	max.	0.01 ppm
molybdenum (Mo)	max.	0.01 ppm
sodium (Na)	max.	0.01 ppm
nickel (Ni)	max.	0.01 ppm
lead (Pb)	max.	0.01 ppm
platinum (Pt)	max.	0.01 ppm
tin (Sn)	max.	0.01 ppm
strontium (Sr)	max.	0.01 ppm
titanium (Ti)	max.	0.01 ppm
thallium (Tl)	max.	0.01 ppm
vanadium (V)	max.	0.01 ppm
zinc (Zn)	max.	0.01 ppm

Order No.: **10315738** (1 L HDPE-bottle)

zirconium (Zr)	max.	0.01 ppm
phosphate (PO ₄)	max.	0.05 ppm
sulfate (SO ₄)	max.	0.5 ppm
sulfite (SO ₃)	max.	1 ppm

65938 Hydrochloric acid min. 25 %, for analysis

assay	min.	25 %
residue on ignition (SO ₄)	max.	0.0005 %
ammonium (NH ₄)	max.	0.0001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000002 %
beryllium (Be)	max.	0.000002 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00002 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
bromide (Br)	max.	0.005 %
free chlorine (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.0001 %
sulfite (SO ₃)	max.	0.0001 %
residual solvents		complying

Order No.: **10315018** (1 L HDPE-bottle)
10315019 (2,5 L HDPE-bottle)
10315792 (5 L HDPE-bottle)

65985 Hydrochloric acid 2,0 mol/l, volumetric solution

factor	1.000+-0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315793** (1 L HDPE-bottle)

65908 Hydrochloric acid 1 mol/l, volumetric solution Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10314716** (1 L HDPE-bottle)**65882 Hydrochloric acid 0,1 mol/l, volumetric solution, Reag. Ph.Eur.**

factor	1.000 ± 0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10314271** (1 L HDPE-bottle)
10315853 (5 L HDPE-bottle)**65880 Hydrochloric acid 0.5 mol/l, volumetric solution Reag. Ph. Eur.**

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315265** (1 L HDPE-bottle)
10314259 (10 L FIBREBOARD BOX)**Hydrogen peroxide**

H₂O₂
M = 34.01 g/mol
CAS [7722-84-1]
EC number 2317650
Density: ca. 1,110 g/cm³

65875 Hydrogen peroxide 30 % by weight, for analysis, Reag. ISO, Reag.Ph. Eur., stabilized

assay	min.	30 %
non-volatile matter	max.	0.005 %
residue on ignition	max.	0.002 %
free acid (as H ₂ SO ₄)	max.	0.005 %
aluminium (Al)	max.	0.00005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000005 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00002 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.000005 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.000005 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00001 %
nickel (Ni)	max.	0.000002 %

Order No.: **10315891** (0,500 L HDPE-bottle)
10314254 (1 L HDPE-bottle)

lead (Pb)	max.	0.000001 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.0001 %
sulfate (SO ₄)	max.	0.0001 %
total N	max.	0.0002 %

65889 Hydrogen peroxide 30 %, extra pure, meets analytical specification of Ph.Eur., BP, USP, stabilized dipicolinic acid 40 mg/l

assay		30-31 %
non-volatile matter	max.	0.02 %
free acid (as H ₂ SO ₄)		0.0025-0.025 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.005 %
organic stabilisers	max.	0.05 %
acidly reacting impurities		complying
residual solvents		complying

Order No.: **10314596** (1 L HDPE-bottle)

1-Hydroxypropane → 1-Propanol

2-Hydroxypropane → 2-Propanol

Hydroxytricarballic acid → Citric acid-1-hydrate

Magnesium acetate-4-hydrate

C₄H₆MgO₄ × 4H₂O

M = 214.45 g/mol

CAS [16674-78-5]

EC number 2055549

Density: ca. 1,450 g/cm³

Precautionary statements (prevention): P281

65929 Magnesium acetate-4-hydrate for analysis, Reag. ACS

assay		99.5-102 %
insoluble in acetic acid	max.	0.005 %
pH (5 %, 20°C)		08.Sep
barium (Ba)	max.	0.001 %
calcium (Ca)	max.	0.01 %
cadmium (Cd)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.001 %
manganese (Mn)	max.	0.001 %
sodium (Na)	max.	0.001 %
lead (Pb)	max.	0.0005 %
strontium (Sr)	max.	0.001 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
sulfate (SO ₄)	max.	0.005 %

Order No.: **10314950** (0,100 KG HDPE-bottle)

Magnesium chloride-6-hydrate

$\text{Cl}_2\text{Mg} \times 6\text{H}_2\text{O}$

M = 203.3 g/mol

CAS [7791-18-6]

EC number 2320946

Precautionary statements (prevention): P281

Density: ca. 1,570 g/cm³

66123 Magnesium chloride-6-hydrate for analysis, Reag. ACS, Reag. ISO

assay	min.	99 %	Order No.: 10316123 (1 KG HDPE-bottle)
pH (5 %, 20°C)		05.06.2005	
ammonium (NH ₄)	max.	0.001 %	
barium (Ba)	max.	0.002 %	
calcium (Ca)	max.	0.01 %	
copper (Cu)	max.	0.0005 %	
iron (Fe)	max.	0.0005 %	
potassium (K)	max.	0.001 %	
manganese (Mn)	max.	0.0005 %	
sodium (Na)	max.	0.001 %	
strontium (Sr)	max.	0.002 %	
zinc (Zn)	max.	0.001 %	
heavy metals (as Pb)	max.	0.0005 %	
nitrate (NO ₃)	max.	0.001 %	
phosphate (PO ₄)	max.	0.0005 %	
sulfate (SO ₄)	max.	0.002 %	
water insoluble matter	max.	0.005 %	

Magnesium sulfate-7-hydrate

$\text{MgO}_4\text{S} \times 7\text{H}_2\text{O}$

Precautionary statements (prevention): P281

M = 246.47 g/mol

CAS [10034-99-8]

EC number 2312998

Density: ca. 1,68 g/cm³

65922 Magnesium sulfate-7-hydrate extra pure, meets analytical specification of Ph. Eur., BP, USP, FCC

assay (calc. to the dried substance)	99.5-100.5 %	Order No.: 10314903 (1 KG HDPE-bottle)
loss on drying (450°C)	48-52 %	10315892 (2,5 KG HDPE-bottle)
pH (5 %, 25 °C)	5.0-9.2	10315893 (5 KG HDPE-bottle)
free acid (as H ₂ SO ₄)	max. 0.01 %	
free alkali (as MgO)	max. 0.004 %	
acidity or alkalinity	complying	
arsenic (As)	max. 0.0002 %	
iron (Fe)	max. 0.002 %	
lead (Pb)	max. 0.0004 %	
selenium (Se)	max. 0.003 %	
heavy metals (as Pb)	max. 0.001 %	
chloride (Cl)	max. 0.01 %	
organic volatile impurities (GC)	complying	
residual solvents	complying	
appearance of the solution	complying	

Methanol Methyl alcohol, Carbinol, Methynol, Wood alcoholCH₄O

M = 32.04 g/mol

CAS [67-56-1]

EC number 2006596

Density: 0,790 - 0,792 g/cm³

Kp: 64 - 65 °C

F: 11 °C

Signal word: Danger**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P301 + P330 + P331,
P302 + P352, P304 + P340, P308 + P313**65726 Methanol B&J Brand LC-MS, for liquid chromatography**

		effektive P/ml
particles > 0,5 µm		
assay (GC)	min.	99.95 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
silver (Ag)	max.	0.1 ppm
aluminium (Al)	max.	0.5 ppm
barium (Ba)	max.	0.1 ppm
calcium (Ca)	max.	0.1 ppm
cadmium (Cd)	max.	0.05 ppm
cobalt (Co)	max.	0.02 ppm
chromium (Cr)	max.	0.02 ppm
copper (Cu)	max.	0.01 ppm
iron (Fe)	max.	0.1 ppm
potassium (K)	max.	0.1 ppm
magnesium (Mg)	max.	0.1 ppm
manganese (Mn)	max.	0.01 ppm
sodium (Na)	max.	0.1 ppm
nickel (Ni)	max.	0.02 ppm
lead (Pb)	max.	0.02 ppm
tin (Sn)	max.	0.1 ppm
zinc (Zn)	max.	0.1 ppm
transmittance at 210 nm	min.	30 %
transmittance at 220 nm	min.	60 %
transmittance at 230 nm	min.	75 %
transmittance from 260 nm	min.	98 %
HPLC-gradient at 254 nm	max.	5 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
suitability for the LC-MS		complying

Order No.: **10300016** (1 L glass bottle)
10299300 (2,5 L glass bottle)
10301233 (7 L stainless steel drum)
10301900 (45 L stainless steel drum)

65727 Methanol gradient grade B&J Brand, ACS, for liquid chromatography

		complying
appearance		
assay (GC)	min.	99.95 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
acetaldehyde	max.	0.001 %
acetone (GC)	max.	0.001 %
formaldehyde	max.	0.001 %

Order No.: **10301156** (1 L glass bottle)
10299333 (2,5 L glass bottle)
10301234 (7 L stainless steel drum)
10301931 (45 L stainless steel drum)
10311004 (200 L stainless steel drum)
10302211 (1380 L stainless steel IBC)

KMnO ₄ red. matter (as O)		complying
reaction against H ₂ SO ₄		complying
mixable with H ₂ O		complying
transmittance at 210 nm	min.	35 %
transmittance at 220 nm	min.	60 %
transmittance at 235 nm	min.	85 %
transmittance from 260 nm	min.	98 %
absorbance		complying
HPLC-gradient at 230 nm	max.	2 mAU
HPLC-gradient at 254 nm	max.	2 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
APHA	max.	10

65725 Methanol B&J Brand, for liquid chromatography

assay (GC)	min.	99.9 %
boiling range		64-65 °C
density (D 20/20)		0.791-0.793
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 210 nm	min.	30 %
transmittance at 220 nm	min.	55 %
transmittance at 230 nm	min.	75 %
transmittance at 235 nm	min.	80 %
transmittance at 250 nm	min.	95 %
transmittance from 260 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
appearance		complying

Order No.: **10301155** (1 L glass bottle)
10300019 (2,5 L glass bottle)
10301232 (7 L stainless steel drum)
10301923 (45 L stainless steel drum)
10586370 (190 L SST drum, 0.5 bar)
10301231 (200 L stainless steel drum)
10321789 (1000 L stainless steel IBC)

65833 Methanol GC Plus, for analysis of pesticides, dioxines, furanes and PCBs

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
suitability for residue analysis	max.	5 ng/l
Suit.f.GC-MS of dioxines,furanes,PCP		complying

Order No.: **10313918** (2,5 L glass bottle)
10313919 (7 L stainless steel drum)
10313920 (200 L stainless steel drum)

65740 Methanol GC, for gas chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301304** (1 L glass bottle)
10301305 (2,5 L glass bottle)
10301306 (7 L stainless steel drum)
10302034 (45 L stainless steel drum)

65724 Methanol for scpectroscopy

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0002 meq/g

Order No.: **10301152** (1 L glass bottle)
10300015 (2,5 L glass bottle)
10301230 (7 L stainless steel drum)
10301922 (45 L stainless steel drum)

alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 210 nm	min.	30 %
transmittance at 220 nm	min.	60 %
transmittance at 230 nm	min.	80 %
transmittance at 240 nm	min.	90 %
transmittance at 250 nm	min.	95 %
transmittance from 260 nm	min.	98 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

65723 Methanol dried (max. 0,005 % H₂O), for analysis, Reag. Ph. Eur.

assay (GC)	min.	99.9 %
boiling range		64-65 °C
density (D 20/4)		0.791-0.793
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.005 %
free acid (as HCOOH)	max.	0.002 %
free alkali (as NH ₃)	max.	0.00005 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
chloride (Cl)	max.	0.00005 %
sulfate (SO ₄)	max.	0.0001 %
KMnO ₄ red. matter (as O)	max.	0.00025 %
acetone (GC)	max.	0.001 %
acetaldehyde (GC)	max.	0.001 %
ethanol (GC)	max.	0.1 %
formaldehyde	max.	0.0001 %

Order No.: **10300012** (1 L glass bottle)
10300013 (2,5 L glass bottle)
10301229 (7 L stainless steel drum)
10301921 (45 L stainless steel drum)

65757 Methanol for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.8 %
boiling range		64-65 °C
density (D 20/20)		0.791-0.793
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
free acid (as HCOOH)	max.	0.002 %
free alkali (as NH ₃)	max.	0.00005 %
aluminium (Al)	max.	0.00005 %

Order No.: **10314129** (1 L glass bottle)
10303987 (2,5 L glass bottle)
10587512 (5L HDPE-bottle)
10311035 (25 L steel drum)
10303988 (190 L steel/PE drum)

boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
lithium (Li)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.00001 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
chloride (Cl)	max.	0.00005 %
sulfate (SO ₄)	max.	0.0001 %
KMnO ₄ red. matter (as O)	max.	0.00025 %
acetone (GC)	max.	0.001 %
acetaldehyde	max.	0.001 %
ethanol (GC)	max.	0.1 %
formaldehyde	max.	0.0001 %
carbonyl compounds (as CO)	max.	0.005 %
mixable with H ₂ O		complying
reaction against H ₂ SO ₄		complying
APHA		10
appearance		complying

65805 Methanol free of acetone, extra pure, meets analytical Specification of Ph. Eur.

assay (GC)	min.	99.7 %
boiling range		64-65 °C
density (D 20/20)		0.791-0.793
refractive index (n 20/D)		1.328-1.330
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
free acid (as HCOOH)	max.	0.003 %
acidity or alkalinity		complying
iron (Fe)	max.	0.0001 %
chloride (Cl)	max.	0.0001 %
sulfate (SO ₄)	max.	0.0005 %
acetone (GC)	max.	0.001 %
reaction against H ₂ SO ₄		complying
reducing impurities		complying
identity (IR)		complying
UV-absorption		complying
impurity A (GC)		complying
related subst. (GC)		complying
appearance		complying
residual solvents		complying

Order No.: **10304426** (2,5 L glass bottle)
10311426 (25 L steel drum)
10311224 (200 L metal drum)

2-Methoxyethanol → Ethylene glycol

Methyl-iso-butyl ketone 4-Methyl-2-pentanone

C₆H₁₂O

M = 100.16 g/mol

CAS [108-10-1]

EC number 2035501

Density: ca. 0,8 g/cm³

Kp: 115 - 117 °C

F: 14 °C

Signal word: Danger

Supplemental: EUH066

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P304 + P340, P305 +

P351 + P338, P308 + P313



65820 Methyl-iso-butyl ketone

assay (GC)	min.	99 %
boiling range		115-117 °C
refractive index (n 20/D)		1.395-1.397

Order No.: **10309266** (50 L steel/PE drum)
10309315 (200 L metal drum)

4-Methyl-2-pentanone → Methyl-iso-butyl ketone

1-Methyl-2-pyrrolidone NMP

C₅H₉NO

M = 99.13 g/mol

CAS [872-50-4]

EC number 2128281

Density: 1,032 - 1,033 g/cm³

Kp: 202 - 205 °C

F: 97 °C

Signal word: Danger

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P302 + P352, P304

+ P340, P305 + P351 + P338, P308 + P313



65957 N-Methyl-2-pyrrolidone pure

assay (GC)	min.	99.5 %
water (Karl Fischer)	max.	0.05 %
APHA	max.	50

Order No.: **10315557** (1 L HDPE-bottle)

Methyl tert-butyl ether → tert.-Butyl methyl ether

Methynol → Methanol

Nitric acid

HNO₃

M = 63.01 g/mol

CAS [7697-37-2]

EC number 2317142

Density: ca. 1,420 g/cm³

Kp: 122 °C

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P301 + P330 + P331,

P302 + P352, P304 + P340, P305 + P351 + P338



65975 Nitric acid min. 69 %, for analysis, Reag. ACS, Reag. ISO

assay	min.	69 %
residue on ignition (SO ₄)	max.	0.0005 %
silver (Ag)	max.	0.000001 %

Order No.: **10315739** (1 L glass bottle)
10586429 (2,5 L glass bottle)

aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000001 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00001 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000001 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
heavy metals (as Pb)	max.	0.00002 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.00005 %
APHA	max.	10

65976 Nitric acid min. 65 %, for Analysis, for determination of mercury, Reag. ISO, Reag. Ph. Eur.

assay	min.	65 %
residue on ignition (SO ₄)	max.	0.0005 %
silver (Ag)	max.	0.000001 %
arsenic (As)	max.	0.000001 %
aluminium (Al)	max.	0.000005 %
barium (Ba)	max.	0.000001 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00001 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
germanium (Ge)	max.	0.000005 %
mercury (Hg)	max.	0.0000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %

Order No.: **10315740** (1 L glass bottle)

lead (Pb)	max.	0.000001 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.00005 %

65873 Nitric acid min. 65 %, for analysis, Reag. ISO, Reag. Ph. Eur. for determination with dithizone

assay	min.	65 %
residue on ignition (SO ₄)	max.	0.0005 %
silver (Ag)	max.	0.000001 %
arsenic (As)	max.	0.000001 %
aluminium (Al)	max.	0.000005 %
barium (Ba)	max.	0.000001 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00001 %
cadmium (Cd)	max.	0.000001 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
germanium (Ge)	max.	0.000005 %
mercury (Hg)	max.	0.000001 %
potassium (K)	max.	0.000005 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.00005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000001 %
strontium (Sr)	max.	0.000001 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.00001 %
heavy metals (as Pb)	max.	0.0002 %
chloride (Cl)	max.	0.00005 %
phosphate (PO ₄)	max.	0.00005 %
sulfate (SO ₄)	max.	0.00005 %
suitab.f.det.w.dithizone		complying
appearance		complying
residual solvents		complying

Order No.: **10315086** (1 L HDPE-bottle)
10314252 (2,5 L HDPE-bottle)

65937 Nitric acid 65 %, extra pure

assay		64-66 %
residue on ignition (SO ₄)	max.	0.0005 %
arsenic (As)	max.	0.0001 %

Order No.: **10315016** (2,5 L HDPE-bottle)

calcium (Ca)	max.	0.0005 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0001 %
sulfate (SO ₄)	max.	0.0002 %

65881 Nitric acid solution 2mol/l, volumetric solution

factor	1.000±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10314260** (1 L HDPE-bottle)

Nitric acid sodium salt → Sodium nitrate
 Nitroprusside sodium → Sodium nitroprusside
 NMP → 1-Methyl-2-propanol

iso-Octane 2,2,4-Trimethylpentane, Isobutyltrimethylmethane

C₈H₁₈

M = 114.26 g/mol

CAS [540-84-1]

EC number 2087591

Density: 0,692 - 0,693 g/cm³

Kp: 97 - 100 °C

F: 4 °C

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P301 + P330 + P331, P302 + P352, P304 + P340, P308 + P313



65722 iso-Octane B&J Brand, for liquid chromatography

assay (GC)	min.	99 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 210 nm	min.	35 %
transmittance at 235 nm	min.	90 %
transmittance from 270 nm	min.	99 %

Order No.: **10301151** (1 L glass bottle)
10299988 (2,5 L glass bottle)
10301228 (7 L stainless steel drum)
10301920 (45 L stainless steel drum)

65744 iso-Octane GC, for gas chromatography

assay (GC)	min.	99.5 %
non-volatile matter	max.	0.0004 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301343** (1 L glass bottle)
10301344 (2,5 L glass bottle)
10301345 (7 L stainless steel drum)
10302039 (45 L stainless steel drum)

65721 iso-Octane for spectroscopy

assay (GC)	min.	99.5 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g

Order No.: **10301142** (1 L glass bottle)
10299990 (2,5 L glass bottle)
10301227 (7 L stainless steel drum)
10301919 (45 L stainless steel drum)

suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 210 nm	min.	55 %
transmittance at 220 nm	min.	83 %
transmittance at 230 nm	min.	93 %
transmittance at 245 nm	min.	98 %
transmittance from 255 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

65798 iso-Octane for analysis, Reag. ACS, Reag. Ph. Eur.

assay (GC)	min.	99.5 %
boiling range		98-100 °C
distillation range 98-100 °C	min.	95 %
density (D 20/4)		0.692-0.693
refractive index (n 20/D)		1.3915-1.3925
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.0005 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
S-compounds (as S)	max.	0.005 %
APHA	max.	10

Order No.: **10304371** (2,5 L glass bottle)
10311180 (200 L metal drum)

65784 iso-Octane pure

assay (GC)	min.	99 %
non-volatile matter	max.	0.001 %
free acid (as CH ₃ COOH)	max.	0.001 %

Order No.: **10311135** (1 L glass bottle)
10304268 (2,5 L glass bottle)
10324441 (5 L ALU-bottle)

Paraffin viscid

CAS [8012-95-1]	Precautionary statements (prevention): P281
EC number 2323842	
Density: 0,827 - 0,890 g/cm ³	
Kp: 270 °C	
F: 230 °C	

65939 Paraffin viscid, extra pure, meets analytical specification of Ph. Eur., BP

density (D 20/20)	0.827-0.890
acidity or alkalinity	complying
aromat. polycycl. hydrocarbons	complying
reaction against H ₂ SO ₄	complying
solid paraffins	complying
identity (IR)	complying
dyn. viscosity	110-230 mPas
residual solvents	complying

Order No.: **10315051** (1 L glass bottle)
10315052 (2,5 L glass bottle)

n-Pentane 1,3-Dimethylpropane, DiethylmethaneC₅H₁₂

M = 72.15 g/mol

CAS [109-66-0]

EC number 2036924

Density: 0,625 - 0,626 g/cm³

Kp: 36,1 °C

F: -35 °C

Signal word: Danger**Supplemental:** EUH066**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P301 + P330 +

P331, P304 + P340, P308 + P313

**65731 n-Pentane B&J Brand, AMD, for liquid chromatography**

assay (GC)	min.	99 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 200 nm	min.	50 %
transmittance at 210 nm	min.	70 %
transmittance at 220 nm	min.	90 %
transmittance at 230 nm	min.	95 %
transmittance from 250 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
for AMD technic		complying

Order No.: **10301159** (1 L glass bottle)
10300074 (2,5 L glass bottle)
10301248 (7 L stainless steel drum)
10302013 (45 L stainless steel drum)

65776 n-Pentane B&J Brand, for liquid chromatography

assay (GC)	min.	99 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.005 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 200 nm	min.	20 %
transmittance at 210 nm	min.	70 %
transmittance at 220 nm	min.	90 %
transmittance at 230 nm	min.	95 %
transmittance from 250 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10304222** (2,5 L glass bottle)

65809 n-Pentane GC, for gas chromatography

assay (GC)	min.	99 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l
determination of P/N	max.	3 ng/l

Order No.: **10311268** (1 L glass bottle)
10304464 (2,5 L glass bottle)
10311269 (7 L stainless steel drum)
10311270 (45 L stainless steel drum)
10304465 (200 L stainless steel drum)

65797 n-Pentane for analysis

assay (GC)	min.	99 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.0005 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
S-compounds (as S)	max.	0.005 %
reaction against H ₂ SO ₄		complying

Order No.: **10311178** (1 L glass bottle)
10304350 (2,5 L glass bottle)
10315844 (5 L ALU-bottle)
10311179 (195 L steel drum)

65785 n-Pentane extra pure

assay (GC)	min.	95 %
non-volatile matter	max.	0.005 %
free acid (as CH ₃ COOH)	max.	0.001 %

Order No.: **10311120** (1 L glass bottle)
10304270 (2,5 L glass bottle)
10311137 (195 L steel drum)

iso-Pentane 2-MethylbutanC₅H₁₂

M = 72.15 g/mol

CAS [78-78-4]

EC number 2011428

Density: 0,620 - 0,621 g/cm³

Kp: 28 - 29 °C

F: -35 °C

Signal word: Danger**Supplemental:** EUH066**Precautionary statements (prevention):** P210, P260, P281**Precautionary statements (reaction):** P301 + P330 +
P331, P304 + P340, P308 + P313**65848 iso-Pentane**

assay (GC)	min.	99 %
non-volatile matter	max.	0.002 %

Order No.: **10314120** (1 L glass bottle)
10314121 (5 L ALU-bottle)

Perchloric acid

ClHO_4

M = 100.46 g/mol

CAS [7601-90-3]

EC number 2315124

Density: 1,530 g/cm³

Kp: 203 °C

65997 Perchloric acid 60 %, for analysis, Reag. ISO

assay	min.	60 %
residue on ignition (as sulfate)	max.	0.003 %
silver (Ag)	max.	0.00001 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000005 %
barium (Ba)	max.	0.000002 %
beryllium (Be)	max.	0.000005 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000005 %
copper (Cu)	max.	0.00001 %
iron (Fe)	max.	0.0001 %
germanium (Ge)	max.	0.000005 %
potassium (K)	max.	0.00001 %
lithium (Li)	max.	0.000002 %
magnesium (Mg)	max.	0.00005 %
manganese (Mn)	max.	0.000002 %
molybdenum (Mo)	max.	0.000005 %
nickel (Ni)	max.	0.00001 %
lead (Pb)	max.	0.000005 %
strontium (Sr)	max.	0.000002 %
titanium (Ti)	max.	0.00001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000005 %
zinc (Zn)	max.	0.00001 %
zirconium (Zr)	max.	0.00001 %
chlorate (ClO_3)	max.	0.001 %
chloride (Cl)	max.	0.0003 %
free chlorine (Cl)	max.	0.00005 %
total N	max.	0.001 %
phosphate, silicate (as SiO_2)	max.	0.0005 %
sulfate (SO_4)	max.	0.001 %

Order No.: **10315837** (1 L glass bottle)

Petroleum benzine

CAS [8032-32-4]

EC number 2324537

Kp: 40 - 60 °C

F: -30 °C

65748 Petroleum benzine boiling range 40-60°C GC, for gas chromatography

non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10303253** (1 L glass bottle)
10303254 (2,5 L glass bottle)
10311027 (7 L stainless steel drum)

65854 Petroleum benzine boiling range 100-140 °C, extra pure

boiling range		100-140 °C
density (D 20/4)		0.720-0.745
refractive index (n 20/D)		1.403-1.412
non-volatile matter	max.	0.005 %
water (Karl Fischer)	max.	0.01 %
aromatic substances (as C ₆ H ₅ CH ₃)	max.	0.02 %
S-compounds (as S)	max.	0.005 %

Order No.: **10314159** (1 L glass bottle)
10314160 (2,5 L glass bottle)

65971 Petroleum benzine boiling range 30- 50 °C, for analysis

boiling range		30-50 °C
density (D 20/4)		0.627-0.630
refractive index (n 20/D)		1.3570-1.3590
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
benzene (GC)	max.	0.01 %
iodine value	max.	0.3
S-compounds (as S)	max.	0.005 %
reaction against H ₂ SO ₄		complying

Order No.: **10315717** (1 L glass bottle)
10315718 (2,5 L glass bottle)

65751 Petroleum ether boiling range 40-60 °C for analysis, Reag. ACS, Reag. ISO

boiling range 40-60 °C	min.	95 %
boiling range		40-60 °C
density (D 20/4)		0.640-0.655
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %

Order No.: **10303420** (1 L glass bottle)
10303422 (2,5 L glass bottle)
10581717 (5 L ALU-bottle)
10303423 (25 L steel drum)
10311029 (195 L steel drum)

barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
benzene (GC)	max.	0.01 %
iodine value	max.	0.3
S-compounds (as S)	max.	0.005 %
APHA	max.	10

65750 Petroleum ether boiling range 40-60 °C, extra pure

boiling range 40-60 °C	min.	75 %
density (D 20/20)		0.642-0.656
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
benzene (GC)	max.	0.001 %
S-compounds (as S)	max.	0.005 %
appearance		complying
acidity or alkalinity		complying
n-Hexane (GC)	max.	2 %
reaction against H ₂ SO ₄		complying
tetraethyl lead		complying
S-compounds, reducing matters		complying

Order No.: **10303417** (1 L glass bottle)
10303418 (2,5 L glass bottle)
10303419 (25 L steel drum)
10311028 (195 L steel drum)

65972 Petroleum benzene boiling range 50-70 °C, for analysis, Reag. Ph. Eur.

boiling range		50-70 °C
density (D 20/20)		0.661-0.664
refractive index (n 20/D)		1.372-1.376
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %

Order No.: **10315720** (1 L glass bottle)
10315732 (2,5 L glass bottle)

zinc (Zn)	max.	0.00001 %
benzene (GC)	max.	0.01 %
S-compounds (as S)	max.	0.005 %
iodine value	max.	0.3

65973 Petroleum benzine boiling range 60-80 °C, for analysis

boiling range		60-80 °C
density (D 20/4)		0.660-0.680
refractive index (n 20/D)		1.376-1.382
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.01 %
free acid (as CH ₃ COOH)	max.	0.002 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
benzene (GC)	max.	0.005 %
iodine value	max.	0.3
S-compounds (as S)	max.	0.005 %

Order No.: **10315733** (1 L glass bottle)
10315735 (2,5 L glass bottle)

65969 Petroleum benzine boiling range 60-80 °C, extra pure

boiling range		60-80 °C
density (D 20/4)		0.660-0.680
refractive index (n 20/D)		1.376-1.382
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.01 %
benzene (GC)	max.	0.02 %
S-compounds (as S)	max.	0.005 %

Order No.: **10315723** (1 L glass bottle)
10315724 (2,5 L glass bottle)

65853 Petroleum benzine boiling range 90-100 °C, extra pure

boiling range		90-100 °C
density (D 20/4)		0.705-0.730
refractive index (n 20/D)		1.395-1.400
non-volatile matter	max.	0.005 %
water (Karl Fischer)	max.	0.01 %
aromatic substances (as C ₆ H ₅ CH ₃)	max.	0.02 %
S-compounds (as S)	max.	0.005 %

Order No.: **10314156** (1 L glass bottle)
10314157 (2,5 L glass bottle)
10314158 (25 L steel drum)

ortho-Phosphoric acid

H₃O₄P

M = 98 g/mol

CAS [7664-38-2]

EC number 2316332

Density: ca. 1,71 g/cm³

Kp: 158 °C

65870 ortho-Phosphoric acid 85 %, for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	85 %
volatile acids (CH ₃ COOH)	max.	0.001 %
water insoluble matter	max.	0.001 %
arsenic (As)	max.	0.00005 %
calcium (Ca)	max.	0.001 %
cadmium (Cd)	max.	0.0001 %
cobalt (Co)	max.	0.0001 %
chromium (Cr)	max.	0.0001 %
copper (Cu)	max.	0.0001 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.0005 %
magnesium (Mg)	max.	0.0005 %
manganese (Mn)	max.	0.00005 %
sodium (Na)	max.	0.002 %
nickel (Ni)	max.	0.0001 %
lead (Pb)	max.	0.0001 %
antimony (Sb)	max.	0.0002 %
zinc (Zn)	max.	0.0002 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.0002 %
fluoride (F)	max.	0.0001 %
nitrate (NO ₃)	max.	0.0003 %
phosphite, hypoph. (H ₃ PO ₃)	max.	0.002 %
phosphite, hypophosphite		complying
sulfate (SO ₄)	max.	0.003 %
KMnO ₄ red. matter (as O)	max.	0.001 %
subst. precipitated by NH ₃		complying
APHA	max.	10
reducing impurities		complying
appearance of the solution		complying
residual solvents		complying

Order No.: **10314695** (1 L HDPE-bottle)
10314209 (2,5 L HDPE-bottle)

66129 ortho-Phosphoric acid 99 % extra pure, crystalline

assay	min.	99 %
iron (Fe)	max.	0.001 %
heavy metals (as Pb)	max.	0.002 %
chloride (Cl)	max.	0.001 %
nitrate (NO ₃)	max.	0.001 %
sulfate (SO ₄)	max.	0.002 %
phosphite, hypoph. (H ₃ PO ₃)	max.	0.01 %

Order No.: **10316278** (0,500 KG HDPE-bottle)
10581027 (5 KG HDPE-bottle)

Potassium carbonate

CK₂O₃

M = 138.21 g/mol

CAS [584-08-7]

EC number 2095293

Density: ca. 2,430 g/cm³

Signal word: Warning

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P302 + P352, P304
+ P340, P305 + P351 + P338, P308 + P313



66122 Potassium carbonate for analysis, Reag. ISO, Reag. Ph. Eur.

assay	min.	99 %
loss on ignition (600°C)	max.	1.0 %
aluminium (Al)	max.	0.001 %
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.002 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
magnesium (Mg)	max.	0.001 %
sodium (Na)	max.	0.05 %
lead (Pb)	max.	0.0005 %
chloride (Cl)	max.	0.002 %
phosphate (PO ₄)	max.	0.001 %
silicate (as SiO ₂)	max.	0.003 %
total N	max.	0.001 %
total S (as SO ₄)	max.	0.003 %

Order No.: **10316122** (1 KG HDPE-bottle)

Potassium chloride

ClK

M = 74.55 g/mol

CAS [7447-40-7]

EC number 2312118

Density: ca. 2 g/cm³

Kp: 1.413 °C

Precautionary statements (prevention): P281

65866 Potassium chloride analytical reagent, Reag. ISO, Reag. Ph. Eur.

assay		99.5-100.5 %
water insoluble matter	max.	0.005 %
loss on drying (130°C)	max.	0.2 %
pH (5 %, 20°C)		05.Aug
acid. or alk. react. impurities		complying
free acid (as HCl)	max.	0.003 %
free alkali (as KOH)	max.	0.003 %
aluminium (Al)	max.	0.0001 %
barium (Ba)	max.	0.001 %
calcium (Ca)	max.	0.001 %
iron (Fe)	max.	0.0002 %
magnesium (Mg)	max.	0.0005 %
sodium (Na)	max.	0.02 %
heavy metals (as Pb)	max.	0.0005 %
bromide (Br)	max.	0.01 %
iodide (I)	max.	0.002 %

Order No.: **10314243** (0,500 KG HDPE-bottle)

10314986 (1 KG HDPE-bottle)

phosphate (PO ₄)	max.	0.0005 %
sulfate (SO ₄)	max.	0.002 %
total N	max.	0.001 %
appearance of the solution		complying

Potassium dihydrogen phosphate

H ₂ KO ₄ P	Precautionary statements (prevention): P281
M = 136.09 g/mol	
CAS [7778-77-0]	
EC number 2319134	
Density: 2,340 g/cm ³	

65897 Potassium dihydrogen phosphate for analysis, buffer, Reag. ISO, Reag. Ph. Eur.

assay (calc. to the dried substance)	min.	99.5 %	Order No.: 10314653 (0,100 KG HDPE-bottle)
loss on drying (130°C)	max.	0.2 %	10314655 (0,500 KG HDPE-bottle)
water insoluble matter	max.	0.01 %	10316160 (1 KG HDPE-bottle)
pH (5 %, 20°C)		4.1-4.5	10314656 (2,5 KG HDPE-bottle)
calcium (Ca)	max.	0.001 %	
cadmium (Cd)	max.	0.0005 %	
cobalt (Co)	max.	0.0005 %	
chromium (Cr)	max.	0.0015 %	
copper (Cu)	max.	0.0005 %	
iron (Fe)	max.	0.001 %	
magnesium (Mg)	max.	0.0005 %	
manganese (Mn)	max.	0.0005 %	
nickel (Ni)	max.	0.0005 %	
sodium (Na)	max.	0.005 %	
lead (Pb)	max.	0.0005 %	
zinc (Zn)	max.	0.0005 %	
heavy metals (as Pb)	max.	0.001 %	
chloride (Cl)	max.	0.0005 %	
sulfate (SO ₄)	max.	0.003 %	
total N	max.	0.001 %	

Potassium hexacyanoferrate(III)

C ₆ FeK ₄ N ₆ × 3H ₂ O	Precautionary statements (prevention): P281
M = 422.39 g/mol	
CAS [13746-66-2]	
EC number 2377222	
Density: ca. 1,86 g/cm ³	

66134 Potassium hexacyanoferrate(III) for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99 %	Order No.: 10318058 (0,500 KG HDPE-bottle)
water insoluble matter	max.	0.005 %	
calcium (Ca)	max.	0.0005 %	
cadmium (Cd)	max.	0.0005 %	
cobalt (Co)	max.	0.005 %	
copper (Cu)	max.	0.001 %	
sodium (Na)	max.	0.02 %	
nickel (Ni)	max.	0.001 %	

lead (Pb)	max.	0.002 %
zinc (Zn)	max.	0.0005 %
chloride (Cl)	max.	0.005 %
hexacyanoferrate(II) ([Fe(CN) ₆] ⁴⁻)	max.	0.02 %
sulfate (SO ₄)	max.	0.005 %

Potassium hexacyanoferrate(II)-3-hydrate

C ₆ FeK ₄ N ₆ × 3H ₂ O	Precautionary statements (prevention): P281
M = 422.39 g/mol	
CAS [14459-95-1]	
EC number 2377222	
Density: ca. 1,850 g/cm ³	

65900 Potassium hexacyanoferrate(II)-3-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99 %	Order No.: 10314660 (0,500 KG HDPE-bottle)
water insoluble matter	max.	0.005 %	
free alkali (as carbonate)	max.	0.0015 %	
cadmium (Cd)	max.	0.0005 %	
copper (Cu)	max.	0.002 %	
sodium (Na)	max.	0.01 %	
lead (Pb)	max.	0.002 %	
chloride (Cl)	max.	0.005 %	
sulfate (SO ₄)	max.	0.005 %	

Potassium hydroxide

HKO	Signal word: Danger
M = 56.11 g/mol	Precautionary statements (prevention): P260, P281
CAS [1310-58-3]	Precautionary statements (reaction): P301 + P330 +
EC number 2151813	P331, P302 + P352, P304 + P340, P305 + P351 + P338
Density: ca. 2,04 g/cm ³	
Kp: 1.327 °C	



65863 Potassium hydroxide pellets (max. 0,002 % Na), for analysis, Reag. ACS, Reag. ISO

assay	min.	85 %	Order No.: 10314234 (1 KG HDPE-bottle)
assay of K ₂ CO ₃	max.	1 %	
aluminium (Al)	max.	0.0002 %	
calcium (Ca)	max.	0.0005 %	
cadmium (Cd)	max.	0.00001 %	
copper (Cu)	max.	0.0001 %	
iron (Fe)	max.	0.0005 %	
magnesium (Mg)	max.	0.0005 %	
manganese (Mn)	max.	0.00005 %	
sodium (Na)	max.	0.002 %	
nickel (Ni)	max.	0.0001 %	
lead (Pb)	max.	0.0001 %	
zinc (Zn)	max.	0.0001 %	
heavy metals (as Ag)	max.	0.001 %	
chloride (Cl)	max.	0.0005 %	
phosphate (PO ₄)	max.	0.0005 %	
silicate (as SiO ₂)	max.	0.002 %	
sulfate (SO ₄)	max.	0.0005 %	
total N	max.	0.0003 %	

66143 Potassium hydroxide pellets, analytical reagent, Reag. Ph. Eur.

assay	min.	85 %
assay of K ₂ CO ₃	max.	1 %
aluminium (Al)	max.	0.001 %
calcium (Ca)	max.	0.001 %
iron (Fe)	max.	0.0005 %
sodium (Na)	max.	0.5 %
nickel (Ni)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %
phosphate (PO ₄)	max.	0.0005 %
silicate (as SiO ₂)	max.	0.005 %
sulfate (SO ₄)	max.	0.0005 %
total N	max.	0.0003 %

Order No.: **10598332** (1 KG HDPE-bottle)
10598333 (5 KG HDPE-bottle)**65859 Potassium hydroxide pellets, extra pure, meets analytical specification of Ph. Eur., BP, NF**

assay		85-100.5 %
assay of K ₂ CO ₃	max.	1 %
aluminium (Al)	max.	0.001 %
arsenic (As)	max.	0.0003 %
calcium (Ca)	max.	0.002 %
iron (Fe)	max.	0.001 %
sodium (Na)	max.	1 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
phosphate (PO ₄)	max.	0.001 %
silicate (as SiO ₂)	max.	0.01 %
sulfate (SO ₄)	max.	0.002 %
total N	max.	0.0005 %
appearance of the solution		complying
residual solvents		complying

Order No.: **10314220** (1 KG HDPE-bottle)**65878 Potassium hydroxide solution 0.1 mol/l, volumetric solution**

factor		1.000±0.001
BAM/EMPA ref.-material		effektive
BAM/EMPA Certificate no.		effektive
Traceable to NIST SRM		effektive

Order No.: **10315263** (1 L HDPE-bottle)
10314257 (10 L FIBREBOARD BOX)**65981 Potassium hydroxide 0,1 mol/l in ethanol denaturated with toluene, volumetric solution**

factor		1.000 ±0.001
BAM/EMPA ref.-material		effektive
BAM/EMPA Certificate no.		effektive
Traceable to NIST SRM		effektive

Order No.: **10315749** (1 L glass bottle)**65980 Potassium hydroxide 0,5 mol/l in ethanol denaturated with toluene, volumetric solution**

factor		1.000 ±0.001
BAM/EMPA ref.-material		effektive
BAM/EMPA Certificate no.		effektive
Traceable to NIST SRM		effektive

Order No.: **10315748** (1 L glass bottle)

Potassium iodide

IK **Precautionary statements (prevention):** P281

M = 166 g/mol

CAS [7681-11-0]

EC number 2316594

Density: ca. 3,13 g/cm³

Kp: 1.324 °C

65862 Potassium iodide analytical reagent, Reag. ISO, Reag. Ph. Eur.

assay	min.	99.5 %
loss on drying (105°C)	max.	0.2 %
pH (5 %, 20°C)		6.0-9.0
free alkali (as KOH)	max.	0.02 %
arsenic (As)	max.	0.00001 %
barium (Ba)	max.	0.002 %
calcium (Ca)	max.	0.001 %
iron (Fe)	max.	0.0003 %
magnesium (Mg)	max.	0.001 %
sodium (Na)	max.	0.03 %
heavy metals (as Pb)	max.	0.0005 %
bromide, chloride (as Cl)	max.	0.01 %
iodate (IO ₃)	max.	0.0002 %
phosphate (PO ₄)	max.	0.001 %
sulfate (SO ₄)	max.	0.001 %
thiosulfate (S ₂ O ₃)	max.	0.005 %
total N	max.	0.001 %
reducing impurities		complying
appearance of the solution		complying

Order No.: **10314692** (0,250 KG HDPE-bottle)
10314233 (1 KG HDPE-bottle)

Potassium sulfate

K₂O₄S **Precautionary statements (prevention):** P281

M = 174.26 g/mol

CAS [7778-80-5]

EC number 2319155

Density: ca. 2,66 g/cm³

Kp: 1.698 °C

65918 Potassium sulfate for analysis, Reag. ACS, Reag. ISO

assay	min.	99 %
water insoluble matter	max.	0.005 %
pH (5 %, 20°C)		06.07.2005
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.005 %
cadmium (Cd)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
magnesium (Mg)	max.	0.002 %
sodium (Na)	max.	0.005 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.0005 %

Order No.: **10314760** (0,100 KG HDPE-bottle)
10314761 (0,500 KG HDPE-bottle)
10314762 (1 KG HDPE-bottle)

heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %
total N	max.	0.0005 %
phosphate (PO ₄)	max.	0.001 %
appearance of the solution		complying
residual solvents		complying

Propane acid → Propionic acid

1,2,3-Propanetriol → #grau

1-Propanol n-Propyl alcohol, Ethylcarbinol, 1-Hydroxypropane, n-Propanol

C₃H₈O

M = 60.1 g/mol

CAS [71-23-8]

EC number 2007469

Density: 0,804 - 0,806 g/cm³

Kp: 96 - 98 °C

F: 23 °C

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P304 + P340, P305 + P351 + P338, P308 + P313



65765 1-Propanol B&J Brand, for liquid chromatography

assay (GC)	min.	99.90 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 220 nm	min.	55 %
transmittance at 240 nm	min.	85 %
transmittance from 275 nm	min.	99 %

Order No.: **10311055** (1 L glass bottle)
10304053 (2,5 L glass bottle)

65527 1-Propanol for analysis, Reag. Ph. Eur.

assay (GC)	min.	99.5 %
boiling range		96-99 °C
density (D 20/20)		0.802-0.806
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
free acid (as C ₂ H ₅ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %

Order No.: **10310986** (2,5 L glass bottle)
10311031 (25 L steel drum)
10284054 (160 KG metal drum)

acetone (GC)	max.	0.01 %
ethanol (GC)	max.	0.05 %
methanol (GC)	max.	0.05 %
2-propanol (GC)	max.	0.05 %
propionaldehyde (GC)	max.	0.01 %

65808 1-Propanol extra pure

assay (GC)	min.	99 %
non-volatile matter	max.	0.005 %
water (Karl Fischer)	max.	0.1 %
free acid (as C ₂ H ₅ COOH)	max.	0.002 %

Order No.: **10304438** (2,5 L glass bottle)
10311267 (25 L steel drum)
10304439 (200 L metal drum)

2-Propanol Isopropyl alcohol, Isopropanol, Dimethylcarbinol, 2-Hydroxypropane

C₃H₈O
M = 60.1 g/mol
CAS [67-63-0]
EC number 2006617

65702 2-Propanol B&J Brand LC-MS, for liquid chromatography

particles > 0,5 µm		effektive P/ml
assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
silver (Ag)	max.	0.1 ppm
aluminium (Al)	max.	0.5 ppm
barium (Ba)	max.	0.1 ppm
calcium (Ca)	max.	0.1 ppm
cadmium (Cd)	max.	0.05 ppm
cobalt (Co)	max.	0.02 ppm
chromium (Cr)	max.	0.02 ppm
copper (Cu)	max.	0.02 ppm
iron (Fe)	max.	0.1 ppm
potassium (K)	max.	0.1 ppm
magnesium (Mg)	max.	0.1 ppm
manganese (Mn)	max.	0.02 ppm
sodium (Na)	max.	0.1 ppm
nickel (Ni)	max.	0.02 ppm
lead (Pb)	max.	0.1 ppm
tin (Sn)	max.	0.1 ppm
zinc (Zn)	max.	0.1 ppm
transmittance at 220 nm	min.	60 %
transmittance at 230 nm	min.	80 %
transmittance from 260 nm	min.	98 %
HPLC-gradient at 254 nm	max.	2 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
suitability for the LC-MS		complying

Order No.: **10299602** (1 L glass bottle)
10299603 (2,5 L glass bottle)
10301208 (7 L stainless steel drum)
10301973 (45 L stainless steel drum)

65958 2-Propanol Super Gradient Grade, for liquid chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
free acid (as C ₂ H ₅ COOH)	max.	0.001 %
transmittance at 220 nm	min.	65 %
transmittance at 230 nm	min.	80 %
transmittance from 260 nm	min.	98 %
HPLC-gradient at 235 nm	max.	2 mAU
HPLC-gradient at 254 nm	max.	2 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10315598** (1 L glass bottle)
10315599 (2,5 L glass bottle)

65701 2-Propanol Gradient Grade, for liquid chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.05 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
transmittance at 220 nm	min.	65 %
transmittance at 230 nm	min.	80 %
transmittance from 260 nm	min.	98 %
HPLC-gradient at 235 nm	max.	3 mAU
HPLC-gradient at 254 nm	max.	3 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301078** (1 L glass bottle)
10299600 (2,5 L glass bottle)
10301207 (7 L stainless steel drum)
10301972 (45 L stainless steel drum)
10322123 (190 L SST drum, 0.5 bar)
10315057 (200 L stainless steel drum)
10323180 (1000 L stainless steel IBC)

65835 2-Propanol GC, for gas chromatography

assay (GC)	min.	99.8 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.1 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10313923** (1 L glass bottle)
10313924 (2,5 L glass bottle)
10313925 (7 L stainless steel drum)
10313926 (45 L stainless steel drum)

65746 2-Propanol for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.8 %
boiling range		81-83 °C
density (D 20/4)		0.784-0.786
refractive index (n 20/D)		1.3770-1.3780
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.1 %
free acid (as C ₂ H ₅ COOH)	max.	0.00074 %
free alkali (as NH ₃)	max.	0.00017 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
bismuth (Bi)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %

Order No.: **10300982** (1 L HDPE-bottle)
10300984 (2,5 L HDPE-bottle)
10580677 (25 L steel drum)
10300987 (155 KG metal drum)

iron (Fe)	max.	0.00001 %
potassium (K)	max.	0.00005 %
lithium (Li)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
molybdenum (Mo)	max.	0.00001 %
sodium (Na)	max.	0.0001 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
strontium (Sr)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
carbonyl compounds (as acetone)	max.	0.002 %
carbonyl compounds (as propionaldehy	max.	0.002 %
ethanol (GC)	max.	0.01 %
methanol (GC)	max.	0.1 %
KMnO ₄ red. matter (as O)	max.	0.0005 %
solubility in water		complying
peroxides (as H ₂ O ₂)	max.	0.00034 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

65753 2-Propanol extra pure, meets analytical specification of Ph. Eur., BO, USP

appearance		complying
identity		complying
assay (GC)	min.	99.5 %
density (D 20/20)		0.785-0.788
density (D 25/25)		0.783-0.787
refractive index (n 20/D)		1.377-1.378
non-volatile matter	max.	0.002 %
water (Karl Fischer)	max.	0.2 %
free acid (as C ₂ H ₅ COOH)	max.	0.002 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0002 %
aldehy.,ketones(as CH ₃ COCH ₃)	max.	0.05 %
benzene	max.	0.0001 %
benzene and related substances		complying
methanol (GC)	max.	0.1 %
peroxides		complying
acidity or alkalinity		complying
absorbance		complying
residual solvents		complying

Order No.: **10303779** (1 L glass bottle)
10303841 (2,5 L glass bottle)
10304328 (5 L HDPE-bottle)
10303842 (25 L steel drum)
10303843 (200 L metal drum)
10579587 (900L HDPE IBC)

iso-Propanol → 2-Propanol

n-Propanol → 1-Propanol

2-Propanone → Acetone

Quartz (sand) Silicon dioxide

SiO ₂	Precautionary statements (prevention): P281
M = 60.08 g/mol	
CAS [14808-60-7]	
EC number 2388784	
Density: ca. 2,650 g/cm ³	
Kp: ca. 2.210 °C	

65868 Quartz (sand) washed and calcined for analysis

loss on ignition	max.	0.1 %
soluble in HCl	max.	0.2 %
chloride (Cl)	max.	0.01 %
granulation 0.1-0.5 mm	min.	70 %

Order No.: **10314245** (1 KG HDPE-bottle)
10315830 (2,5 KG HDPE-bottle)

Silica gel orange

CAS [112926-00-8]
 EC number 2315454

65861 Silica gel orange with moisture indicator free of heavy metals, approx. 2-5 mm

soluble in chloroform	max.	0.025 %
water absorbing capacity	min.	25 %
loss on drying (150°C, 3h)	max.	2 %

Order No.: **10314232** (2,5 KG HDPE-bottle)

Silver nitrate

AgNO₃
 M = 169.87 g/mol
 CAS [7761-88-8]
 EC number 2318539
 Density: ca. 4,350 g/cm³

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P301 + P330 + P331,
 P302 + P352, P304 + P340, P305 + P351 + P338

**66110 Silver nitrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.**

assay	min.	99.8 %
acid. or alk. react. impurities		complying
free acid		complying
cadmium (Cd)	max.	0.0001 %
copper (Cu)	max.	0.0002 %
iron (Fe)	max.	0.0002 %
manganese (Mn)	max.	0.0005 %
lead (Pb)	max.	0.001 %
zinc (Zn)	max.	0.0001 %
subst. not precipitated by HCl (as S	max.	0.01 %
chloride (Cl)	max.	0.0001 %
nitrite (NO ₂)	max.	0.05 %
sulfate (SO ₄)	max.	0.002 %
Al,Pb,Bi and Cu-iones		complying
appearance of the solution		complying

Order No.: **10315883** (0,100 KG HDPE-bottle)

65895 Silver nitrate 1,0 mol/l, volumetric solution

factor	1.000+-0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10314627** (1 L glass bottle)

65883 Silver nitrate 0,1 mol/l, volumetric solution, Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10314272** (1 L glass bottle)**Silver sulfate**

AgO₄S
M = 311.8 g/mol
CAS [10294-26-5]
EC number 2336537
Density: ca. 1,850 g/cm³
Kp: 338 °C

65998 Silver sulfate solution 10 g/l in sulfuric acid for COD determination DIN38409, part 41

assay of H ₂ SO ₄	94-96 %
assay of Ag ₂ SO ₄	0.54-0.56 %
density (20°C)	max. 1.83-1.85 g/ml

Order No.: **10315838** (2,5 L glass bottle)**Sodium acetate anhydrous**

C₂H₃NaO₂
M = 82.03 g/mol
CAS [127-09-3]
EC number 2048238
Density: ca. 1,45 g/cm³

Precautionary statements (prevention): P281**65930 Sodium acetate anhydrous for analysis, Reag. ACS, Reag. Ph. Eur.**

assay	min.	99 %
water insoluble matter	max.	0.005 %
loss on drying (120°C)	max.	1 %
pH (5 %, 20°C)		7.5-9.2
aluminium (Al)	max.	0.001 %
calcium (Ca)	max.	0.001 %
cadmium (Cd)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.02 %
magnesium (Mg)	max.	0.0005 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.001 %
phosphate (PO ₄)	max.	0.0005 %
sulfate (SO ₄)	max.	0.002 %
appearance of the solution		complying

Order No.: **10314981** (0,250 KG HDPE-bottle)

Sodium acetate-3-hydrate

$C_2H_3NaO_2 \times 3H_2O$

M = 136.08 g/mol

CAS [6131-90-4]

EC number 2048238

Density: ca. 1,450 g/cm³

Precautionary statements (prevention): P281

65903 Sodium acetate-3-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	99.0-101.0 %	Order No.: 10314687 (1 KG HDPE-bottle)
assay (calc. to the dried substance)	99.0-101.0 %	
water insoluble matter	max. 0.005 %	
loss on drying (130°C)	39.0-40.5 %	
pH (5 %, 20°C)	7.5-9.0	
pH (5 %, 25 °C)	7.5-9.2	
aluminium (Al)	max. 0.00002 %	
arsenic (As)	max. 0.0002 %	
calcium (Ca)	max. 0.002 %	
cadmium (Cd)	max. 0.0005 %	
copper (Cu)	max. 0.0005 %	
iron (Fe)	max. 0.0005 %	
potassium (K)	max. 0.005 %	
magnesium (Mg)	max. 0.002 %	
lead (Pb)	max. 0.0005 %	
zinc (Zn)	max. 0.0005 %	
heavy metals (as Pb)	max. 0.0005 %	
chloride (Cl)	max. 0.0005 %	
phosphate (PO ₄)	max. 0.0005 %	
sulfate (SO ₄)	max. 0.002 %	
KMNO ₄ red. matter(as HCOOH)	max. 0.005 %	
reducing impurities	complying	
appearance of the solution	complying	
residual solvents	complying	

Sodium carbonate anhydrous Soda

CNa_2O_3

M = 105.99 g/mol

CAS [497-19-8]

EC number 2078388

Density: ca. 2,53 g/cm³

Signal word: Warning

Precautionary statements (prevention): P281

Precautionary statements (reaction): P305 + P351 +

P338, P308 + P313



65885 Sodium carbonate anhydrous, for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (calc. to the dried substance)	min. 99.8 %	Order No.: 10314471 (0,500 KG HDPE-bottle)
loss on drying (300°C)	max. 0.5 %	10314697 (1 KG HDPE-bottle)
water insoluble matter	max. 0.01 %	10314985 (2,5 KG HDPE-bottle)
aluminium (Al)	max. 0.001 %	
arsenic (As)	max. 0.00005 %	
calcium (Ca)	max. 0.005 %	
cadmium (Cd)	max. 0.0005 %	
copper (Cu)	max. 0.0005 %	
iron (Fe)	max. 0.0005 %	

potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.002 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
total N	max.	0.001 %
total S (as SO ₄)	max.	0.003 %
phosphate (PO ₄)	max.	0.001 %
silicate (as SiO ₂)	max.	0.002 %
residual solvents		complying

65840 Sodium carbonate anhydrous, extra pure, meets analytical specification of Ph. Eur., BP, NF, FCC, E 500

assay (calc. to the dried substance)		99.5-100.5 %
loss on drying (300°C)	max.	0.5 %
arsenic (As)	max.	0.0002 %
copper (Cu)	max.	0.002 %
iron (Fe)	max.	0.001 %
mercury (Hg)	max.	0.0001 %
lead (Pb)	max.	0.0004 %
zinc (Zn)	max.	0.002 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.01 %
sulfate (SO ₄)	max.	0.005 %
alkali hydroxide, -bicarbonates		complying
appearance of the solution		complying
organic volatile impurities (GC)		complying
residual solvents		complying

Order No.: **10314837** (1 KG HDPE-bottle)
10313943 (5 KG HDPE-bottle)

Sodium chloride

CINa	Precautionary statements (prevention): P281
M = 58.44 g/mol	
CAS [7647-14-5]	
EC number 2315983	
Density: ca. 2,16 g/cm ³	
Kp: 1.465 °C	

65827 Sodium chloride for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99.8 %
loss on drying (130°C)	max.	0.2 %
water insoluble matter	max.	0.005 %
pH (5 %, 20°C)		05.Aug
free acid (as HCl)	max.	0.005 %
free alkali (as NaOH)	max.	0.005 %
aluminium (Al)	max.	0.00002 %
arsenic (As)	max.	0.00005 %
barium (Ba)	max.	0.001 %
calcium (Ca)	max.	0.002 %
iron (Fe)	max.	0.0001 %
potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0003 %

Order No.: **10315828** (0,500 KG HDPE-bottle)
10313783 (1 KG HDPE-bottle)
10314835 (5 KG HDPE-bottle)

bromide (Br)	max.	0.005 %
chlorate, nitrate (as NO ₃)	max.	0.003 %
iodide (I)	max.	0.001 %
potassium hexacyanoferrate(II)	max.	0.0001 %
phosphate (PO ₄)	max.	0.0005 %
sulfate (SO ₄)	max.	0.001 %
total N	max.	0.001 %
acidity or alkalinity		complying
appearance of the solution		complying
Mg, earthalkalimetals (as Ca)	max.	0.01 %

66101 Sodium chloride free flowing, extra pure

assay	min.	99.5 %
loss on drying (105°C)	max.	0.3 %
ammonium (NH ₄)	max.	0.001 %
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.01 %
iron (Fe)	max.	0.0005 %
magnesium (Mg)	max.	0.003 %
heavy metals (as Pb)	max.	0.0005 %
sodium hexa cyanoferrate	max.	0.003 %
sulfate (SO ₄)	max.	0.03 %

Order No.: **10315850** (2,5 KG HDPE-bottle)
10315852 (5 KG HDPE-bottle)

tri-Sodium citrate-2-hydrate

C₆H₅Na₃O₇ × 2H₂O
M = 294.1 g/mol
CAS [6132-04-3]
EC number 2006753

65907 tri-Sodium citrate-2-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99.5 %
water insoluble matter	max.	0.005 %
water (Karl Fischer)		Nov.13 %
pH (5 %, 20°C)		7.5-9.0
free acid (as C ₆ H ₈ O ₇)	max.	0.06 %
free alkali (as NaOH)	max.	0.04 %
calcium (Ca)	max.	0.005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
lead (Pb)	max.	0.0002 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
oxalate (C ₂ O ₄)	max.	0.02 %
phosphate (PO ₄)	max.	0.002 %
sulfate (SO ₄)	max.	0.001 %
reaction against H ₂ SO ₄		complying
total N	max.	0.001 %
appearance of the solution		complying

Order No.: **10314711** (0,250 KG HDPE-bottle)
10314712 (0,500 KG HDPE-bottle)
10314713 (1 KG HDPE-bottle)

Sodium dihydrogen phosphate

$\text{H}_2\text{NaO}_4\text{P}$

M = 119.98 g/mol

CAS [7558-80-7]

EC number 2314492

66133 Sodium dihydrogen phosphate extra pure, meets analytical specification of BP

assay (calc. to the dried substance)		98-100.5 %	Order No.: 10316898 (1 KG HDPE-bottle)
loss on drying (130°C)	max.	1 %	
pH (5 %, 20°C)		4.2-4.5	
arsenic (As)	max.	0.0002 %	
iron (Fe)	max.	0.001 %	
heavy metals (as Pb)	max.	0.001 %	
chloride (Cl)	max.	0.005 %	
sulfate (SO ₄)	max.	0.03 %	
reducing impurities		complying	
appearance of the solution		complying	

di-Sodium hydrogen phosphate

$\text{HNa}_2\text{O}_4\text{P}$

M = 141.96 g/mol

CAS [7558-79-4]

EC number 2314487

65898 di-Sodium hydrogen phosphate for analysis, buffer substance, Reag. ACS

assay	min.	99 %	Order No.: 10314657 (0,250 KG HDPE-bottle)
water insoluble matter	max.	0.01 %	10314658 (1 KG HDPE-bottle)
loss on drying (105°C, 2 h)	max.	0.2 %	
pH (5 %, 20°C)		8.9-9.2	
pH (0.1 M, 25°C)		9.1-9.2	
arsenic (As)	max.	0.0001 %	
copper (Cu)	max.	0.0005 %	
iron (Fe)	max.	0.0005 %	
potassium (K)	max.	0.01 %	
lead (Pb)	max.	0.0002 %	
zinc (Zn)	max.	0.0005 %	
heavy metals (as Pb)	max.	0.001 %	
chloride (Cl)	max.	0.001 %	
sulfate (SO ₄)	max.	0.005 %	

Sodium hydrogen carbonate Natron

CHNaO_3

Precautionary statements (prevention): P281

M = 84.01 g/mol

CAS [144-55-8]

EC number 2056338

Density: ca. 2,2 g/cm³

65886 Sodium hydrogen carbonate Powder, for analysis, Reag. ACS, Reag. Ph. Eur.

assay	min.	99.7 %
water insoluble matter	max.	0.015 %
pH (5 %, 20°C)	max.	8.6
ammonium (NH ₄)	max.	0.0005 %
arsenic (As)	max.	0.0002 %
calcium (Ca)	max.	0.01 %
cadmium (Cd)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.005 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
phosphate (PO ₄)	max.	0.001 %
I red. matters (as SO ₂)	max.	0.005 %
S-compounds (as SO ₄)	max.	0.003 %
appearance of the solution		complying
residual solvents		complying

Order No.: **10314472** (0,500 KG HDPE-bottle)
10314984 (1 KG HDPE-bottle)

di-Sodium hydrogenphosphate-2-hydrate

HNa ₂ O ₄ P x 2H ₂ O	Precautionary statements (prevention): P281
M = 177.99 g/mol	
CAS [10028-24-7]	
EC number 2314487	
Density: ca. 2,066 g/cm ³	

65912 di-Sodium hydrogenphosphate-2-hydrate for analysis, Reag. Ph. Eur.

assay (calc. to the dried substance)	min.	98.5-101.0 %
assay of NaH ₂ PO ₄ (calc.to dried subs	max.	0.5 %
loss on drying (130°C)		19.5-21.0 %
pH (5 %, 20°C)		9.0-9.2
arsenic (As)	max.	0.00005 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.001 %
sulfate (SO ₄)	max.	0.005 %
total N	max.	0.001 %
appearance of the solution		complying
reducing impurities		complying

Order No.: **10314709** (0,500 KG HDPE-bottle)
10314743 (1 KG HDPE-bottle)

66137 di-Sodium hydrogen phosphate-2-hydrate extra pure, meets analytical specification of Ph. Eur., BP

assay (calc. to the dried substance)		98.5-101 %
assay of NaH ₂ PO ₄ (calc.to dried subs	max.	1 %
loss on drying (130°C)		19.05.2021 %
pH (1 %,20°C)		9.0-9.4
arsenic (As)	max.	0.0002 %
iron (Fe)	max.	0.001 %

Order No.: **10321806** (5 KG HDPE-bottle)

heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.005 %
sulfate (SO ₄)	max.	0.01 %
appearance of the solution		complying
reducing impurities		complying
residual solvents		complying

Sodium hydroxide Soda caustic

HNaO
M = 40 g/mol
CAS [1310-73-2]
EC number 2151855
Density: ca. 1,35 g/cm³
Kp: ca. 120 °C

65989 Sodium hydroxide 32 %, pure

assay	min.	32 %
iron (Fe)	max.	0.002 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.005 %
sulfate (SO ₄)	max.	0.005 %

Order No.: **10315803** (5 L HDPE-bottle)

65860 Sodium hydroxide pellets, extra pure, meets analytical specification of Ph. Eur., BP, NF, E 524

assay		98-100.5 %
assay of Na ₂ CO ₃	max.	0.5 %
aluminium (Al)	max.	0.001 %
arsenic (As)	max.	0.0002 %
calcium (Ca)	max.	0.001 %
iron (Fe)	max.	0.001 %
mercury (Hg)	max.	0.0001 %
potassium (K)	max.	0.1 %
lead (Pb)	max.	0.00005 %
heavy metals (as Pb)	max.	0.002 %
chloride (Cl)	max.	0.002 %
total N	max.	0.0005 %
phosphate (PO ₄)	max.	0.001 %
silicate (as SiO ₂)	max.	0.01 %
sulfate (SO ₄)	max.	0.003 %
water insoluble matter + org. comp.		complying
residual solvents		complying
appearance of the solution		complying

Order No.: **10314231** (1 KG HDPE-bottle)

65864 Sodium hydroxide pellets, for analysis, Reag. ACS, Reag. Ph. Eur.

assay	min.	99 %
assay of Na ₂ CO ₃	max.	1 %
aluminium (Al)	max.	0.0005 %
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %

Order No.: **10314838** (0,500 KG HDPE-bottle)

10314235 (1 KG HDPE-bottle)

10314839 (5 KG HDPE-bottle)

mercury (Hg)	max.	0.000005 %
potassium (K)	max.	0.02 %
magnesium (Mg)	max.	0.0005 %
nickel (Ni)	max.	0.0005 %
lead (Pb)	max.	0.0002 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
heavy metals (as Ag)	max.	0.002 %
chloride (Cl)	max.	0.0005 %
phosphate (PO ₄)	max.	0.0005 %
silicate (as SiO ₂)	max.	0.001 %
sulfate (SO ₄)	max.	0.0005 %
total N	max.	0.0003 %
appearance of the solution		complying

65983 Sodium hydroxide 0,5 mol/l, volumetric solution

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315770** (1 L HDPE-bottle)

65879 Sodium hydroxide solution 0,1 mol/l, volumetric solution Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315264** (1 L HDPE-bottle)
10314258 (10 L FIBREBOARD BOX)

65984 Sodium hydroxide solution 0.25 mol/l, volumetric solution

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315791** (1 L HDPE-bottle)

65982 Sodium hydroxide solution 1 mol/l, volumetric solution, Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315769** (1 L HDPE-bottle)

Sodium iodide

Ina	Precautionary statements (prevention): P281
M = 149.89 g/mol	
CAS [7681-82-5]	
EC number 2316793	
Density: 3,67 g/cm ³	
Kp: 1.304 °C	

65888 Sodium iodide extra pure, meets analytical specification of Ph. Eur., BP, USP

assay (calc. to the dried substance)		99-100.5 %
loss on drying (105°C)	max.	2 %
water (Karl Fischer)	max.	2 %
free alkali (as NaOH)	max.	0.02 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.05 %
heavy metals (as Pb)	max.	0.0005 %
bromide, chloride (as Cl)	max.	0.03 %
iodate (IO ₃)	max.	0.0002 %
sulfate (SO ₄)	max.	0.01 %
thiosulfate (S ₂ O ₃)	max.	0.005 %
total N	max.	0.003 %
appearance of the solution		complying
thiosulfate and barium		complying
alkalinely reacting impurities		complying
organic volatile impurities (GC)		complying
residual solvents		complying

Order No.: **10314601** (0,100 KG HDPE-bottle)**Sodium nitrate** Nitric acid sodium salt

NaNO₃
M = 84.99 g/mol
CAS [7631-99-4]
EC number 2315543
Density: ca. 2,26 g/cm³

Signal word: Warning**Precautionary statements (prevention):** P210, P281**Precautionary statements (reaction):** P301 + P330, P308 + P313**65909 Sodium nitrate for analysis, Reag. ACS, Reag. ISO**

assay	min.	99.5 %
water insoluble matter	max.	0.005 %
pH (5 %, 20°C)		5.5-8.0
ammonium (NH ₄)	max.	0.002 %
calcium (Ca)	max.	0.002 %
cadmium (Cd)	max.	0.0005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0002 %
potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.001 %
lead (Pb)	max.	0.0005 %
zinc (Zn)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %
iodate (IO ₃)	max.	0.0005 %
nitrite (NO ₂)	max.	0.001 %
phosphate (PO ₄)	max.	0.0002 %
sulfate (SO ₄)	max.	0.003 %

Order No.: **10314732** (0,100 KG HDPE-bottle)**10314733** (0,500 KG HDPE-bottle)**10314734** (1 KG HDPE-bottle)**Sodium nitrite**

NaNO₂
M = 69 g/mol
CAS [7632-00-0]
EC number 2315559
Density: ca. 2,17 g/cm³

Signal word: Danger**Precautionary statements (prevention):** P210, P273, P281**Precautionary statements (reaction):** P301 + P330, P308 + P313

65902 Sodium nitrite for analysis, Reag. ACS, Reag. Ph. Eur.

assay	min.	99 %
water insoluble matter	max.	0.005 %
calcium (Ca)	max.	0.002 %
iron (Fe)	max.	0.001 %
potassium (K)	max.	0.005 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.005 %
sulfate (SO ₄)	max.	0.005 %

Order No.: **10314700** (0,250 KG HDPE-bottle)**Sodium nitroprusside** Disodiumpentacyanonitrosylferrate(II) dihydrate, Nitroprusside sodium, Sodium nitroferricyanide

C₅FeN₆Na₂O × 2H₂O
M = 297.95 g/mol
CAS [13755-38-9]
EC number 2383739
Density: ca. 1,720 g/cm³

Signal word: Danger**Precautionary statements (prevention):** P281**Precautionary statements (reaction):** P301 + P330, P308
+ P313**66107 Sodium nitroprusside for analysis, Reag. ACS, Reag. Ph. Eur.**

assay	min.	99 %
water insoluble matter	max.	0.005 %
chloride (Cl)	max.	0.01 %
hexacyanoferrate(II) ([Fe(CN) ₆] ⁴⁻)	max.	0.02 %
hexacyanoferrate(III) ([Fe(CN) ₆] ³⁻)	max.	0.01 %
sulfate (SO ₄)	max.	0.01 %

Order No.: **10315869** (0,050 KG HDPE-bottle)**Sodium salicylate**

C₇H₅NaO₃
M = 160.11 g/mol
CAS [54-21-7]
EC number 2001980

66109 Sodium salicylate for analysis, Reag. Ph. Eur.

assay (calc. to the dried substance)		99.5-101.0 %
loss on drying (105°C)	max.	0.3 %
iron (Fe)	max.	0.001 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.002 %
sulfate (SO ₄)	max.	0.05 %
acidly reacting impurities		complying
appearance of the solution		complying
sulfite or thiosulfate		complying

Order No.: **10315881** (0,250 KG HDPE-bottle)**10315882** (1 KG HDPE-bottle)**Sodium sulfate**

Na₂O₄S
M = 142.04 g/mol
CAS [7757-82-6]
EC number 2318209
Density: ca. 2,68 g/cm³

Precautionary statements (prevention): P281

66114 Sodium sulfate exsiccated, for residue analysis

suitability for residue analysis	max.	1000 ng/kg	Order No.: 10315876 (0,500 KG glass bottle)
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65867 Sodium sulfate anhydrous, for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99 %	Order No.: 10316453 (0,500 KG HDPE-bottle)
loss on ignition (800°C)	max.	0.5 %	10314244 (1 KG HDPE-bottle)
loss on drying (130°C)	max.	0.5 %	10315262 (2,5 KG HDPE-bottle)
water insoluble matter	max.	0.01 %	10315829 (5 KG HDPE-bottle)
pH (5 %, 20°C)		5.2-8.0	
free acid (as H ₂ SO ₄)	max.	0.05 %	
free alkali (as NaOH)	max.	0.03 %	
arsenic (As)	max.	0.0001 %	
calcium (Ca)	max.	0.002 %	
iron (Fe)	max.	0.0005 %	
potassium (K)	max.	0.01 %	
magnesium (Mg)	max.	0.0025 %	
zinc (Zn)	max.	0.02 %	
heavy metals (as Pb)	max.	0.0005 %	
chloride (Cl)	max.	0.001 %	
phosphate (PO ₄)	max.	0.001 %	
total N	max.	0.0005 %	
appearance of the solution		complying	

65999 Sodium sulfate anhydrous, technical

assay	min.	99 %	Order No.: 10315849 (1 KG HDPE-bottle)
loss on drying (130°C)	max.	0.2 %	10315846 (5 KG HDPE-bottle)
free acid (as H ₂ SO ₄)	max.	0.2 %	
free alkali (as NaOH)	max.	0.1 %	
iron (Fe)	max.	0.005 %	
heavy metals (as Pb)	max.	0.005 %	
chloride (Cl)	max.	0.02 %	

Sodium sulfite anhydrous

Na ₂ O ₃ S	Precautionary statements (prevention): P281
M = 126.04 g/mol	
CAS [7757-83-7]	
EC number 218217	
Density: 2,6 g/cm ³	

66108 Sodium sulfite anhydrous, for analysis, Reag. Ph. Eur.

assay (iodometric)		98-100.0 %	Order No.: 10315870 (1 KG HDPE-bottle)
arsenic (As)	max.	0.00002 %	10315871 (25 KG FIBREBOARD BOX)
calcium (Ca)	max.	0.005 %	
copper (Cu)	max.	0.0005 %	
iron (Fe)	max.	0.0005 %	
lead (Pb)	max.	0.0005 %	
selenium (Se)	max.	0.001 %	
zinc (Zn)	max.	0.001 %	
heavy metals (as Pb)	max.	0.001 %	

chloride (Cl)	max.	0.005 %
thiosulfate (S ₂ O ₃)	max.	0.02 %
appearance of the solution		complying

Sodium tetraborate-10-hydrate

B₄Na₂O₇ × 10 H₂O
M = 381.37 g/mol
CAS [1303-96-4]
EC number 2155404
Density: 1,73 g/cm³

Signal word: Danger

Precautionary statements (prevention): P201, P281

Precautionary statements (reaction): P308 + P313



65926 Sodium tetraborate-10-hydrate for analysis, buffer substance, Reag. ACS, Reag. ISO (Borax)

assay	min.	99.5 %
water insoluble matter	max.	0.001 %
pH (5 %, 20°C)		9.0-9.6
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.005 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
lead (Pb)	max.	0.0005 %
heavy metals (as Pb)	max.	0.001 %
chloride (Cl)	max.	0.001 %
phosphate (PO ₄)	max.	0.001 %
sulfate (SO ₄)	max.	0.005 %
pH (0.01 m, 25°C)		9.15-9.20

Order No.: **10314942** (0,500 KG HDPE-bottle)

Sodium thiosulfate-5-hydrate

Na₂O₃S₂ × 5 H₂O
M = 248.21 g/mol
CAS [10102-17-7]
EC number 2318675
Density: 1,73 g/cm³

Precautionary statements (prevention): P281

66125 Sodium thiosulfate-5-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99.5 %
water insoluble matter	max.	0.005 %
pH (5 %, 25 °C)		6.0-7.5
pH (10 %, 20°C)		6.0-8.4
calcium (Ca)	max.	0.002 %
copper (Cu)	max.	0.0005 %
iron (Fe)	max.	0.0005 %
potassium (K)	max.	0.001 %
magnesium (Mg)	max.	0.001 %
lead (Pb)	max.	0.0005 %
chloride (Cl)	max.	0.01 %
sulfate and sulfite(as SO ₄)	max.	0.1 %
sulfide (S)	max.	0.0001 %
total N	max.	0.002 %
appearance of the solution		complying

Order No.: **10316134** (1 KG HDPE-bottle)

Sodium thiosulfate solution Antichlor

$\text{Na}_2\text{O}_3\text{S}_2 \times 5 \text{H}_2\text{O}$	Precautionary statements (prevention): P281
M = 158.11 g/mol	
CAS [7772-98-7]	
EC number 2318675	
Density: ca. 1,000 g/cm ³	
Kp: ca. 100 °C	


65877 Sodium thiosulfate solution 0,05 mol/l, volumetric solution

factor _____ 1.000±0.001 Order No.: **10314256** (1 L HDPE-bottle)

66144 Sodium thiosulfate 0,1 mol/l, volumetric solution, Reag. Ph. Eur.

factor _____ 1.000 ±0.001 Order No.: **10598334** (1 L HDPE-bottle)

Stannous chloride anhydrous Tin dichloride

Cl_2Sn	Signal word: Danger	
M = 189.62 g/mol	Precautionary statements (prevention): P260, P281	
CAS [7772-99-8]	Precautionary statements (reaction): P301 + P330 +	
EC number 2318680	P331, P302 + P352, P304 + P340, P305 + P351 + P338	
Kp: 623 °C		

66103 Tin(II) chloride anhydrous, pure

assay _____ min. 98 % Order No.: **10315856** (0,500 KG glass bottle)

D(+)-Sucrose

$\text{C}_{12}\text{H}_{22}\text{O}_{11}$	Precautionary statements (prevention): P281
M = 342.3 g/mol	
CAS [57-50-1]	
EC number 2003349	
Density: ca. 1,58 g/cm ³	

65893 D(+)-Sucrose extra pure, meets analytical specification of Ph. Eur., BP, NF

identity	complying	Order No.: 10314634 (0,100 KG HDPE-bottle)
spec.rotation ($[\alpha]_{20}^{\text{Dc}}=26$ in H_2O)	+66.3-+67.0 °	10314635 (0,250 KG HDPE-bottle)
conductivity 20 °C	max. 35 µS/cm	10314636 (1 KG HDPE-bottle)
loss on drying (105°C, 3h)	max. 0.1 %	10314637 (2,5 KG HDPE-bottle)
sulfated ash	max. 0.01 %	10321656 (10 KG HDPE-bottle)
calcium (Ca)	complying	
lead (Pb)	max. 0.00005 %	
heavy metals (as Pb)	max. 0.0005 %	
chloride (Cl)	max. 0.003 %	
sulfate (SO_4)	max. 0.006 %	
sulfite (as SO_2)	max. 0.001 %	
appearance of the solution	complying	
acidity or alkalinity	complying	

invert sugar		complying
dextrines		complying
reducing sugars		complying
colour index	max.	45
organic volatile impurities (GC)		complying
residual solvents		complying
endotoxin limit (LAL)	max.	250 EU/g

Sulfuric acid fuming Oleum

H₂SO₄ x (SO₃)_x
CAS [8014-95-7]
Density: 1,900 g/cm³

65887 Sulfuric acid fuming, with approx. 20 % SO₃, for analysis

residue on ignition	max.	0.001 %
ammonium (NH ₄)	max.	0.0002 %
arsenic (As)	max.	0.000003 %
iron (Fe)	max.	0.001 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %
total SO ₃	max.	87 %
free SO ₃		20-30 %

Order No.: **10314530** (1 L glass bottle)

Sulfuric acid

H₂SO₄
M = 98.08 g/mol
CAS [7664-93-9]
EC number 2316395
Density: ca. 1,84 g/cm³
Kp: ca. 295 - 315 °C

Signal word: Danger

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P301 + P330 +
P331, P302 + P352, P304 + P340, P305 + P351 + P338



66131 Sulfuric acid 95-97 %, for analysis, Reag. ACS, Reag. ISO, Reag.Ph.Eur., for determination of mercury

assay		95-97 %
appearance		complying
residue on ignition	max.	0.0005 %
ammonium (NH ₄)	max.	0.0002 %
silver (Ag)	max.	0.000002 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000005 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.000005 %
calcium (Ca)	max.	0.00002 %
cadmium (Cd)	max.	0.000002 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000005 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.00001 %
germanium (Ge)	max.	0.000005 %
mercury (Hg)	max.	0.0000005 %
potassium (K)	max.	0.00001 %

Order No.: **10316741** (1 L HDPE-bottle)

lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.000005 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.000005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000002 %
titanium (Ti)	max.	0.000001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.000001 %
heavy metals (as Pb)	max.	0.0001 %
chloride (Cl)	max.	0.000001 %
nitrate (NO ₃)	max.	0.000002 %
phosphate (PO ₄)	max.	0.000005 %
KMnO ₄ red. matter (as SO ₂)	max.	0.0002 %
APHA	max.	10

65884 Sulfuric acid 95-97 %, for analysis, Reag. ISO, Reag. Ph. Eur.

assay		95-97 %
residue on ignition	max.	0.0005 %
ammonium (NH ₄)	max.	0.0002 %
silver (Ag)	max.	0.000002 %
aluminium (Al)	max.	0.000005 %
arsenic (As)	max.	0.000001 %
barium (Ba)	max.	0.000005 %
beryllium (Be)	max.	0.000001 %
bismuth (Bi)	max.	0.000005 %
calcium (Ca)	max.	0.000002 %
cadmium (Cd)	max.	0.000002 %
cobalt (Co)	max.	0.000001 %
chromium (Cr)	max.	0.000005 %
copper (Cu)	max.	0.000001 %
iron (Fe)	max.	0.000001 %
germanium (Ge)	max.	0.000005 %
mercury (Hg)	max.	0.000001 %
potassium (K)	max.	0.000001 %
lithium (Li)	max.	0.000001 %
magnesium (Mg)	max.	0.000005 %
manganese (Mn)	max.	0.000001 %
molybdenum (Mo)	max.	0.000002 %
sodium (Na)	max.	0.000005 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000002 %
strontium (Sr)	max.	0.000002 %
titanium (Ti)	max.	0.000001 %
thallium (Tl)	max.	0.000005 %
vanadium (V)	max.	0.000001 %
zinc (Zn)	max.	0.000005 %
zirconium (Zr)	max.	0.000001 %
heavy metals (as Pb)	max.	0.0001 %
chloride (Cl)	max.	0.000001 %
nitrate (NO ₃)	max.	0.000002 %
phosphate (PO ₄)	max.	0.000005 %

Order No.: **10314696** (1 L HDPE-bottle)
10320403 (1 L glass bottle)
10314470 (2,5 L HDPE-bottle)
10320404 (2,5 L glass bottle)

KMnO ₄ red. matter (as O)	max.	0.0002 %
APHA	max.	10
KMnO ₄ red. matter (as SO ₂)	max.	0.0005 %
appearance		complying

65988 Sulfuric acid 0,5 mol/l, volumetric solution Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315797** (1 L HDPE-bottle)

65986 Sulfuric acid 0,25 mol/l, volumetric solution Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315794** (5 L HDPE-bottle)

65987 Sulfuric acid 0,05 mol/l, volumetric solution Reag. Ph. Eur.

factor	1.000 ±0.001
BAM/EMPA ref.-material	effektive
BAM/EMPA Certificate no.	effektive
Traceable to NIST SRM	effektive

Order No.: **10315796** (1 L HDPE-bottle)

L(+)-Tartaric acid 2,3-Dihydroxybutanedioic acid

C ₄ H ₆ O ₆	Precautionary statements (prevention): P281
M = 150.09 g/mol	
CAS [87-69-4]	
EC number 2017660	
Density: ca. 1,76 g/cm ³	
F: 210 °C	

65842 L(+)-Tartaric acid for analysis, Reag. ISO, Reag. Ph. Eur.

assay (calc. to the dried substance)	99.5-101.0 %
spec.rotation ([α] ₂₀ /D _c =20 in H ₂ O)	+12.0-+12.8 °
water insoluble matter	max. 0.005 %
loss on drying (105°C)	max. 0.1 %
sulfated ash	max. 0.01 %
calcium (Ca)	max. 0.002 %
copper (Cu)	max. 0.0005 %
iron (Fe)	max. 0.0005 %
lead (Pb)	max. 0.0002 %
zinc (Zn)	max. 0.0005 %
heavy metals (as Pb)	max. 0.0005 %
chloride (Cl)	max. 0.0005 %
sulfate (SO ₄)	max. 0.015 %
oxalate (C ₂ O ₄)	complying
oxalic acid	max. 0.02 %
phosphate (PO ₄)	max. 0.001 %
appearance of the solution	complying

Order No.: **10313945** (1 KG HDPE-bottle)

Tetrahydrofuran THF, Tetramethylene oxide, Oxalane

C₄H₈O

M = 72.11 g/mol

CAS [109-99-9]

EC number 2037268

Density: 0,888 g/cm³

Kp: 65 °C

F: -24 °C

Signal word: Danger

Supplemental: EUH019

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P304 + P340, P305 +

P351 + P338, P308 + P313



65735 Tetrahydrofuran B&J Brand, for liquid chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
peroxides (as H ₂ O ₂)	max.	0.02 %
transmittance at 245 nm	min.	60 %
transmittance at 275 nm	min.	90 %
transmittance from 315 nm	min.	99 %

Order No.: **10300082** (1 L glass bottle)
10300084 (2,5 L glass bottle)
10301273 (7 L stainless steel drum)
10302027 (45 L stainless steel drum)
10323193 (190 L SST drum, 0.5 bar)

65815 Tetrahydrofuran for spectroscopy

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0002 meq/g
alkalinity	max.	0.0002 meq/g
peroxides (as H ₂ O ₂)	max.	0.05 %
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 245 nm	min.	60 %
transmittance at 275 nm	min.	90 %
transmittance at 285 nm	min.	95 %
transmittance from 305 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10311274** (1 L glass bottle)
10304844 (200 L stainless steel drum)

65734 Tetrahydrofuran dried (max. 0,005 % H₂O), for analysis, stabilized

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.005 %
free acid (as CH ₃ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %

Order No.: **10300080** (1 L glass bottle)
10301271 (2,5 L glass bottle)
10301272 (7 L stainless steel drum)
10302024 (45 L stainless steel drum)

magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
peroxides (as H ₂ O ₂)	max.	0.005 %

65777 Tetrahydrofuran for analysis, Reag. ACS, stabilized

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
free acid (as CH ₃ COOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
peroxides (as H ₂ O ₂)	max.	0.001 %
APHA	max.	20

Order No.: **10315843** (1 L glass bottle)
10304226 (2,5 L glass bottle)
10311125 (25 L steel drum)
10304232 (200 L metal drum)

65782 Tetrahydrofuran extra pure, stabilized with 2,6-di-tert.-butyl-4-methylphenol(approx. 250 mg/l)

assay (GC)	min.	99 %
water (Karl Fischer)	max.	0.1 %
free acid (as CH ₃ COOH)	max.	0.002 %
peroxides (as H ₂ O ₂)	max.	0.01 %

Order No.: **10315060** (1 L glass bottle)
10304291 (2,5 L glass bottle)
10309589 (25 L steel drum)
10309588 (200 L metal drum)

Tetramethylene oxide → Tetrahydrofurane

TFA → Trifluoroacetic acid

THF → Tetrahydrofurane

Tin(II) chloride-2-hydrate Tin dichloride dihydrate, Stannous chloride

Cl₂Sn x 2 H₂O

M = 225.63 g/mol

CAS [10025-69-1]

EC number 2318680

Density: 2,710 g/cm³

Signal word: Danger

Precautionary statements (prevention): P260, P281

Precautionary statements (reaction): P301 + P330 +
P331, P302 + P352, P304 + P340, P305 + P351 + P338



66111 Tin(II) chloride-2-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	98 %
insoluble in hydrochloric acid	max.	0.005 %
ammonium (NH ₄)	max.	0.002 %
arsenic (As)	max.	0.0001 %
calcium (Ca)	max.	0.005 %
copper (Cu)	max.	0.001 %
iron (Fe)	max.	0.002 %
potassium (K)	max.	0.005 %
magnesium (Mg)	max.	0.005 %
manganese (Mn)	max.	0.0005 %
sodium (Na)	max.	0.005 %
nickel (Ni)	max.	0.0005 %
lead (Pb)	max.	0.005 %
other heavy metals (as Pb)	max.	0.01 %
sulfate (SO ₄)	max.	0.002 %
subst. not precip. by H ₂ S (SO ₄)	max.	0.05 %

Order No.: **10315884** (0,500 KG HDPE-bottle)
10315885 (1 KG HDPE-bottle)

Tin dichloride → Stannous chloride anhydrous

Tin dichloride dihydrate → Tin (II) chloride -2-hydrate

Toluene Methylbenzene, Phenylmethane

C₇H₈

M = 92.14 g/mol

CAS [108-88-3]

EC number 2036259

Density: 0,864 - 0,868 g/cm³

Kp: 109 - 112 °C

F: 6 °C

Signal word: Danger

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P301 + P330 + P331,
P302 + P352, P304 + P340, P308 + P313

**65736 Toluene B&J Brand, for liquid chromatography**

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
thiophene	max.	0.0005 %
transmittance at 290 nm	min.	60 %
transmittance at 310 nm	min.	90 %
transmittance from 350 nm	min.	99 %

Order No.: **10301274** (1 L glass bottle)
10300086 (2,5 L glass bottle)
10301275 (7 L stainless steel drum)
10302029 (45 L stainless steel drum)

65828 Toluene GC Plus, for analysis of pesticides, dioxines, furanes and PCBs

assay (GC)	min.	99.7 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.02 %
suitability for residue analysis	max.	5 ng/l
determination of P/N	max.	5 ng/l
Suit.f.GC-MS of dioxines,furanes,PCP		complying

Order No.: **10315845** (1 L glass bottle)
10313901 (2,5 L glass bottle)
10313902 (7 L stainless steel drum)
10313903 (200 L stainless steel drum)

65742 Toluene GC, for gas chromatography

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.02 %
suitability for residue analysis	max.	5 ng/l

Order No.: **10301311** (1 L glass bottle)
10301312 (2,5 L glass bottle)
10301313 (7 L stainless steel drum)
10302037 (45 L stainless steel drum)

65768 Toluene for spectroscopy

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
suitability for IR spectroscopy		complying
suitability for UV spectroscopy		complying
transmittance at 285 nm	min.	10 %
transmittance at 290 nm	min.	60 %
transmittance at 300 nm	min.	80 %
transmittance at 310 nm	min.	90 %
transmittance from 350 nm	min.	99 %
fluorescence (chinin) at 254 nm	max.	2 ppb
fluorescence (chinin) at 365 nm	max.	1.5 ppb

Order No.: **10311060** (1 L glass bottle)

65745 Toluene dried (max. 0,001% H2O) for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.9 %
density (D 20/20)		0.865-0.869
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.001 %
free acid (as HCl)	max.	0.001 %
free alkali (as NaOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000001 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
S-compounds (as S)	max.	0.003 %
thiophene	max.	0.0001 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10301346** (1 L glass bottle)
10301347 (2,5 L glass bottle)
10302040 (45 L stainless steel drum)
10300919 (200 L stainless steel drum)

65752 Toluene for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay (GC)	min.	99.7 %
density (D 20/20)		0.865-0.869
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.02 %
free acid (as HCl)	max.	0.001 %
free alkali (as NaOH)	max.	0.001 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000001 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
S-compounds (as S)	max.	0.003 %
benzene (GC)	max.	0.01 %
thiophene	max.	0.0001 %
reaction against H ₂ SO ₄		complying
APHA	max.	10

Order No.: **10314134** (1 L glass bottle)
10303809 (2,5 L glass bottle)
10324359 (5 L ALU-bottle)
10311033 (25 L steel drum)
10303810 (200 L metal drum varnized)

65533 Toluene extra pure

assay (GC)	min.	99.8 %
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.03 %
benzene (GC)	max.	0.02 %

Order No.: **10304084** (2,5 L glass bottle)
10303924 (25 L steel drum)
10289273 (173 KG metal drum varnized)

Trichloromethane Chloroform

CHCl ₃	Signal word: Warning
M = 119.38 g/mol	Precautionary statements (prevention): P201, P260, P281
CAS [67-66-3]	Precautionary statements (reaction): P301 + P330 + P331,
EC number 2006638	P302 + P352, P308 + P313
Density: 1,48 g/cm ³	
Kp: 60 - 62 °C	

**65737 Trichloromethane B&J Brand, ACS, for liquid chromatography, stabilized**

assay (GC)	min.	99.9 %
non-volatile matter	max.	0.0003 %
water (Karl Fischer)	max.	0.01 %
acidity	max.	0.0001 meq/g
alkalinity	max.	0.0002 meq/g
lead (Pb)	max.	0.05 ppm
free chlorine		complying

Order No.: **10301276** (1 L glass bottle)
10300088 (2,5 L glass bottle)
10301277 (7 L stainless steel drum)
10302030 (45 L stainless steel drum)
10313894 (200 L stainless steel drum)

free acid and chloride		complying
acetone,aldehydes (Nebler test)		complying
reaction against H ₂ SO ₄		complying
transmittance at 245 nm	min.	15 %
transmittance at 250 nm	min.	50 %
transmittance at 255 nm	min.	75 %
transmittance at 260 nm	min.	90 %
transmittance from 280 nm	min.	99 %
absorbance		complying
APHA	max.	10

65804 Trichloromethane for analysis, Reag. ISO, Reag. Ph. Eur., stabilized with approx. 1 % ethanol

assay (GC)		99.0-99.4 %
boiling range		60-62 °C
density (D 20/20)		1.476-1.483
non-volatile matter	max.	0.0005 %
water (Karl Fischer)	max.	0.01 %
free acid (as HCl)	max.	0.00005 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %
calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000005 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.000005 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
chloride (Cl)	max.	0.0001 %
free chlorine (Cl)	max.	0.00001 %
aldehyd.,ketones(as CH ₃ COCH ₃)	max.	0.005 %
carbonyl compounds (as CO)	max.	0.005 %
dichloromethane (GC)	max.	0.01 %
ethanol (GC)		0.6-1.0 %
tetrachloroethene (GC)	max.	0.01 %
tetrachloromethane (GC)	max.	0.01 %
trichloroethene (GC)	max.	0.01 %
reaction against H ₂ SO ₄		complying
appearance of the substance		complying
suitability f.det.w. dithizone ISO		complying

Order No.: **10314133** (1 L glass bottle)
10304424 (2,5 L glass bottle)
10311522 (25 L steel drum)
10304425 (200 L metal drum)

65803 Trichloromethane extra pure, meets analytical specification of DAB 9, BP, stabilized with about 1 % ethanol

assay (GC)		99-99.4 %
boiling range		60-62 °C
density (D 20/20)		1.479-1.489
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
chloride (Cl)	max.	0.0001 %
ethanol (GC)		0.6-1.0 %

Order No.: **10304422** (1 L glass bottle)
10304421 (2,5 L glass bottle)
10311508 (25 L steel drum)
10304423 (200 L metal drum)

appearance of the substance	complying
acid. or alk. react. impurities	complying
reaction against H ₂ SO ₄	complying
free chlorine	complying
foreign chlorine compounds	complying
aldehydes	complying

Triethanolamine Tris-(2-hydroxyethyl)-amin


C ₆ H ₁₅ NO ₃	Precautionary statements (prevention): P281
M = 149.19 g/mol	
CAS [102-71-6]	
EC number 2030498	
Density: ca. 1,12 g/cm ³	
Kp: ca. 360 °C	
F: 180 °C	

65925 Triethanolamine for analysis

assay (GC)	min.	99 %
solidification range		20-22 °C
water (Karl Fischer)	max.	0.1 %
sulfated ash	max.	0.005 %
iron (Fe)	max.	0.0001 %
heavy metals (as Pb)	max.	0.0001 %
chloride (Cl)	max.	0.0001 %
sulfate (SO ₄)	max.	0.002 %
diethanolamine (GC)	max.	0.5 %
ethanolamine	max.	0.1 %

Order No.: **10314941** (1 L glass bottle)

Triethylamine N,N-Diethylethanamine


C ₆ H ₁₅ N	Signal word: Danger	
M = 101.19 g/mol	Precautionary statements (prevention): P210, P260, P281	
CAS [121-44-8]	Precautionary statements (reaction): P301 + P330 + P331,	
EC number 2044694	P302 + P352, P304 + P340, P305 + P351 + P338	
Density: 0,73 g/cm ³		
Kp: ca. 90 °C		
F: -11 °C		

65896 Triethylamine pure

assay (GC)	min.	99 %
non-volatile matter	max.	0.003 %

Order No.: **10314925** (0,500 L glass bottle)
10314628 (1 L glass bottle)

Trifluoroacetic acid TFA

C ₂ HF ₃ O ₂	Signal word: Danger	
M = 114.02 g/mol	Precautionary statements (prevention): P260, P281	
CAS [76-05-1]	Precautionary statements (reaction): P301 + P330 +	
EC number 2009293	P331, P302 + P352, P304 + P340, P305 + P351 + P338	
Density: ca. 1,48 g/cm ³		
Kp: 72 °C		

65924 Trifluoroacetic acid pure

assay (alkalimetric)	min.	99 %
identity (IR)		complying
appearance		complying
APHA	max.	25

Order No.: **10314930** (0,500 L glass bottle)

Trimethylcarbinol → tert.-Butanol
 2,2,4-Trimethylpentne → iso-Octane
 Tris-buffer → Tris-(hydroxymethyl)-aminomethane
 Tris-(2-hydroxyethyl)-amine → Triethanolamine

Tris-(hydroxymethyl)-aminomethane Trometamol, Aminomethylidine trimethanol, 2-Amino-2-hydroxymethyl-1.3-pro-C₄H₁₁NO₃

M = 121.14 g/mol

CAS [77-86-1]

EC number 2010644

Kp: 219 - 220 °C

Signal word: Warning**Precautionary statements (prevention):** P260, P281**Precautionary statements (reaction):** P302 + P352, P304
+ P340, P305 + P351 + P338, P308 + P313**65837 Tris-(hydroxymethyl)-aminomethane for analysis, buffer substance**

assay	min.	99.5 %
melting range		168-171 °C
water (Karl Fischer)	max.	0.5 %
sulfated ash	max.	0.05 %
pH (0,1 mol/l)		10.3-10.8
iron (Fe)	max.	0.0005 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %
sulfate (SO ₄)	max.	0.0005 %

Order No.: **10315323** (0,500 KG HDPE-bottle)
10313895 (1 KG HDPE-bottle)**Tween 20** Polyoxyethylene sorbitanmonolaurate

CAS [9005-64-5]

Density: ca. 1,100 g/cm³

Kp: > 100 °C

F: 110 °C

66117 Tween 20

hydroxyl value	96-108
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Order No.: **10315949** (1 L glass bottle)**Tween 80** Polyoxyethylene sorbitan monooleate

CAS [9005-65-6]

Density: ca. 1,08 g/cm³

Kp: > 100 °C

F: 149 °C

66113 Tween 80

hydroxyl value

65-80

Order No.: **10315890** (1 L glass bottle)**Urea**CH₄N₂O

M = 60.06 g/mol

CAS [57-13-6]

EC number 2003155

65936 Urea for analysis, Reag. ACS, Reag. Ph. Eur.

identity		complying
assay	min.	99.5 %
assay (calc. to the dried substance)		99-101 %
melting range		132-135 °C
water insoluble matter	max.	0.01 %
loss on drying (105°C, 1 h)	max.	1.0 %
sulfated ash	max.	0.01 %
ammonium (NH ₄)	max.	0.05 %
alkalinely reacting substances		complying
iron (Fe)	max.	0.0002 %
heavy metals (as Pb)	max.	0.0005 %
chloride (Cl)	max.	0.0005 %
sulfate (SO ₄)	max.	0.001 %
biuret(carbamylurea)	max.	0.1 %
appearance of the solution		complying

Order No.: **10315015** (0,250 KG HDPE-bottle)
10315266 (1 KG HDPE-bottle)
10316128 (2,5 KG HDPE-bottle)
10319564 (25 KG FIBREBOARD BOX)

WaterH₂O**Precautionary statements (prevention):** P281

M = 18.02 g/mol

CAS [7732-18-5]

EC number 2317912

Density: 0,998 g/cm³

Kp: 100 °C

65821 Water B&J Brand LC-MS, for liquid chromatography

particles > 0,5 µm		effektive P/ml
non-volatile matter	max.	0.001 %
silver (Ag)	max.	0.1 ppm
aluminium (Al)	max.	0.5 ppm
barium (Ba)	max.	0.1 ppm
calcium (Ca)	max.	0.1 ppm
cadmium (Cd)	max.	0.05 ppm
cobalt (Co)	max.	0.02 ppm
chromium (Cr)	max.	0.02 ppm
copper (Cu)	max.	0.02 ppm
iron (Fe)	max.	0.1 ppm
potassium (K)	max.	0.1 ppm
magnesium (Mg)	max.	0.1 ppm
manganese (Mn)	max.	0.02 ppm
sodium (Na)	max.	0.1 ppm

Order No.: **10591629** (1L glass bottle)

nickel (Ni)	max.	0.02 ppm
lead (Pb)	max.	0.1 ppm
tin (Sn)	max.	0.1 ppm
zinc (Zn)	max.	0.1 ppm
chloride (Cl)	max.	0.000001 %
fluoride (F)	max.	0.000001 %
nitrate (NO ₃)	max.	0.00001 %
sulfate (SO ₄)	max.	0.00001 %
transmittance at 200 nm	min.	95 %
transmittance from 230 nm	min.	99 %
HPLC-gradient at 210 nm	max.	5 mAU
HPLC-gradient at 254 nm	max.	1 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb
suitability for the LC-MS		complying

65738 Water super gradient grade B&J Brand, for liquid chromatography

non-volatile matter	max.	0.001 %
chloride (Cl)	max.	0.000001 %
fluoride (F)	max.	0.000001 %
nitrate (NO ₃)	max.	0.00001 %
sulfate (SO ₄)	max.	0.00001 %
HPLC-gradient at 210 nm	max.	3 mAU
HPLC-gradient at 254 nm	max.	1 mAU
fluorescence (chinin) at 254 nm	max.	1 ppb
fluorescence (chinin) at 365 nm	max.	1 ppb

Order No.: **10301278** (1 L glass bottle)
10299335 (2,5 L glass bottle)
10301279 (7 L stainless steel drum)
10300382 (18 L stainless steel drum)
10302032 (45 L stainless steel drum)
10301937 (200 L stainless steel drum)

65834 Water GC, for gas chromatography

non-volatile matter	max.	0.0005 %
suitability for residue analysis	max.	5 ng/l
determination of P/N	max.	5 ng/l

Order No.: **10313921** (1 L glass bottle)
10313922 (2,5 L glass bottle)

Xylene Dimethylbenzene, Xylol

C₈H₁₀

M = 106.17 g/mol

CAS [1330-20-7]

EC number 2155357

Density: 0,865 - 0,867 g/cm³

Kp: 137 - 140 °C

F: 26 °C

Signal word: Warning

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P302 + P352, P304 + P340, P308 + P313



65814 Xylene (mixture of isomers) for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

total isomers (GC)	min.	96 %
boiling range		137-140 °C
density (D 20/4)		0.865-0.867
non-volatile matter	max.	0.001 %
water (Karl Fischer)	max.	0.05 %
aluminium (Al)	max.	0.00005 %
boron (B)	max.	0.000002 %
barium (Ba)	max.	0.00001 %

Order No.: **10315083** (1 L glass bottle)
10304770 (2,5 L glass bottle)
10311432 (25 L steel drum)
10304841 (200 L metal drum)

calcium (Ca)	max.	0.00005 %
cadmium (Cd)	max.	0.000002 %
cobalt (Co)	max.	0.000002 %
chromium (Cr)	max.	0.000002 %
copper (Cu)	max.	0.000002 %
iron (Fe)	max.	0.00001 %
magnesium (Mg)	max.	0.00001 %
manganese (Mn)	max.	0.000002 %
nickel (Ni)	max.	0.000002 %
lead (Pb)	max.	0.00001 %
tin (Sn)	max.	0.00001 %
zinc (Zn)	max.	0.00001 %
benzene (GC)	max.	0.1 %
ethyl benzene (GC)	max.	4 %
toluene (GC)	max.	0.1 %
S-compounds (as S)	max.	0.003 %
reaction against H ₂ SO ₄		complying

65783 Xylene (mixture of isomers) extra pure

total isomers (GC)	min.	96 %
refractive index (n 20/D)		1.4960-1.4990
non-volatile matter	max.	0.002 %

Order No.: **10304292** (2,5 L glass bottle)
10311133 (25 L steel drum)
10311134 (200 L metal drum)

o-Xylene

C₈H₁₀

M = 106.17 g/mol

CAS [95-47-6]

EC number 2024222

Density: 0,88 g/cm³

Kp: 143 - 145 °C

F: 30 °C

Signal word: Warning

Precautionary statements (prevention): P210, P260, P281

Precautionary statements (reaction): P302 + P352, P304 + P340, P308 + P313



65847 o-Xylene extra pure

assay (GC)	min.	99 %
non-volatile matter	max.	0.005 %

Order No.: **10314118** (1 L glass bottle)
10314119 (2,5 L glass bottle)

Zinc sulfate-7-hydrate

H₁₄O₁₁SZn

M = 287.56 g/mol

CAS [7446-20-0]

EC number 2317933

Density: ca. 1,957 g/cm³

Signal word: Danger

Precautionary statements (prevention): P273, P281

Precautionary statements (reaction): P301 + P330, P305 + P351 + P338, P308 + P313



66136 Zinc sulfate-7-hydrate for analysis, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

assay	min.	99.5 %	Order No.: 10319012 (1 KG HDPE-bottle)
water insoluble matter	max.	0.005 %	
pH (5 %, 20°C)		4.4-5.6	
arsenic (As)	max.	0.00005 %	
calcium (Ca)	max.	0.001 %	
cadmium (Cd)	max.	0.0002 %	
copper (Cu)	max.	0.0005 %	
iron (Fe)	max.	0.0005 %	
potassium (K)	max.	0.001 %	
magnesium (Mg)	max.	0.001 %	
manganese (Mn)	max.	0.0002 %	
sodium (Na)	max.	0.0005 %	
lead (Pb)	max.	0.0005 %	
chloride (Cl)	max.	0.0005 %	
total N	max.	0.0005 %	
appearance of the solution		complying	

66142 Zinc sulfate-7-hydrate extra pure, meets analytical specification of Ph. Eur., BP, USP, FCC

assay		99.0-103.0 %	Order No.: 10581303 (1 KG HDPE-bottle)
pH (5 %, 20°C)		4.4-5.6	
arsenic (As)	max.	0.0002 %	
calcium (Ca)	max.	0.005 %	
cadmium (Cd)	max.	0.0002 %	
iron (Fe)	max.	0.001 %	
mercury (Hg)	max.	0.0002 %	
potassium (K)	max.	0.01 %	
magnesium (Mg)	max.	0.005 %	
sodium (Na)	max.	0.01 %	
lead (Pb)	max.	0.0004 %	
selenium (Se)	max.	0.001 %	
chloride (Cl)	max.	0.005 %	
appearance of the solution		complying	
alkalis/earth alkalis (as SO ₄)	max.	0.5 %	
acidity		complying	
residual solvents		complying	

Acetic Acid	40	Ethyl ether, Ethyl oxide, Ether	72
Acetic acid dimethylamide	75	Ethyl methyl ketone, Methyl ethyl ketone, MEK	59
Acetic acid ethyl ester, Acetic ether	83	Ethylene glycol	85
Acetic acid n-butyl ester	60	Ethylenediaminetetraacetic acid	84
Acetone	42	Ethylenediaminetetraacetic acid di-sodium salt-2-hydrate	85
Acetonitrile	45	Formaldehyde solution	86
Ammonia hydroxide Solution	49	Formaline	86
Ammonia Solution	49	Formamide	86
Ammonium Acetate	50	Formic acid amide, Methane amide	86
Ammonium Chloride	50	Glycerol	87
Ammonium iron(II) sulfate-6-hydrate	51	Glycolethylether, 1,4-Diethylene dioxide,	
Ammonium sulfate	51	1,4-Dioxo cyclohexane	77
Ammonium thiocyanate	52	Hexahydrobenzene, Naphtene, Hexamethylene	67
Antichlor	140	Hexamethylenetetramine	90
Benzene	53	Hydrazinium sulfate	94
Benzyl alcohol	54	Hydrochloric acid	95
Boric Acid	54	Hydrogen peroxide	99
Buffer solution	55	Hydroxytricarballic acid	65
1-Butanol	56	iso-Hexane	94
2-Butanol	57	iso-Octane	109
2-Butanone (MEK)	59	iso-Pentane	112
Calcium Chloride	63	Isopropyl alcohol, Isopropanol, Dimethylcarbinol,	
Calcium Chloride-2-hydrate	63	2-Hydroxypropane	124
Cesium Chloride	64	Isopropyl ether, 2,2' Oxybispropane, 2,2 Propoxypropane	74
Chlorobenzene	64	L(+)-Ascorbic acid	52
1-Chlorobutane	64	L(+)-Tartaric acid	143
Chloroform	148	Magnesium acetate-4-hydrate	100
Citric acid-1-hydrate	65	Magnesium chloride-6-hydrate	101
Cobalt(II) chloride-6-hydrate	65	Magnesium sulfate-7-hydrate	101
Copper(II) chloride-2-hydrate	66	Methanol	102
Copper(II) sulfate-5-hydrate	66	1-Methyl-2-pyrrolidone	106
Cyclohexane	67	2-Methylbutan	112
Cyclohexanone	69	4-Methyl-2-pentanone	106
Cyclohexatriene	53	Methyl alcohol, Carbinol, Methynol, Wood alcohol	102
D(+)-Glucose monohydrate	87	Methyl cyanide, Cyanomethane	45
D(+)-Sucrose	140	Methyl tert-butyl ether, MTBE	61
1,2-Dichlorobenzene	69	Methylbenzene, Phenylmethane	146
Dichloromethane	69	Methylene chloride	69
1,3-Dimethylpropane, Diethylmethane	111	Methyl-iso-butyl ketone	106
1,4-Dioxan	77	Monochlorbenzene, Benzene chloride, Phenyl chloride	64
Diethyl ether	72	N,N-Diethylethanamine	150
2,3-Dihydroxybutanedioic acid	143	N,N-Dimethylacetamide	75
Di-iso-propyl ether	74	N,N-Dimethylformamide	75
Dimethyl sulfoxide	76	Natron	132
Dimethylbenzene, Xylol	153	n-Butyl acetate	60
Disodium dihydrogen ethylenediaminetetraacetate	85	n-Butyl alcohol, Propylcarbinol	56
di-Sodium hydrogen phosphate	132	n-Caproylhydride, n-Hexylhydride	91
di-Sodium hydrogenphosphate-2-hydrate	133	n-Dipropylmethane, n-Heptylhydride, 1-Methyl hexane	89
Disodiumpentacyanonitrosylferrate(II) dihydrate,		n-Heptane	89
Nitroprusside sodium, Sodium nitroferrocyanide	137	n-Hexane	91
DMF, Formic acid dimethylamide	75	Nitric acid	106
DMSO	76	Nitric acid sodium salt	136
EDTA	84	NMP	106
Ethanol	78	n-Pentane	111
Ethyl acetate	83	n-Propyl alcohol, Ethylcarbinol, 1-Hydroxypropane,	
Ethyl alcohol, Methylcarbinol	78	n-Propanol	123

o-Chlorobenzene	69	Sodium nitrate	136
Oleum	141	Sodium nitrite	136
ortho-Phosphoric acid	117	Sodium nitroprusside	137
o-Xylene	154	Sodium salicylate	137
Paraffin viscid	110	Sodium sulfate	137
Perchloric acid	113	Sodium sulfite anhydrous	138
Petroleum benzene	113	Sodium tetraborate-10-hydrate	139
Phenylcarbinol	54	Sodium thiosulfate solution	140
Pimelic ketone	69	Sodium thiosulfate-5-hydrate	139
Polyoxyethylene sorbitan monooleate	151	Stannous chloride anhydrous	140
Polyoxyethylene sorbitanmonolaurate	151	Sulfuric acid	141
Potassium carbonate	118	Sulfuric acid fuming	141
Potassium chloride	118	tert.-Butanol	58
Potassium dihydrogen phosphate	119	tert.-Butyl alcohol, 2-Methyl-2-propanol, Trimethylcarbinol	58
Potassium hexacyanoferrate(II)-3-hydrate	120	tert.-Butyl methyl ether	61
Potassium hexacyanoferrate(III)	119	Tetrahydrofuran	144
Potassium hydroxide	120	TFA	150
Potassium iodide	122	THF, Tetramethylene oxide, Oxalane	144
Potassium sulfate	122	Tin dichloride	140
1,2,3-Propanetriol	87	Tin dichloride dihydrate, Stannous chloride	145
1-Propanol	123	Tin(II) chloride-2-hydrate	145
2-Propanol	124	Toluene	146
2-Propanone, Dimethyl ketone	42	Trichloromethane	148
Quartz (sand)	126	Triethanolamine	150
sec.-Butyl alcohol	57	Triethylamine	150
Silica gel orange	127	Trifluoroacetic acid	150
Silicon dioxide	126	2,2,4-Trimethylpentane, Isobutyltrimethylmethane	109
Silver nitrate	127	Tris-(2-hydroxyethyl)-amin	150
Silver sulfate	128	Tris-(hydroxymethyl)-aminomethane	151
Soda	129	tri-Sodium citrate-2-hydrate	131
Soda caustic	134	Trometamol, Aminomethylidine trimethanol, 2-Amino-2-hydroxymethyl-1.3-propanediol, TRIS-buffer	151
Sodium acetate anhydrous	128	Tween 20	151
Sodium acetate-3-hydrate	129	Tween 80	151
Sodium carbonate anhydrous	129	Urea	152
Sodium chloride	130	Urotropin	90
Sodium dihydrogen phosphate	132	Water	152
Sodium hydrogen carbonate	132	Xylene	153
Sodium hydroxide	134	Zinc sulfate-7-hydrate	154
Sodium iodide	135		

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General Terms and Conditions of Sale

Acceptance

Seller's performance is conditioned on Buyer agreeing to each of these General Terms and Conditions ("Terms and Conditions") and the other provisions contained in or incorporated by reference into the sales agreement form to which they are attached (collectively, the "Agreement"). Seller objects to and rejects any and all terms or conditions that are additional to or different from those set forth in the Agreement, whether such additional or different terms arise from prior, contemporaneous or subsequent oral or written communications, course of performance, course of dealing or usage of the trade, or otherwise.

Invoice; Payment and Credit

Seller will invoice Buyer upon shipment of Product. If Buyer fails to make payment in strict accordance with the Payment

terms set forth in the Agreement, then Seller may, in addition to all other remedies, (a) immediately withhold shipments of any additional Product until the delinquent amounts plus interest, transportation and storage are paid; (b) repossess Product which has not been paid for; (c) charge interest at 1.5% per month or the maximum legal rate, if lower, for each month or part thereof on which payment is not timely made; (d) declare breach and terminate the Agreement in accordance with the terms hereunder and/or (e) recover all costs of collection, including reasonable attorneys' fees, disbursements and litigation costs. Seller may, in its discretion, require Buyer to pay before delivery if Seller determines that Buyer's credit-worthiness is impaired. Seller may recover for each delivery as a separate transaction without reference to any other delivery. Buyer shall pay any undisputed amounts. Buyer may not set off amounts claimed against Seller in a different transaction or against one of Seller's affiliates.

Buyer's Obligations

Buyer is responsible for selection, use, handling, transportation (if applicable) and disposal of Product. Seller's price excludes, and Buyer is responsible for, all governmental taxes (including without limitation sales, use, excise, value added and other similar taxes), duties and fees in connection with the purchase, sale, transportation, storage or disposal of Product or otherwise resulting from Seller's performance of the Agreement, whether now or hereafter imposed, levied, collected, withheld or assessed. If Seller is required to impose, levy, collect, withhold or assess any such taxes, duties or fees on any transaction under the Agreement, then Seller will invoice Buyer therefor, unless at the time of order placement, Buyer furnishes Seller with an exemption certificate or other documentation sufficient to verify exemption from such taxes, duties or fees. Buyer will (a) review handling or safety information Seller provides; (b) promptly convey such information to persons potentially exposed to the Product; and (c) follow safe handling, use, storage, transportation, and disposal practices. Seller may terminate the Agreement immediately if Seller believes Buyer is breaching this provision.

Volumes and Delivery

Each delivery shall stand as a separate contract and the failure of any delivery is not a breach of the Agreement as to others. The word "delivery" under the Agreement shall include tender of delivery of the Product to Buyer. Unless otherwise specified, Product will be delivered Ex Works (Incoterms 2000) Seller's plant in accordance with Seller's standard lead times then in effect. Unless otherwise expressly provided in the sales agreement, title to any Product will pass from Seller to Buyer upon full payment of the Price. If the price includes freight, Seller may increase the price on 15 days notice to Buyer to reflect increased transportation and handling costs. In addition, Seller may discontinue deliveries of any Product, the manufacture, sale or use of which in its opinion would involve patent infringement. Upon delivery, Buyer assumes full responsibility and liability for compliance with government laws, rules and regulations relating to the Product, including without limitation those relating to unloading, discharge, storage, handling use and/or disposal of the Product. Seller shall not be required to deliver in any month more than the amount expressly specified herein or more than the pro rata amount of Seller's maximum obligation. By the first day of each quarter of the Contract Year, Buyer will provide Seller with a forecast representing its best goodfaith estimate of expected orders of Product over each of the upcoming four quarters (the first quarter of which will be broken down by month), to be updated on a rolling

quarterly basis, with the three immediately upcoming monthly forecasts deemed to be binding purchase obligations of Buyer (the "Forecast"). Notwithstanding any other provision to the contrary, any requested or agreed delivery dates will be considered as purely indicative and SELLER WILL NOT COMPENSATE BUYER FOR ANY DELAYS AGAINST SUCH DELIVERY DATES. However, if it is determined that a delivery date is mandatory, then any failure to provide a Forecast by the specified dates will relieve Seller of any obligation to deliver Product during such period. If Buyer has not taken delivery of Buyer's minimum purchase obligation by the end of the applicable contract term, Seller may within thirty (30) days thereafter invoice Buyer for the shortfall and if so required by Buyer, deliver the Product shortfall on delivery terms to be agreed.

Packaging

Seller may, in its sole discretion, agree to special packaging, handling, transportation (including expediting) and/or insurance requested by Buyer, and if so, they shall be for Buyer's account and added to the invoice. Buyer shall: (a) properly dispose of all disposable containers; (b) return to Seller within the free unloading time allowed empty, non-disposable containers and equipment provided by Seller ("Equipment") in the condition received, normal wear and tear excepted; and (c) be responsible for and promptly pay Seller's customary demurrage or detention charges for Equipment returned after the applicable free unloading period. Seller shall neither use Equipment for any other purpose nor re-use, re-consign, or transfer it.

Inspection and Claims

Any claims (including without limitation for shortage or because of nonconformities) ascertainable upon inspection, must be particularized and made in writing to Seller within 30 days of delivery to Buyer; otherwise, the Product shall be deemed to have been accepted by Buyer. Any revocation of acceptance of all or any part of the Product on the basis of any latent non-conformity or other reason must particularize each non-conformity or other reason and be made in writing to Seller within 6 months of delivery of the Product to Buyer. Claims or revocations of acceptance that are not particularized, or which are made later than the applicable period specified in this section, will be deemed waived by Buyer. Upon Seller's request, Buyer must promptly make available to Seller for inspection and testing any Product upon which Buyer has made a claim. Any action for breach by either party, other than for non-payment, is time barred if not commenced within one year after the date of delivery, or due date of delivery in the

event of non-delivery, of the particular shipment upon which such claim is based. Buyer shall accept delivery of quantities within 10% of those ordered, but need only pay for quantities actually delivered. Seller's Product measurements shall govern unless proven in error. No weight claims or credits will be allowed unless gross shipment weight discrepancies exceed 0.5% for packaged Product or 1% for bulk Product. No heel credits will be given.

Limited Warranty

Seller's warranties are exclusively limited to the following: (A) Buyer shall obtain good title to Product sold hereunder; (B) at delivery such Product will conform to Seller's specifications attached to this sales agreement; and (C) Product delivered hereunder does not infringe the claim of any patent extant as of the date of the Agreement covering Product itself, but Seller does not warrant against infringement which might arise by the use of such Product alone or in any combination with other materials, by the operation of any process or otherwise. SELLER MAKES NO OTHER REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, AND IN PARTICULAR, SELLER EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE EVEN IF THAT PURPOSE IS KNOWN TO SELLER, AND DISCLAIMS ANY WARRANTIES THAT MAY ARISE FROM COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF THE TRADE. ANY APPLICATION INFORMATION OR ASSISTANCE WHICH SELLER MAY FURNISH TO BUYER IS GRATUITOUS AND SHALL IN NO WAY BE DEEMED PART OF THE SALE OF PRODUCT HEREUNDER OR A WARRANTY OF THE RESULTS OBTAINED THROUGH USE OF SUCH PRODUCT.

Limitation of Liability and Remedy

SELLER'S TOTAL LIABILITY UNDER ANY THEORY OF RECOVERY, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), WARRANTY, INDEMNITY OR OTHERWISE, SHALL NOT EXCEED THE TOTAL PRICE PAID (OR PAYABLE) TO SELLER FOR THE SHIPMENT IN QUESTION. BUYER'S EXCLUSIVE REMEDY WILL, AT SELLER'S OPTION, BE THE REPLACEMENT OF NON-CONFORMING PRODUCT OR THE REFUND OF THE PARTICULAR SHIPMENT'S PURCHASE PRICE. UNDER NO CIRCUMSTANCES WILL SELLER BE LIABLE FOR ANY DAMAGES FOR LOSS OF USE, BUSINESS INTERRUPTION, LOST PROFITS, REVENUE OR OPPORTUNITY, OR FOR ANY INDIRECT, SPECIAL, EXEMPLARY, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL LOSS OR DAMAGES OF ANY KIND OR NATURE.

Force Majeure

Seller shall have no liability for any delay or failure in performance hereunder, in whole or in part, if such delay or failure arises from (a) compliance in good faith with any foreign or domestic governmental regulation or order, whether or not later shown invalid or inapplicable; (b) the occurrence of any contingency the nonoccurrence of which was a basic assumption at the time the Agreement was made, including without limitation, acts of God, fire, accident, riot, war, terrorism, sabotage, equipment failure, embargo, or labor trouble from whatever cause arising, (c) interruption of or delay in transportation, inadequacy or shortage or failure of supply of materials, equipment breakdowns in each case not reasonably foreseeable or due to a failure to repair and outside of Seller's control; (d) increased costs for compliance with environmental protection, health or safety regulations; or (e) any other event or occurrence not within Seller's reasonable control. If any such circumstances affect only a part of Seller's capacity, Seller may allocate production and deliveries among its customers and its own requirements as Seller may fairly and reasonably determine. Quantities affected by this paragraph may, at the option of either party, be eliminated from the Agreement without liability, but the Agreement shall remain otherwise unaffected. If the circumstances of this paragraph continue for more than 90 days, either party may terminate the Agreement without penalty upon written notice to the other party. For the avoidance of doubt, this Force Majeure provision shall not excuse payment under any circumstances by Buyer of invoices issued by Seller under the Agreement

Manufacturing Hardship

If Seller's total cost of production and transportation of the Product increases by more than 5% over Seller's costs on the Effective Date, Seller may, on 15 days notice ("Hardship Notice") increase prices to maintain its original economic return. These changes will be considered accepted unless Buyer objects before the effective date of the Hardship Notice. Within 5 days of Buyer's objection, if any, Seller will advise whether (a) Seller will continue to sell on the previous terms or (b) Seller wishes to negotiate a mutually acceptable price with Buyer. Either party may terminate the Agreement immediately by notice if the negotiations have not been finalized within 20 days of the Hardship Notice; provided, however, that Seller may during such 20 day period agree to sell on the previous terms. The Price in effect prior to the Hardship Notice will prevail during such negotiations.

Termination

In addition to the rights of termination under the Force Majeure and Manufacturing Hardship provisions above, either party may terminate the Agreement upon written notice if: (a) if the other party is in material breach of the Agreement and does not cure such breach (i) within three (3) days of notice in the event of a payment delinquency or (ii) within thirty (30) days of notice for any other material breach; or (b) if the other party (i) ceases to function as a going concern, (ii) makes an assignment for the benefit of creditors, or (iii) becomes the subject of any proceeding under applicable bankruptcy, receivership, insolvency or similar laws instituted by or against such party. Termination shall not affect any debt, claim or cause of action accruing to any party against the other before the termination and the rights of termination provided in this clause are not exclusive of other remedies to which either party may be entitled.

Notices

All notices must be in writing, addressed to the party's contact noted on the sales agreement form and shall be delivered by one of the methods referenced in this provision. Notice shall be deemed given on the date of (a) the applicable confirmation if delivered by fax, by hand or by overnight courier or (b) receipt or rejection, if sent certified mail, return receipt requested.

Confidentiality

Buyer will keep confidential the terms and conditions of the Agreement and the parties' performance hereunder, as well as any preceding negotiations.

Governing Law and Arbitration

SWISS LAW (WITHOUT GIVING EFFECT TO ITS CONFLICTS OF LAW PRINCIPLES) GOVERNS THE AGREEMENT. THE UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS, 1980 (OR ANY SUCCESSOR) SHALL NOT APPLY. Any controversy or claim that may arise out of or in connection with the Agreement or the individual sales transactions resulting therefrom that cannot be resolved after good faith negotiations shall be submitted to the exclusive jurisdiction of the competent courts in Geneva (Switzerland).

General

Any assignment without the written consent of the other party shall be void except for an assignment to an affiliate of the

Seller or if in connection with the sale or transfer of all or a substantial portion of Seller's business to which the Agreement relates. The Agreement constitutes the complete, exclusive agreement of the parties for the sale and purchase of Product and supersedes all prior and contemporaneous oral or written communications relating to its subject matter. Any modification must be in a writing signed by each party's duly authorized representative. No failure to exercise any right hereunder shall be deemed a waiver. If any provision of the Agreement is unenforceable, the surviving provisions will be unaffected and there will be substituted one or more provisions as similar in terms as may be enforceable under applicable law. All provisions which by their nature should apply beyond the Term will remain in force after expiration or termination of the Agreement, including but not limited to the sections dealing with Invoice, Payment and Credit; Inspection and Claims; Limited Warranty; Limitation of Liability and Remedy and Governing Law and Arbitration.

Notice: All statements, information and data given herein are believed to be accurate and reliable, but are presented without guaranty, warranty or responsibility of any kind, expressed or implied. Statements or suggestions concerning our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The use should not assume that all safety measures are indicated, or that other measures may not be required.

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