RCI Labscan GROUP

RCI Labscan RCI Labscan Limited | EOS scientific | RSAC RCI SYSTEMS & ADVANCED CHEMICALS

PRODUCT CATALOG

2nd Edition

RCI Labscan
GROUP

RCI Labscan
GROUP

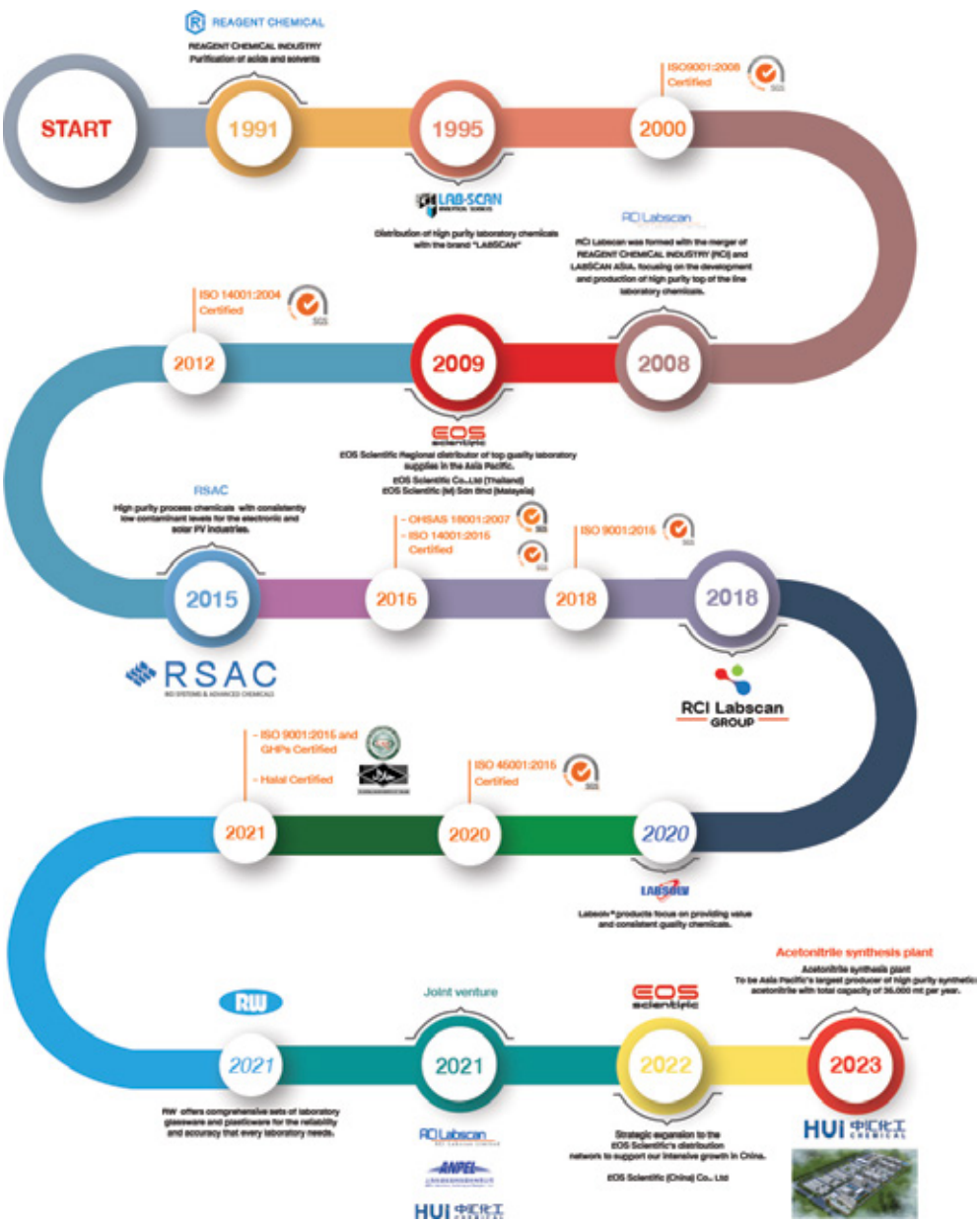
COMPANY PROFILE – RCI Labscan Group

We're an industry leader

Established in 1991, RCI Labscan Group is a conglomerate of companies, including RCI Labscan Limited, EOS Scientific, and RCI Systems & Advanced Chemicals. We manufacture and distribute high-quality laboratory equipment and chemicals for businesses in a variety of industries. In doing so, our company has grown to become one of the Asia Pacific leading chemical suppliers.

A timeline of our history

Over three decades of innovation and product development



COMPANY PROFILE - RCI Labscan Limited

Company History
RCI LABSCAN Limited

was established in 2008, from the acquisition and merger of Labscan Asia Co., Ltd and Reagent Chemical Industry Co., Ltd. The intensive investment also included the acquisition of Technology and Capability from USA, Europe (UK and Germany), and Asia. The company is already the preferred OEM supplier to a number of global multinational companies. With latest validity equipment, our Quality Control Laboratory is recognized as the Final Quality Testing Lab by some of its Multi-Nation Customer (MNC).

Our products are made available to customers under the brand RCI Labscan for chemical products with various laboratories as well as industrial applications.

With world-class technology and expertise, a strong commitment to excellence in quality, service and value to customers, RCI Labscan has grown rapidly to become one of the leading manufacturers and distributors of purified reagents in Asia

Labscan Asia Co., LTD. (Established in 1995)

- Joint venture with VS General Chem Group and Labscan Ireland Ltd.
- Production of HIGH PURITY Laboratory Reagents.
- Strong in OEM business and Research/Laboratories in Asia.

Reagent Chemical Co., LTD. (Established in 1991)

- Plant designed to produce Electronic Grade and Laboratory Grade ACIDS and SOLVENTS.
- Strong in OEM and Electronics Industry.

VISION AND MISSION

OUR VISION

TOP ASIA'S LEADING-EDGE PURIFICATION SOLUTIONS

OUR MISSION

Commited to precise, high-purity chemicals through quality and innovation.

COMPANY CORE VALUES

Core Values: Great Place to Live and Work

Growth Mindset, Partnership, Teamwork, Leadership, Integrity, Well-Being

External Values:

We are committed to Excellent Quality, Service and Value for our customers.

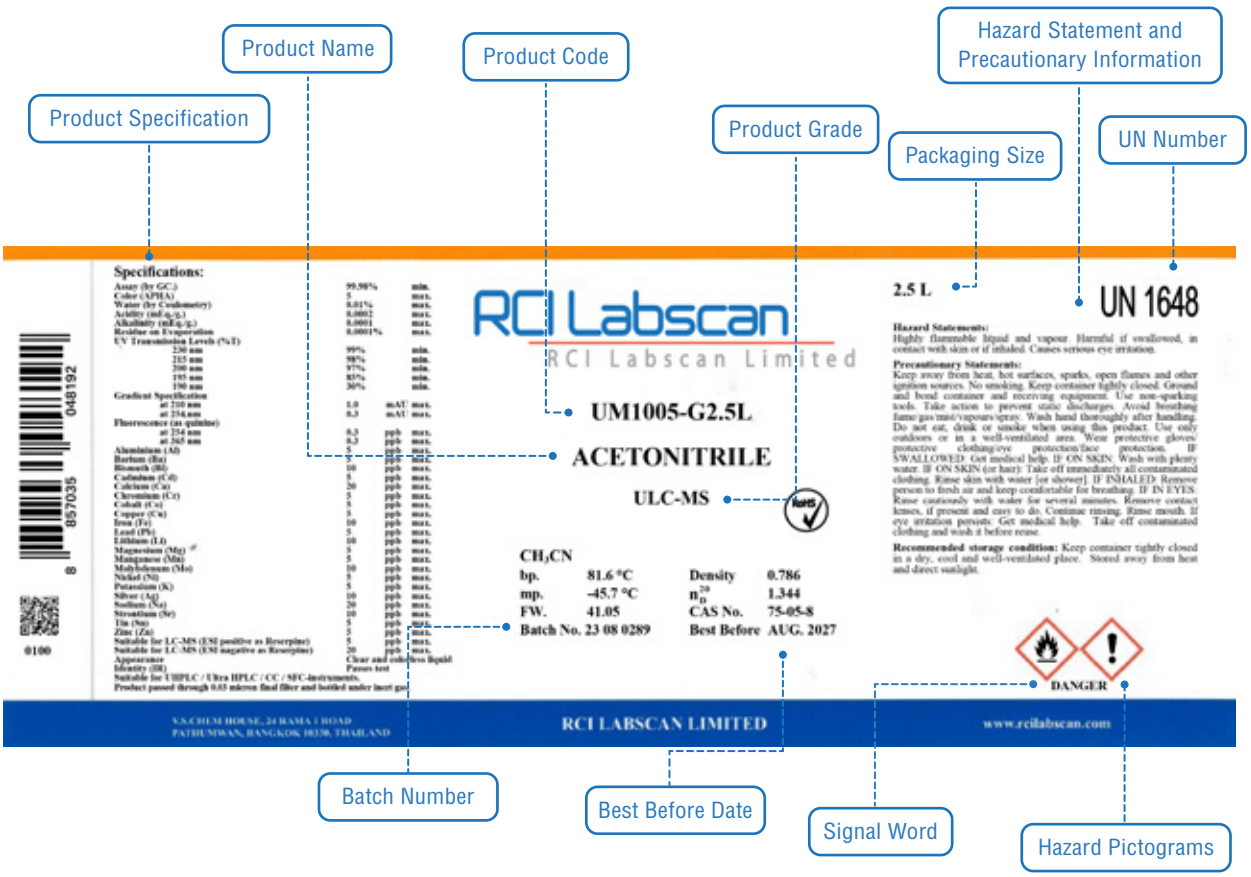
OUR SAFETY AND HEALTH STEWARDSHIP

- Our goal is to achieve a Zero-Harm Workplace. We care about our employees, our community and our environment.
- Our safety and health programs take into consideration the health factors which impact our employees, contractors, their families and our community.
- It is everyone's responsibility at RCI Labscan (including contractors and visitors) to understands and fully comply with our safety standards.

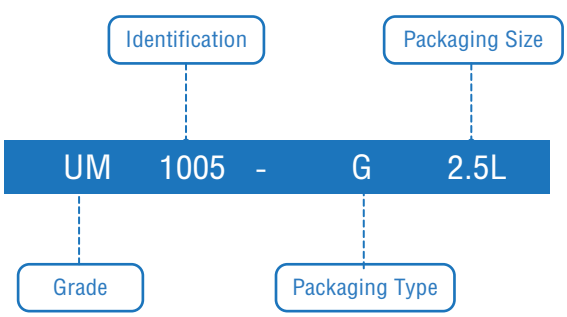
CERTIFICATE OF ACHIEVEMENT

RCI LABSCAN LABEL

Our Label is designed to provide the necessary up to date information and is in compliance with the GHS system (Globally Harmonized System of Classification and Labelling of Chemicals)



PRODUCT CODE GUIDE
EXAMPLE: UM1005-G2.5L



PACKAGING

"Packaging for safety, convenience and product quality"

RCI Labscan offers a comprehensive range of packaging which is designed for safety, environmental protection, convenient handling and storage. All packaging are guaranteed to preserve the integrity of our products.

Amber Glass Bottles:

Suitable for photosensitive Chemicals.

We offer 500ml., 1 Litre, 2.5 Litre and 4 Litre size
75 ml., 250 ml for powder
500 ml. and 1 Litre: 6 bottles per box
2.5 Litre and 4 Litre: 4 bottles per box
1 Litre for Nitric Acid 90% 95% 97% 98%: 4 bottles per box

Plastic Bottles:

Plastic Bottles are supplied when chemical properties of the content and bottle are compatible, because they minimize the risk of breakage, are lighter in weight as well as being easier and more economical to transport.

We offer 25 grams, 100 grams, 500 grams, 1 kg.,
500 ml., 1 Litre, 2.5 Litre and 4 Litre sizes
500 ml. and 1 Litre: 6 bottles per box
2.5 Litre and 4 Litre: 4 bottles per box
25 grams and 100 grams: 4 bottles per box
500 grams and 1 kg.: 6 bottles per box

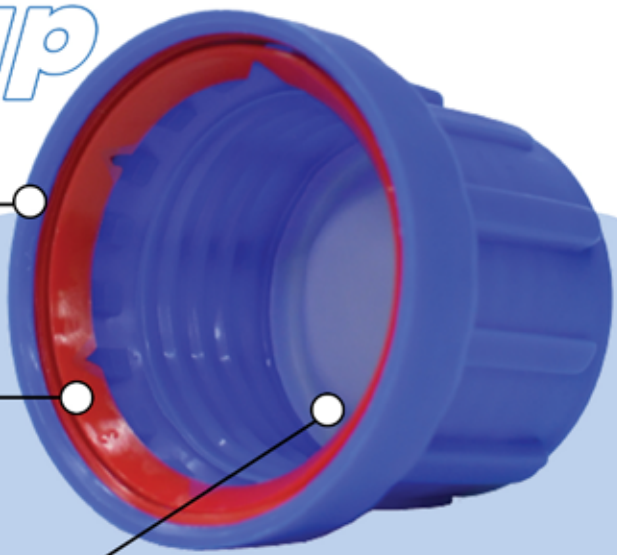
Drums for Bulk Quantities:

We currently offer the following sizes:
20 Litre HDPE drum
200 Litre HDPE drum
25 Litre Metal drum
200 Litre metal drum

The Advantage of Our Signature **Bottle Cap**

Ensure Safety and Quality Assurance with RCI Labscan

The Advantage of Our Signature Bottle Cap



Outer cap

Material : Polypropylene
Function : To seal and secure the contents of the chemical bottle.

Pilfer proof ring

Material : Polypropylene
Function : It remains on the bottle after opening and various options are available for this closure such as spray insert, rough groove, child resistant, pourer insert and cone sealing.

Inner plug and Teflon sheet

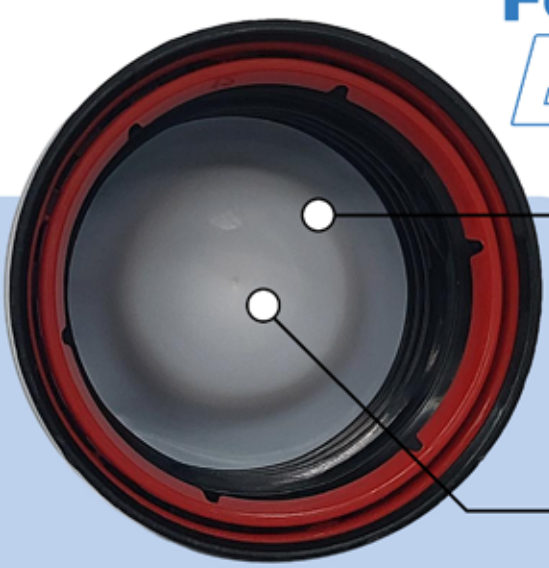
Material : Low-Density Polyethylene (Inner plug) Polytetrafluorcethylene (Tefion sheet)
Function : It is a component with an inner plug that comes into contact with resistant to various types of chemicals, to enhances the sealing of chemicals for improved performance and prevent chemical leakage.

Solvent Product *Acid Product*

Bottle Package

Glass 2.5L, 4L Plastic 2.5L, 4L

Formic Acid Bottle Cap



Inner plug and Teflon sheet

Material : High-Density Polyethylene (Inner plug) Polytetrafluorcethylene (Tefion sheet)
Function : materials specifically chosen for their chemical resistance to organic acids and their durability in venting applications..

Venting foil and sealing bowl with hole

Function : Includes a venting system designed to release pressure due to the decomposition of formic acid (gaseous CO_2), reducing the risk of container bulging or leakage.

Bottle Package

Glass 500 mL, 1L, 2.5 L Plastic 1L, 2.5L

PRODUCT DETAILS

RCI Labscan products can be used either as general analytical reagents or as ingredients for specialized industrial formulation.

RCI Labscan products are used in a wide range of industries: pharmaceuticals, healthcare, agribusiness, electronics, petroleum and gas, and in research by private organizations and public bodies such as universities. Applications include HPLC, GC, UV spectroscopy and LC-MS.

GRADE DESCRIPTION

1. Pharma Grade (BP)
   - Products that meet the requirement of British Pharmacopeia (BP), European Pharmacopoeia (EP), United States Pharmacopoeias (USP) and the National Formulary (NF)
   - Products meet the requirements for their pharmaceutical processing
2. Analytical Grade (AR)
   - For general analytical applications
   - Purity meets the requirement of ACS Standard
3. RCI Premium Grade (RP)
   - High purity solvents and reagents with low level of impurities, conform to ISO, Pharma, ACS standard
   - Suitable for laboratory and special analytical techniques
4. High Performance Liquid Chromatography Grade (LC)
   - For analytical and preparative separation
   - Mobile phase in PHLC or LC technique including gel permeation chromatography
   - Mobile phase for different type of detector
   - Use in the wavelength between 230-190 nm (Far UV region)
   - For isocratic technique: low UV absorption
5. Gradient Grade: Supergradient Grade (SG) , Ultragradient (UG)
   - Mobile phase for gradient analysis technique
   - Low baseline drift and low UV absorption
6. Liquid Chromatography-Mass Spectrometry Grade (LM)
   - High purity solvent with low levels of trace metals
   - Suitable for LCMS analytical technique
7. Anhydrous Grade (AH)
   - Low moisture solvent for anhydrous applications
8. UV-IR Grade (IR)
   - High purity solvent for UV-IR Spectroscopy
   - High purity solvent with low UV absorption
9. Pesticide Grade (PC)
   - For pesticide and insecticide residue analysis
   - Suitable for extraction, isolation and preconcentration technique
   - For environment analysis by capillary GC and GC-MS application
   - For Volatile Organic Analysis (soil, water and solid waste samples)
10. Purge & Trap Grade (PT)
    - Suitable for Volatile Organic Residue Analysis by GC-MS
11. Headspace GC Grade (HS)
    - High purity solvents designed to ensure optimization for Headspace GC applications
    - Specifications are strictly following the USP, Ph.Eur. and ICH guidelines
    - Elimination of all major interference peaks in the elution range of target analytes

12. LV-GC
- Suitable for ultimate organic trace analysis; checked for ppb levels of Poly-Aromatic Hydrocarbons (PAH's), Furan, PCB's, Pesticides.
- For analysis of hydrocarbons in the range of C10 to C40.
- For residual organic contaminants.

13. Peptide Synthesis
- Suitable for Solid Phase Peptide Synthesis.

RCI Labscan offers a broad range of chemicals for use in the electronic industry.

Applications include etching, cleaning and drying.

ELECTRONIC GRADE: SEMIG, ELECTROPURE, EXTROPURE, ELECTRO EXTRA, VLSI

11. Semig Grade (SM)
- High quality acids and solvents for electronic industrial applications.
- Low levels of metallic impurities.
- Suitable for trance metal analysis.

12. Electropure Grade (EP)
- High purity acids and solvents for electronic industrial applications.
- Low levels of metallic impurities.
- Suitable for trace metal analysis.

13. Extropure Grade (XP)
- High purity solvents, free of Silicone, DOP and Amide

14. Electro Extra Grade (EX)
- High purity acids for electronic industrial applications.

15. VLSI Grade (VL)
- Very high purity acids and solvents for electronic industrial applications.
- Very low levels of metallic impurities.
- Suitable for trace metal analysis

Custom Purification

RCI Labscan is your reliable partner for custom made products.

Code	Product Name	Page
AR 1444	Acetic Acid 10%, AR	24
AR 0999	Acetic Acid 50%, AR	24
AR 1338	Acetic Acid 60%, AR.	25
AR 1000	Acetic Acid 96%, AR	25
EP 1000	Acetic Acid 96%, Electropure	26
AR 1002	Acetic Acid Glacial, AR	27
RP 1002	Acetic Acid Glacial, RCI Premium	27
LC 1002	Acetic Acid Glacial, HPLC	28
SM 1002	Acetic Acid Glacial, Semig	28
EP 1002	Acetic Acid Glacial, Electropure	29
VL 1002	Acetic Acid Glacial, VLSI	30
BP 1002	Acetic Acid Glacial, Pharma	30
AR 1003	Acetone, AR	31
RP 1003	Acetone, RCI Premium	32
LC 1003	Acetone, HPLC	33
LC 1004	Acetone, HPLC Plus	33
GM 1003	Acetone, GC-MS	34
PC 1003	Acetone, Pesticide	34
LV 1003	Acetone, LVI-GC	34
IR 1003	Acetone, UV-IR	35
PS 1003	Acetone, Peptide Synthesis	35
SM 1003	Acetone, Semig	35
EP 1003	Acetone, Electropure	36
XP 1003	Acetone, Extropure	37
VL 1003	Acetone, VLSI	38
BP 1003	Acetone, Pharma	39
AR 1005	Acetonitrile, AR	40
RP 1005	Acetonitrile, RCI Premium	40
LC 1005	Acetonitrile, HPLC	41
LC 1219	Acetonitrile, HPLC Plus	41
LC 1007	Acetonitrile, Far UV for HPLC	42
SG 1005	Acetonitrile, Super Gradient for HPLC	42
SG 1006	Acetonitrile, Ultra Gradient for HPLC	43
LM 1005	Acetonitrile, LC-MS	44
UM 1005	Acetonitrile, ULC-MS	45
PC 1005	Acetonitrile, Pesticide	45
LV 1005	Acetonitrile, LVI-GC	46
IR 1005	Acetonitrile, UV-IR/HPLC	46
AH 1008	Acetonitrile, Anhydrous (10 ppm)	46
AH 1009	Acetonitrile, Anhydrous (30 ppm)	47
AH 1010	Acetonitrile, Anhydrous (100 ppm)	47
DN 1008	Acetonitrile, Diluent for DNA synthesis.	47
PS 1005	Acetonitrile, Peptide Synthesis	47
BP 1005	Acetonitrile, Pharma	48
LC 1386	Acetonitrile, For LC Analysis	48

Code	Product Name	Page
AR 1231	Ammonium Acetate, AR	49
AR 1011	Ammonium Chloride, AR	49
AR 1012	Ammonium Ferrous (II) Sulfate Hexahydrate, AR	50
AR 1304	Ammonium Hydroxide 25% Solution, AR	51
RP 1304	Ammonium Hydroxide 25% Solution, RCI Premium	51
EP 1304	Ammonium Hydroxide 25% Solution, Electropure	52
BP 1304	Ammonium Hydroxide 25% Solution, Pharma	52
AR 1404	Ammonium Hydroxide 28% Solution, AR	53
AR 1472	Ammonium Hydroxide 28% Solution, AR	53
RP 1404	Ammonium Hydroxide 25% Solution, RCI Premium	54
EP 1404	Ammonium Hydroxide 28% Solution, Electropure	54
AR 1013	Ammonium Molybdate Tetrahydrate, AR	55
AR 1014	Ammonium Persulfate, AR	55
AR 1015	Ammonium Sulfate, AR	56
AR 1299	Ascorbic Acid, AR	56
AR 1486	Benzyl Alcohol, AR	57
HS 1486	Benzyl Alcohol, For Headspace GC Analysis	57
AR 1233	Borax, AR (di-sodium tetraborate decahydrate)	58
AR 1375	Boric Acid 1% Solution, AR	58
AR 1234	Boric Acid, AR	59
BP 1234	Boric Acid, Pharma	59
AR 1251	Bromocresol Green Indicator, AR	59
GN 1016	Buffer Solution pH 4.0	60
GN 1017	Buffer Solution pH 4.0 (Red)	60
GN 1018	Buffer Solution pH 4.01	60
GN 1019	Buffer Solution pH 6.86	61
GN 1020	Buffer Solution pH 7.0	61
GN 1021	Buffer Solution pH 7.0 (Yellow)	61
GN 1302	Buffer Solution pH 7.0 (Green)	62
GN 1036	Buffer Solution pH 9.0	62
GN 1470	Buffer Solution pH 9.0 (Yellow)	62
GN 1022	Buffer Solution pH 10.0	63
GN 1023	Buffer Solution pH 10.0 (Blue)	63
GN 1285	Buffer Solution pH 10.01	64
GN 1286	Buffer Solution pH 12.45	64
AR 1024	Butan-1-ol, AR	65
RP 1024	Butan-1-ol, RCI Premium	65
LC 1024	Butan-1-ol, HPLC	66
IR 1024	Butan-1-ol, UV-IR	66
LC 1497	1-Butanesulfonic Acid Sodium Salt Anhydrous, HPLC	67
AR 1025	n-Butyl Acetate, AR	67
RP 1025	n-Butyl Acetate, RCI Premium	68
LC 1025	n-Butyl Acetate, HPLC	68
EP 1025	n-Butyl Acetate, Electropure	69
VL 1025	n-Butyl Acetate, VLSI	70

Code	Product Name	Page
AR 1235	Calcium Chloride Dihydrate, AR	71
BP 1235	Calcium Chloride Dihydrate, Pharma	71
AR 1026	Chlorobenzene, AR	72
RP 1026	Chlorobenzene, RCI Premium	72
AR 1031	1-Chlorobutane, AR	73
RP 1031	1-Chlorobutane, RCI Premium	73
LC 1031	1-Chlorobutane, HPLC	74
AR 1027E	Chloroform, AR	74
RP 1027E	Chloroform, RP	75
LC 1027E	Chloroform, HPLC	75
GM 1027E	Chloroform, GC-MS	76
PC 1027E	Chloroform, Pesticide	76
LV 1027E	Chloroform, LVI-GC	76
IR 1027E	Chloroform, UV-IR	77
PS 1027E	Chloroform, Peptide Synthesis	77
AH 1028E	Chloroform, Anhydrous (10 ppm)	77
AH 1029E	Chloroform, Anhydrous (50 ppm)	78
EP 1027E	Chloroform, Electropure	78
BP 1027E	Chloroform, Pharma	79
AR 1236	Citric Acid Monohydrate, AR	80
BP 1236	Citric Acid Monohydrate, Pharma	80
CS 1506	CleanD-α	81
GN 1032	Cleaning Solution S	81
AR 1272	Copper (II) Sulfate Pentahydrate, AR	82
AR 1033	Cyclohexane, AR	82
RP 1033	Cyclohexane, RCI Premium	83
LC 1033	Cyclohexane, HPLC	83
PC 1033	Cyclohexane, Pesticide	84
LV 1033	Cyclohexane, LVI-GC	84
IR 1033	Cyclohexane, UV-IR	84
XP 1033	Cyclohexane, Extropure	85
AR 1034	Cyclohexanone, AR	86
RP 1034	Cyclohexanone, RCI Premium	86
AR 1037	Cyclopentane 95%, AR	87
AR 1035	Cyclopentane 99%, AR	87
RP 1035	Cyclopentane 99%, RCI Premium	88
IR 1035	Cyclopentane 99%, UV-IR	88
AR 1038	1,2-Dichloroethane, AR	89
RP 1038	1,2-Dichloroethane, RCI Premium	89
LC 1038	1,2-Dichloroethane, HPLC	90
IR 1038	1,2-Dichloroethane, UV-IR	90
AR 1040A	Dichloromethane, AR	91
RP 1040A	Dichloromethane, RCI Premium	91
LC 1040A	Dichloromethane, HPLC	92
LC 1041A	Dichloromethane, HPLC Plus	92

Code	Product Name	Page
GM 1040A	Dichloromethane, GC-MS	93
PC 1040A	Dichloromethane, Pesticide	93
LV 1040A	Dichloromethane, LVI-GC	93
IR 1040A	Dichloromethane, UV-IR	94
AH 1042A	Dichloromethane, Anhydrous (10 ppm)	94
AH 1043A	Dichloromethane Anhydrous (50 ppm)	94
PS 1040A	Dichloromethane, Peptide Synthesis	95
EP 1040A	Dichloromethane, Electropure	95
XP 1040A	Dichloromethane, Extropure	96
XP 1323A	Dichloromethane, SDF	96
BP 1040A	Dichloromethane, Pharma	97
AR 1044B	Diethyl Ether, AR	98
AR 1046E	Diethyl Ether, AR	98
AR 1047E	Diethyl Ether, AR	98
RP 1044B	Diethyl Ether, RCI Premium	99
RP 1046E	Diethyl Ether, RCI Premium	99
RP 1047E	Diethyl Ether, RCI Premium	100
LC 1044B	Diethyl Ether, HPLC	100
LC 1046E	Diethyl Ether, HPLC	101
PC 1046E	Diethyl Ether, Pesticide	101
LV 1046E	Diethyl Ether, LVI-GC	101
IR 1044B	Diethyl Ether, UV-IR	102
AH 1045B	Diethyl Ether, Anhydrous (50 ppm)	102
PS 1044B	Diethyl Ether, Peptide Synthesis	102
EP 1047E	Diethyl Ether (stabilized with 1% Ethanol), Electropure	103
HS 1467	1,3-Dimethyl-2-Imidazolidinone, For Headspace GC Analysis	103
AR 1050	Dimethylacetamide, AR	104
RP 1050	Dimethylacetamide, RCI Premium	104
LC 1050	Dimethylacetamide, HPLC	105
GC 1050	Dimethylacetamide, For GC Analysis	105
HS 1050	Dimethylacetamide, For Headspace GC Analysis	106
HS 1513	Dimethylacetamide, GC-HS Plus for Headspace GC Analysis	106
PS 1050	Dimethylacetamide, Peptide Synthesis	107
AR 1051	Dimethylformamide, AR	107
RP 1051	Dimethylformamide, RCI Premium	108
LC 1051	Dimethylformamide, HPLC	108
GC 1051	Dimethylformamide, For GC Analysis	109
PC 1051	Dimethylformamide, Pesticide	109
HS 1051	Dimethylformamide, For Headspace GC Analysis	109
HS 1514	Dimethylformamide, GC-HS Plus for Headspace GC Analysis	110
IR 1051	Dimethylformamide, UV-IR	110
AH 1052	Dimethylformamide, Anhydrous (100 ppm)	111
AH 1053	Dimethylformamide (with Molecular seive), Anhydrous (100 ppm)	111
PS 1051	Dimethylformamide, Peptide Synthesis	111
BP 1051	Dimethylformamide, Pharma	111

Code	Product Name	Page
AR 1054	Dimethylsulphoxide, AR	112
RP 1054	Dimethylsulphoxide, RCI Premium	112
LC 1334	Dimethylsulphoxide, HPLC	113
GC 1334	Dimethylsulphoxide, For GC Analysis	113
HS 1334	Dimethylsulphoxide, For Headspace GC Analysis	114
HS 1515	Dimethylsulphoxide, GC-HS Plus for Headspace GC Analysis	114
IR 1334	Dimethylsulphoxide, UV-IR	115
AH 1055	Dimethylsulphoxide, Anhydrous (200 ppm)	115
AR 1057	1,4-Dioxan, AR	116
AR 1059B	1,4-Dioxan, AR	116
RP 1057	1,4-Dioxan, RCI Premium	116
RP 1059B	1,4-Dioxan, RCI Premium	117
LC 1057	1,4-Dioxan, HPLC	117
IR 1057	1,4-Dioxan, UV-IR	118
AH 1058	1,4-Dioxan, Anhydrous (50 ppm)	118
AH 1060B	1,4-Dioxan, Anhydrous (50 ppm)	118
AR 1252	Eriochrome Black T Indicator, AR	119
AR 1296	Ethanol 50%, AR	119
AR 1382	Ethanol 50%, AR	120
AR 1312	Ethanol 70%, AR	120
AR 1409	Ethanol 95% (5% Methanol), AR	121
AR 1511	Ethanol 95% (5% water), AR	122
AR 1361	Ethanol 96%, AR	123
BP 1361	Ethanol 96%, Pharma	123
AR 1383	Ethanol 96%, AR	124
AR 1069	Ethanol, AR	125
RP 1069	Ethanol, RCI Premium	126
BP 1069	Ethanol, Pharma	126
AR 1380	Ethanol, AR	127
RP 1380	Ethanol, RCI Premium	128
BP 1380	Ethanol, Pharma	128
LC 1380	Ethanol, HPLC	129
SG 1380	Ethanol, Super Gradient for HPLC	130
AR 1070	Ethyl Acetate, AR	131
RP 1070	Ethyl Acetate, RCI Premium	131
LC 1070	Ethyl Acetate, HPLC	132
GM 1070	Ethyl Acetate, GC-MS	132
PC 1070	Ethyl Acetate, Pesticide	132
LV 1070	Ethyl Acetate, LVI-GC	133
IR 1070	Ethyl Acetate, UV-IR	133
AH 1071	Ethyl Acetate, Anhydrous (100 ppm)	133
PS 1070	Ethyl Acetate, Peptide Synthesis	133
AR 1294	Ethylene Glycol, AR	134
AR 1240	EDTA, Disodium Salt Dihydrate, AR	134
GN 1469	EDTA, Disodium Salt Dihydrate, 0.1M (0.2N)	134

Code	Product Name	Page
GN 1471	EDTA, Disodium Salt Dihydrate, 0.05M (0.1N)	135
BP 1240	EDTA, Disodium Salt Dihydrate, Pharma	135
AR 1072M	Formaldehyde 35-40% (stabilized with Methanol), AR	136
AR 1073M	Formaldehyde 37%(stabilized with Methanol), AR	136
AR 1074M	Formaldehyde 40%(stabilized with Methanol), AR	137
AR 1310	Formic Acid 98%, AR	137
AR 1077	Glycine, AR	138
AR 1078	n-Heptane 95%, AR	139
RP 1078	n-Heptane 95%, RCI Premium	139
LC 1078	n-Heptane 95%, HPLC	140
PC 1078	n-Heptane 95%, Pesticide	140
LV 1078	n-Heptane 95%, LVI-GC	140
AR 1079	n-Heptane 97%, AR	141
RP 1079	n-Heptane 97%, RCI Premium	141
AR 1080	n-Heptane 99%, AR	142
RP 1080	n-Heptane 99%, RCI Premium	142
LC 1080	n-Heptane 99%, HPLC	143
PC 1080	n-Heptane 99%, Pesticide	143
LV 1080	n-Heptane 99%, LVI-GC	144
IR 1080	n-Heptane 99%, UV-IR	144
AH 1081	n-Heptane 99%, Anhydrous	144
LC 1082	Heptane Fraction, HPLC	145
LC 1423	1-Heptanesulfonic Acid Sodium Salt Anhydrous, HPLC	145
AR 1083	n-Hexane 95%, AR	146
RP 1083	n-Hexane 95%, RCI Premium	146
LC 1083	n-Hexane 95%, HPLC	147
LC 1084	n-Hexane 95%, HPLC Plus	147
PC 1083	n-Hexane 95%, Pesticide	148
LV 1083	n-Hexane 95%, LVI-GC	148
AR 1085	n-Hexane 99%, AR	149
RP 1085	n-Hexane 99%, RCI Premium	149
LC 1085	n-Hexane 99%, HPLC	150
LC 1086	n-Hexane 99%, HPLC Plus	150
GM 1085	n-Hexane 99%, GC-MS	151
PC 1085	n-Hexane 99%, Pesticide	151
LV 1085	n-Hexane 99%, LVI-GC	151
IR 1085	n-Hexane 99%, UV-IR	152
AH 1087	n-Hexane 99%, Anhydrous	152
AR 1088	Hexane Fraction, AR	152
RP 1088	Hexane Fraction, RCI Premium	153
LC 1088	Hexane Fraction, HPLC	153
AR 1090	Hexanes, AR	154
RP 1090	Hexanes, RCI Premium	154
LC 1090	Hexanes, HPLC	155
LC 1226	Hexanes, HPLC Plus	155

Code	Product Name	Page
XP 1100	Hexanes, Extropure (SDF)	156
XP 1101	Hexanes, Extropure (SDF Low Chloride)	156
LC 1421	1-Hexanesulfonic Acid Sodium Salt Anhydrous, HPLC	157
LC 1422	1-Hexanesulphonic Acid Sodium Salt Monohydrate, HPLC	157
AR 1301	Hydrochloric Acid 3%, AR	158
SM 1301	Hydrochloric Acid 3%, Semig	158
AR 1269	Hydrochloric Acid 4%, AR	159
AR 1102	Hydrochloric Acid 5%, AR	159
SM 1415	Hydrochloric Acid 6%, Semig	160
AR 1103	Hydrochloric Acid 7.5%, AR	161
AR 1320	Hydrochloric Acid 9%, AR	161
AR 1260	Hydrochloric Acid 10%, AR	162
BP 1260	Hydrochloric Acid 10%, Pharma	162
AR 1127	Hydrochloric Acid 18%, AR	163
AR 1229	Hydrochloric Acid 20%, AR	163
AR 1270	Hydrochloric Acid 25%, AR	164
AR 1076	Hydrochloric Acid 30%, AR	164
AR 1104	Hydrochloric Acid 32%, AR	165
RP 1104	Hydrochloric Acid 32%, RCI Premium	165
AR 1105	Hydrochloric Acid 35%, AR	166
AR 1106	Hydrochloric Acid 36%, AR	166
RP 1106	Hydrochloric Acid 36%, RCI Premium	167
AR 1107	Hydrochloric Acid 37%, AR	167
RP 1107	Hydrochloric Acid 37%, RCI Premium	168
SM 1107	Hydrochloric Acid 37%, Semig	168
EP 1107	Hydrochloric Acid 37%, Electropure	169
VL 1107	Hydrochloric Acid 37%, VLSI	170
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AR 1131	Nitric Acid 30%, AR	207
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EP 1137	Nitric Acid 70%, Electropure	215
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AR 1146	n-Pentane 99%, AR	224
RP 1146	n-Pentane 99%, RCI Premium	224
LC 1146	n-Pentane 99%, HPLC	225
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AR 1399	Petroleum Ether 90-120, AR	233
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RP 1150	Petroleum Ether 100-120, RCI Premium	234
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AR 1271	Potassium Hydroxide 30% Solution, AR	239
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LC 1163	Propan-2-ol, HPLC Plus	251
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LM 1162	Propan-2-ol, LC-MS	252
UM 1162	Propan-2-ol, ULC-MS	253
PC 1162	Propan-2-ol, Pesticide	253
LV 1162	Propan-2-ol, LVI-GC	254
IR 1162	Propan-2-ol, UV-IR	254
PS 1162	Propan-2-ol, Peptide Synthesis	254
SM 1162	Propan-2-ol, Semig	255
SM 1163	Propan-2-ol, Semig Plus	255
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XP 1162	Propan-2-ol, Extropure	257
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BP 1247	Sodium Carbonate Anhydrous, Pharma	264
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AR 1179	Stannous (II) Chloride Dihydrate, AR	277
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GN 1194	Sulfuric Acid, 0.1N	278
GN 1195	Sulfuric Acid, 0.2N	278
GN 1196	Sulfuric Acid, 0.4N	278
GN 1197	Sulfuric Acid, 1.0N	278
AR 1362	Sulfuric Acid 5%, AR	279
AR 1461	Sulfuric Acid 8%, AR	279
AR 1181	Sulfuric Acid 10%, AR	280
SM 1280	Sulfuric Acid 20%, Semig	281
AR 1182	Sulfuric Acid 37%, AR	282
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AR 1184	Sulfuric Acid 50%, AR	284
SM 1184	Sulfuric Acid 50%, Semig	284
AR 1228	Sulfuric Acid 59.5%, AR	285
AR 1185	Sulfuric Acid 60%, AR	285
SM 1185	Sulfuric Acid 60%, Semig	286
EP 1185	Sulfuric Acid 60%, Electropure	286
AR 1330	Sulfuric Acid 62.5%, AR	287
AR 1279	Sulfuric Acid 65%, AR	287
AR 1186	Sulfuric Acid 67%, AR	288
AR 1187	Sulfuric Acid 70%, AR	288
AR 1188	Sulfuric Acid 75%, AR	289
VL 1151	Sulfuric Acid 81%, VLSI	290
SM 1189	Sulfuric Acid 89%, Semig	291
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AR 1089	Sulfuric Acid 90-91%, AR	292
AR 1075	Sulfuric Acid 96.0%, AR	293
AR 1191	Sulfuric Acid 96%, AR	293
AR 1341	Sulfuric Acid 96%, AR	294
RP 1191	Sulfuric Acid 96%, RCI Premium	294
SM 1191	Sulfuric Acid 96%, Semig	295
EP 1191	Sulfuric Acid 96%, Electropure	295
EP 1192	Sulfuric Acid 96%, Low Mercury	296
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AR 1193	Sulfuric Acid 98%, AR	298
AR 1367	Sulfuric Acid 98%, AR	298
RP 1193	Sulfuric Acid 98%, RCI Premium	299
SM 1193	Sulfuric Acid 98%, Semig	299
EP 1193	Sulfuric Acid 98%, Electropure	300
EP 1314	Sulfuric Acid 98%, Low Nitrogen	301

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LC 1498	Tetrabutyl Ammonium Hydrogen Sulfate, HPLC	302
AR 1198	Tetrachloroethylene, AR	302
AR 1199	Tetrachloroethylene (Low Hydrocarbon), AR	302
RP 1198	Tetrachloroethylene, RCI Premium	303
RP 1199	Tetrachloroethylene (Low Hydrocarbon), RCI Premium	303
IR 1198	Tetrachloroethylene, UV-IR	303
AR 1203B	Tetrahydrofuran, AR	304
RP 1203B	Tetrahydrofuran, RCI Premium	304
LC 1203B	Tetrahydrofuran, HPLC	305
AH 1201B	Tetrahydrofuran, Anhydrous (20 ppm)	305
AH 1204B	Tetrahydrofuran, Anhydrous (50 ppm)	305
PS 1203B	Tetrahydrofuran, Peptide Synthesis	305
LC 1200	Tetrahydrofuran, HPLC	306
LM 1200	Tetrahydrofuran, LC-MS	306
UM 1200	Tetrahydrofuran, ULC-MS	307
IR 1200	Tetrahydrofuran, UV-IR	307
AH 1202	Tetrahydrofuran, Anhydrous (50 ppm)	308
AR 1207	Toluene, AR	308
RP 1347	Toluene, RCI Premium	309
LC 1347	Toluene, HPLC	309
GM 1347	Toluene, GC-MS	310
PC 1347	Toluene, Pesticide	310
LV 1347	Toluene, LVI-GC	310
IR 1347	Toluene, UV-IR	311
AH 1348	Toluene, Anhydrous	311
PS 1347	Toluene, Peptide Synthesis	311
SM 1207	Toluene, Semig	312
AR 1317	Trichloroacetic Acid, AR	312
AR 1205	Trichloroethylene, AR	313
RP 1205	Trichloroethylene, RCI Premium	313
LC 1205	Trichloroethylene, HPLC	314
AR 1206	2,2,4-Trimethylpentane, AR	314
RP 1206	2,2,4-Trimethylpentane, RCI Premium	315
LC 1206	2,2,4-Trimethylpentane, HPLC	315
PC 1206	2,2,4-Trimethylpentane, Pesticide	316
LV 1206	2,2,4-Trimethylpentane, LVI-GC	316
IR 1206	2,2,4-Trimethylpentane, UV-IR	316
AR 1250	Urea, AR	317
AR 1210	Water, AR	318
GN 1056	Water (Deionized Water)	318
LC 1210	Water, HPLC	319
LM 1210	Water, LC-MS	319
UM 1210	Water, ULC-MS	320
PC 1210	Water, Pesticide	320

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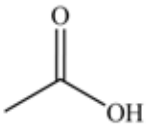
LV 1210	Water, LVI-GC	321
GN 1211	Wijs Solution	321
GN 1212	Wijs Solution 0.1 N	321
AR 1213	Xylene, AR	322
RP 1354	Xylene, RCI Premium	322
SM 1213	Xylene, Semig	323
AR 1214	Zinc Sulfate Heptahydrate, AR	323

ACETIC ACID 10%



CH_3COOH	FW. 60.05	Density =	1.01 kg/L
CAS-No.	64-19-7		
UN No.	2790		
EC No.	200-580-7	EC-Index-No	607-002-00-6
Class:	8	Packing Group:	III

GHS: H315, H319; P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364

Warning

Acetic Acid 10%, AR — Code AR1444

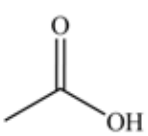
Specifications

Assay (by acidimetry)	10%	min	Chloride (Cl)	0.5	ppm max.
Color (APHA)	10	max.	Sulfate (SO_4)	0.5	ppm max.
Titrable base (mEq./g.)	0.0004	max.	Heavy metals (as Pb)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Arsenic (As)	0.001	ppm max.
Substances reducing dichromate	Passes test		Iron (Fe)	0.2	ppm max.
Substances reducing permanganate	Passes test				

Cat No.	Package	Size
AR1444-G500ML	Glass	500 mL
AR1444-G1L	Glass	1 L
AR1444-G2.5L	Glass	2.5 L
AR1444-G4L	Glass	4 L

Cat No.	Package	Size
AR1444-P2.5L	Plastic	2.5 L
AR1444-P4L	Plastic	4 L
AR1444-P20L	Plastic	20 L
AR1444-P200L	Plastic	200 L

ACETIC ACID 50%



CH_3COOH	FW. 60.05	Density =	1.07 kg/L
CAS-No.	64-19-7	Melting Point	17 °C
UN No.	2790	Boiling Point	105 °C
EC No.	200-580-7	EC-Index-No	607-002-00-6
Class:	8	Packing Group:	II

GHS: H314; P260, H264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P405

Danger

Acetic Acid 50%, AR — Code AR0999

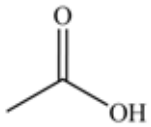
Specifications

Assay (by acidimetry)	50%	min.	Chloride (Cl)	0.5	ppm max.
Color (APHA)	10	max.	Sulfate (SO_4)	0.5	ppm max.
Titrable base (mEq./g.)	0.0004	max.	Heavy metals (as Pb)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Arsenic (As)	0.001	ppm max.
Substances reducing dichromate	Passes test		Iron (Fe)	0.2	ppm max.
Substances reducing permanganate	Passes test				

Cat No.	Package	Size
AR0999-G500ML	Glass	500 mL
AR0999-G1L	Glass	1 L
AR0999-G2.5L	Glass	2.5 L
AR0999-G4L	Glass	4 L

Cat No.	Package	Size
AR0999-P2.5L	Plastic	2.5 L
AR0999-P4L	Plastic	4 L
AR0999-P20L	Plastic	20 L
AR0999-P20KG	Plastic	20 kg

ACETIC ACID 60%



CH_3COOH	FW. 60.05	Density =	1.07 kg/L
CAS-No.	64-16-7		
UN No.	2790	Boiling Point	117-118 °C
EC No.	200-580-7	EC-Index-No	607-002-00-6
Class:	8	Packing Group:	II

Danger

GHS: H314; P260, H264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P405

Acetic Acid 60%, AR — Code AR1338

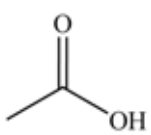
Specifications

Assay (by acidimetry)	59.0-61.0%	min.	Chloride (Cl)	0.5	ppm max.
Color (APHA)	10	max.	Sulfate (SO_4)	0.5	ppm max.
Titrable base (mEq./g.)	0.0004	max.	Heavy metals (as Pb)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Arsenic (As)	0.001	ppm max.
Substances reducing dichromate	Passes test		Iron (Fe)	0.2	ppm max.
Substances reducing permanganate	Passes test		Formic acid	0.1%	max.

Cat No.	Package	Size
AR1338-G500ML	Glass	500 mL
AR1338-G1L	Glass	1 L
AR1338-G2.5L	Glass	2.5 L
AR1338-G4L	Glass	4 L

Cat No.	Package	Size
AR1338-P2.5L	Plastic	2.5 L
AR1338-P4L	Plastic	4 L
AR1338-P20L	Plastic	20 L
AR1338-P200L	Plastic	200 L

ACETIC ACID 96%



CH_3COOH	FW. 60.05	Density =	1.06 kg/L
CAS-No.	64-19-7	Melting Point	16.6 °C
UN No.	2789	Boiling Point	118 °C
EC No.	200-580-7	EC-Index-No	607-002-00-6
Class:	8(3)	Packing Group:	II

Danger

GHS: H226, H314; P210, P233, P240, P242, P243, P260, P264, P280, P301 + P330 + P331, P303 + P361 + P353, P304 + P340, P305 + P354 + P338, P316, P363, P403 + P235 + P405

Acetic Acid 96%, AR — Code AR1000

Specifications

Assay (by acidimetry)	96%		Substances reducing permanganate	Passes test	
Dilution test	Passes test		Chloride (Cl)	0.5	ppm max.
Color (APHA)	10	max.	Sulfate (SO_4)	0.5	ppm max.
Acetic Anhydride [$(CH_3CO)_2O$]	0.01%	max.	Heavy metals (as Pb)	0.5	ppm max.
Titrable base (mEq./g.)	0.0004	max.	Arsenic (As)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Iron (Fe)	0.2	ppm max.
Substances reducing dichromate	Passes test				

Cat No.	Package	Size
AR1000-G500ML	Glass	500 mL
AR1000-G1L	Glass	1 L
AR1000-G2.5L	Glass	2.5 L
AR1000-G4L	Glass	4 L
AR1000-P2.5L	Plastic	2.5 L
AR1000-P4L	Plastic	4 L

Cat No.	Package	Size
AR1000-P20L	Plastic	20 L
AR1000-P120L	Plastic	120 L
AR1000-P200L	Plastic	200 L
AR1000-P16KG	Plastic	16 kg
AR1000-P20KG	Plastic	20 kg

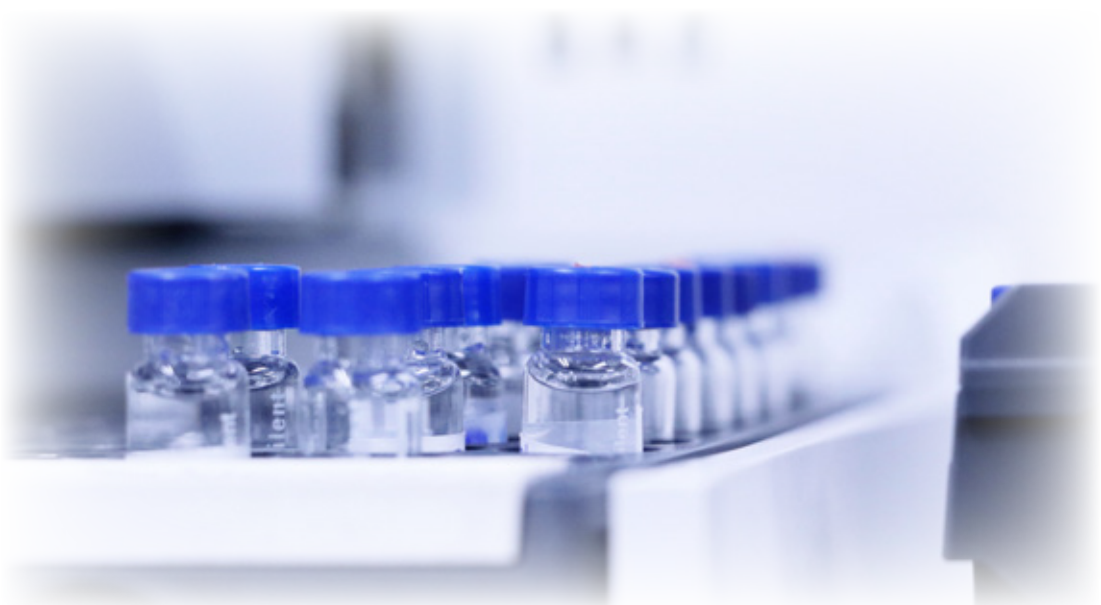
Acetic Acid 96%, Electropure — Code EP1000

Specifications

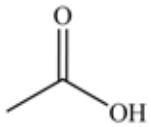
Assay (by acidimetry)	96.0%	min.
Color (APHA)	10	max.
Acetic Anhydride [$(CH_3CO)_2O$]	0.01%	max.
Solubility in water	Passes test	
Substances reducing dichromate	Passes test	
Substances reducing permanganate	Passes test	
Residue on Evaporation	5	ppm max.
Chloride (Cl)	0.5	ppm max.
Phosphate (PO_4)	1	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.05	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.2	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.05	ppm max.

Cat No.	Package	Size
EP1000-G500ML	Glass	500 mL
EP1000-G1L	Glass	1 L
EP1000-G2.5L	Glass	2.5 L
EP1000-G4L	Glass	4 L

Cat No.	Package	Size
EP1000-P2.5L	Plastic	2.5 L
EP1000-P4L	Plastic	4 L
EP1000-P20L	Plastic	20 L
EP1000-P200L	Plastic	200 L



ACETIC ACID GLACIAL



CH_3COOH	FW. 60.05	Density =	1.05 kg/L
CAS-No.	64-19-7	Melting Point	17 °C
UN No.	2789	Boiling Point	118 °C
EC No.	200-580-7	EC-Index-No	607-002-00-6
Class:	8 (3)	Packing Group:	II

Danger

GHS: H226, H314: P210, P233, P240; P242, P243, P260, P264, P280, P301+ P330 + P331, P303 + P361 + P353, P304 + P340, P305 + P354 + P338, P316, P363, P403 + P235, P405

Acetic Acid Glacial, AR — Code AR1002

Specifications

(Meet A.C.S. Specification)

Assay (by acidimetry)	99.8%	min	Substances reducing permanganate	Passes test	
Dilution test	Passes test		Chloride (Cl)	0.5	ppm max.
Color (APHA)	10	max.	Sulfate (SO_4)	0.5	ppm max.
Titrable base (mEq./g.)	0.0004	max.	Heavy metals (as Pb)	0.5	ppm max.
Acetic Anhydride [$(CH_3CO)_2O$]	0.01%	max.	Arsenic (As)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Iron (Fe)	0.2	ppm max.
Substances reducing dichromate	Passes test				

Cat No.	Package	Size
AR1002-G500ML	Glass	500 mL
AR1002-G1L	Glass	1 L
AR1002-G2.5L	Glass	2.5 L
AR1002-G4L	Glass	4 L
AR1002-P2.5L	Plastic	2.5 L
AR1002-P4L	Plastic	4 L

Cat No.	Package	Size
AR1002-P20L	Plastic	20 L
AR1002-P120L	Plastic	120 L
AR1002-P200L	Plastic	200 L
AR1002-P16KG	Plastic	16 kg
AR1002-P20KG	Plastic	20 kg

Acetic Acid Glacial, RCI Premium — Code RP1002

Specifications

(Meet A.C.S. Specification)

Assay (by acidimetry)	99.7%	min.	Calcium (Ca)	0.00003%	max.
Color (APHA)	10	max.	Cobalt (Co)	0.000001%	max.
Titrable base (mEq./g.)	0.0004	max.	Chromium (Cr)	0.00002%	max.
Residue on Evaporation	0.0005%	max.	Copper (Cu)	0.000002%	max.
Dilution in water	Passes test		Gold (Au)	0.00003%	max.
Solubility in water	Passes test		Iron (Fe)	0.00002%	max.
Substances reducing dichromate	Passes test		Lead (Pb)	0.000002%	max.
Substances reducing permanganate	Passes test		Magnesium (Mg)	0.00001%	max.
Acetic Anhydride [$(CH_3CO)_2O$]	0.01%	max.	Manganese (Mn)	0.000001%	max.
Acetaldehyde	0.005%	max.	Molybdenum (Mo)	0.000002%	max.
Chloride (Cl)	0.00005%	max.	Nickel (Ni)	0.000002%	max.
Sulfate (SO_4)	0.00005%	max.	Potassium (K)	0.00003%	max.
Heavy Metals (as Pb)	0.00005%	max.	Sodium (Na)	0.00003%	max.
Aluminium (Al)	0.00001%	max.	Strontium (Sr)	0.000001%	max.
Arsenic and Antimony (as As)	0.000001%	max.	Tin (Sn)	0.00001%	max.
Barium (Ba)	0.00005%	max.	Titanium (Ti)	0.00003%	max.
Boron (B)	0.00001%	max.	Zinc (Zn)	0.00001%	max.
Cadmium (Cd)	0.000002%	max.			

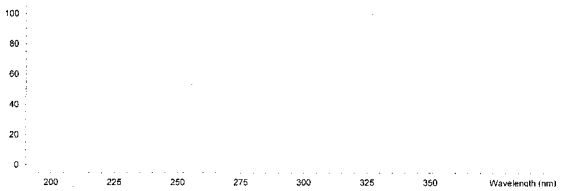
Cat No.	Package	Size
RP1002-G500ML	Glass	500 mL
RP1002-G1L	Glass	1 L
RP1002-G2.5L	Glass	2.5 L
RP1002-G4L	Glass	4 L

Cat No.	Package	Size
RP1002-P2.5L	Plastic	2.5 L
RP1002-P4L	Plastic	4 L
RP1002-P20L	Plastic	20 L
RP1002-P200L	Plastic	200 L

Acetic Acid Glacial, HPLC — Code LC1002

Specifications

Assay (by acidimetry)	99.8%	min
Water (by Coulometry)	0.2%	max.
Color (APHA)	10	max.
Residue on Evaporation	0.0005%	max.
Chloride (Cl)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.
UV Transmission Levels (%T)		
300 nm	98%	min.
280 nm	97%	min.
260 nm	80%	min.



Product passed through 0.2 micron final filter.

Cat No.	Package	Size
LC1002-G500ML	Glass	500 mL
LC1002-G1L	Glass	1 L

Cat No.	Package	Size
LC1002-G2.5L	Glass	2.5 L
LC1002-G4L	Glass	4 L

Acetic Acid Glacial, Semig — Code SM1002

Specifications

Assay (by acidimetry)	99.7%	min.
Color (APHA)	10	max.
Residue on Evaporation	5	ppm max.
Solubility in water	Passes test	
Substances reducing dichromate	Passes test	
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Aluminium (Al)	0.3	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.2	ppm max.
Calcium (Ca)	0.3	ppm max.

Chromium (Cr)	0.2	ppm max.
Copper (Cu)	0.1	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.3	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.3	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.3	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.3	ppm max.

Cat No.	Package	Size
EP1002-G500ML	Glass	500 mL
EP1002-G1L	Glass	1 L
EP1002-G2.5L	Glass	2.5 L
EP1002-G4L	Glass	4 L

Cat No.	Package	Size
EP1002-P2.5L	Plastic	2.5 L
EP1002-P4L	Plastic	4 L
EP1002-P20L	Plastic	20 L
EP1002-P200L	Plastic	200 L

Acetic Acid Glacial, Electropure — Code EP1002

Specifications

Assay (by acidimetry)	99.8%	min.
Color (APHA)	10	max.
Acetaldehyde	2	ppm max.
Acetic Anhydride [$(CH_3CO)_2O$]	100	ppm max.
Residue on Evaporation	5	ppm max.
Solubility in water	Passes test	
Substances reducing dichromate	Passes test	
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Phosphate (PO_4)	1	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.05	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.

Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.1	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.05	ppm max.

Cat No.	Package	Size
EP1002-G500ML	Glass	500 mL
EP1002-G1L	Glass	1 L
EP1002-G2.5L	Glass	2.5 L
EP1002-G4L	Glass	4 L

Cat No.	Package	Size
EP1002-P2.5L	Plastic	2.5 L
EP1002-P4L	Plastic	4 L
EP1002-P20L	Plastic	20 L
EP1002-P200L	Plastic	200 L

Acetic Acid Glacial, VLSI — Code VL1002

Specifications

Assay (by acidimetry)	99.8%	min.
Color (APHA)	10	max.
Acetaldehyde	2	ppm max.
Acetic Anhydride [$(CH_3CO)_2O$]	100	ppm max.
Formic acid	100	ppm max.
Residue on Evaporation	5	ppm max.
Substances reducing dichromate	Passes test	
Substances reducing permanganate	Passes test	
Solubility in water	Passes test	
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.05	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Aluminium (Al)	20	ppb max.
Arsenic and Antimony (as As)	5	ppb max.
Barium (Ba)	10	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	50	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppm max.
Gallium (Ga)	10	ppb max.
Germanium (Ge)	20	ppb max.
Gold (Au)	20	ppb max.
Indium (In)	10	ppb max.
Iron (Fe)	100	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	50	ppb max.
Manganese (Mn)	10	ppb max.
Molybdenum (Mo)	20	ppb max.
Nickel (Ni)	10	ppb max.
Platinum (Pt)	20	ppb max.
Potassium (K)	50	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	200	ppb max.
Strontium (Sr)	20	ppb max.
Thallium (Tl)	20	ppb max.
Tin (Sn)	50	ppb max.
Titanium (Ti)	50	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	50	ppb max.
Zirconium (Zr)	20	ppb max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1002-G500ML	Glass	500 mL
VL1002-G1L	Glass	1 L
VL1002-G2.5L	Glass	2.5 L
VL1002-G4L	Glass	4 L

Cat No.	Package	Size
VL1002-P2.5L	Plastic	2.5 L
VL1002-P4L	Plastic	4 L
VL1002-P20L	Plastic	20 L
VL1002-P200L	Plastic	200 L

Acetic Acid Glacial, Pharma — Code BP1002

Specifications

(Meets Ph.Eur, BP, USP/NF, JP, SCS)

Assay (by acidimetry)	99.8-100.0%	
Appearance	Clear and colorless	
Identity	Passes test	
Color (APHA)	10	max.
Dilution test	Passes test	
Solubility	Passes test	
Titrable base (mEq./g.)	0.0004	max.
Acetic Anhydride [$(CH_3CO)_2O$]	0.01%	max.
Residue on Evaporation	0.001%	max.
Substances reducing dichromate	Passes test	
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.05	ppm max.
Sulfate (SO_4)	0.05	ppm max.
Heavy Metals (as Pb)	0.05	ppm max.
Arsenic (As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Freezing point (°C)	16.0	min.

Cat No.	Package	Size
BP1002-G500ML	Glass	500 mL
BP1002-G1L	Glass	1 L
BP1002-G2.5L	Glass	2.5 L
BP1002-G4L	Glass	4 L

Cat No.	Package	Size
BP1002-P2.5L	Plastic	2.5 L
BP1002-P4L	Plastic	4 L
BP1002-P20L	Plastic	20 L
BP1002-P200L	Plastic	200 L

ACETONE

CH_3COCH_3	FW. 58.08	Density =	0.790 kg/L
CAS-No.	67-64-1	Melting Point	-95.4 °C
UN No.	1090	Boiling Point	56.2 °C
EC No.	200-662-2	EC-Index-No	606-001-00-8
Class:	3	Packing Group:	II

Danger

GHS: H225, H319, H336, EUH066; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Acetone, AR — Code AR1003

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min	Methanol (GC.)	0.05%	max.
Color (APHA)	10	max.	Propan-2-ol (GC.)	0.05%	max.
Water (by Coulometry)	0.2%	max.	Aldehyde (as HCHO)	0.002%	max.
Acidity (mEq./g.)	0.0003	max.	Solubility in water	Passes test	
Alkalinity (mEq./g.)	0.0006	max.	Substances reducing permanganate	Passes test	
Residue on Evaporation	0.001%	max.			

Cat No.	Package	Size
AR1003-G500ML	Glass	500 mL
AR1003-G1L	Glass	1 L
AR1003-G2.5L	Glass	2.5 L
AR1003-G4L	Glass	4 L

Cat No.	Package	Size
AR1003-P2.5L	Plastic	2.5 L
AR1003-P4L	Plastic	4 L
AR1003-P20L	Plastic	20 L
AR1003-P200L	Plastic	200 L

Acetone, RCI Premium — Code RP1003

Specifications (Meet A.C.S. Specifications and USP/NF)

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance of solution	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Benzene (GC.)	2	ppm max.
Cyclohexane (residual solvent) (GC.)	0.01%	max.
Diacetone (GC.)	0.02%	max.
Ethanol (GC.)	0.01%	max.
Methanol (GC.)	0.05%	max.
Other impurity (GC.)	0.05%	max.
2-Propanol (GC.)	0.05%	max.
Related substances (GC.)	Passes test	
Acidity or alkalinity	Passes test	
Aldehydes (as formaldehyde)	0.001%	max.
Reducing substances	Passes test	
Solubility in water	Passes test	
Substances reducing permanganate (as O)	0.00025%	max.
Water-insoluble substances	Passes test	
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.1	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Sulfate (SO_4)	0.1	ppm max.
Aluminium (Al)	0.5	ppm max.
Antimony (Sb)	0.02	ppm max.

Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.1	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Lithium (Li)	0.05	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Silver (Ag)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.02	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
RP1003-G500ML	Glass	500 mL
RP1003-G1L	Glass	1 L
RP1003-G2.5L	Glass	2.5 L
RP1003-G4L	Glass	4 L

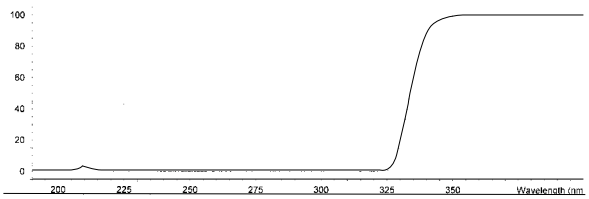
Cat No.	Package	Size
RP1003-P2.5L	Plastic	2.5 L
RP1003-P4L	Plastic	4 L
RP1003-P20L	Plastic	20 L
RP1003-P200L	Plastic	200 L

Acetone, HPLC — Code LC1003

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Aldehyde (as HCHO)	0.02	max.
Methanol (GC.)	0.05	max.
Propan-2-ol (GC.)	0.05	max.
Solubility in water	Passes test	
Substances reducing permanganate	Passes test	
UV Transmission Levels (%T)		
355 nm	99%	min.
350 nm	98%	min.
340 nm	85%	min.
335 nm	50%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1003-G100ML	Glass	100 mL
LC1003-G500ML	Glass	500 mL
LC1002-G1L	Glass	1 L

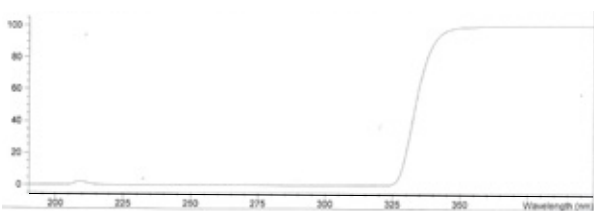
Cat No.	Package	Size
LC1002-G2.5L	Glass	2.5 L
LC1002-G4L	Glass	4 L

Acetone, HPLC Plus — Code LC1004

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Aldehyde (as HCHO)	0.002%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.05%	max.
Solubility in water	Passes test	
Substances reducing permanganate	Passes test	
UV Transmission Levels (%T)		
355 nm	99%	min.
350 nm	98%	min.
340 nm	85%	min.
335 nm	50%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1004-G500ML	Glass	500 mL
LC1004-G1L	Glass	1 L

Cat No.	Package	Size
LC1004-G2.5L	Glass	2.5 L
LC1004-G4L	Glass	4 L

Acetone, GC-MS — Code GM1003

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.

Ethanol (GC.)	0.01%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.05%	max.
Substances reducing permanganate	Passes test	
GC-MSD (as n-Tetradecane standard)	3	ng/ml max
Single impurity peak,		
(retention range n-undecane to n-tetracontane)		

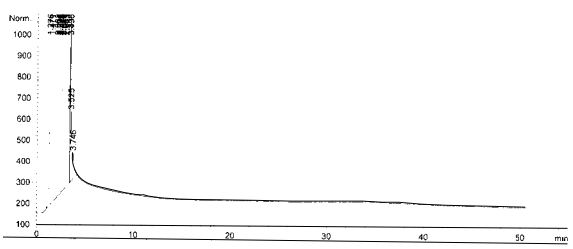
Cat No.	Package	Size
GM1003-G500ML	Glass	500 mL
GM1003-G1L	Glass	1 L

Cat No.	Package	Size
GM1003-G2.5L	Glass	2.5 L
GM10033-G4L	Glass	4 L

Acetone, Pesticide — Code PC1003

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances reducing permanganate	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1003-G500ML	Glass	500 mL
PC1003-G1L	Glass	1 L

Cat No.	Package	Size
PC1003-G2.5L	Glass	2.5 L
PC1003-G4L	Glass	4 L

Acetone, LVI-GC — Code LV1003

Specifications

Assay (by GC.)	99.95%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	ppm max.

Substances reducing permanganate	Passes test	
ECD (as lindane standard) Single impurity peak	2	pg/ml max.
Any hydrocarbon between C10 to C40	0.1	mg/L max.

*Residual trace analysis concentration 500 : 0.5mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1003-G500ML	Glass	500 mL
LV1003-G1L	Glass	1 L
LV1033-G2.5L	Glass	2.5 L

Cat No.	Package	Size
LV1003-G4L	Glass	4 L
LV1003-P2.5L	Plastic	2.5 L
LV1003-P4L	Plastic	4 L

Acetone, UV-IR — Code IR1003

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.

UV Transmission Levels (%T)		
350 nm	99%	min.
340 nm	85%	min.
335 nm	60%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1003-G500ML	Glass	500 mL
IR1003-G1L	Glass	1 L

Cat No.	Package	Size
IR1003-G2.5L	Glass	2.5 L
IR1003-G4L	Glass	4 L

Acetone, Peptide Synthesis — Code PS1003

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0003	max.

Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.05%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1003-G500ML	Glass	500 mL
PS1003-G1L	Glass	1 L

Cat No.	Package	Size
PS10033-G2.5L	Glass	2.5 L
PS1003-G4L	Glass	4 L

Acetone, Semig — Code SM1003

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.5	max.
Solubility in water	Passes Test	
Residue on Evaporation	3	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Aluminium (Al)	0.1	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Boron (B)	0.1	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.1	ppm max.

Copper (Cu)	0.1	ppm max.
Gallium (Ga)	0.1	ppm max.
Gold (Au	0.1	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.1	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.1	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Cat No.	Package	Size
SM1003-G500ML	Glass	500 mL
SM1003-G1L	Glass	1 L
SM1003-G2.5L	Glass	2.5 L
SM1003-G4L	Glass	4 L

Cat No.	Package	Size
SM1003-P2.5L	Plastic	2.5 L
SM1003-P4L	Plastic	4 L
SM1003-P20L	Plastic	20 L
SM1003-P200L	Plastic	200 L

Acetone, Electropure — Code EP1003

Specifications

Assay (by GC.)	99.8%	min.
Identity	Corresponds to IR spectrum	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.5	max.
Specific resistance (MΩ.cm)	5	min.
Residue on Evaporation	5	ppm max.
Ethanol (GC.)	100	ppm max.
Methanol (GC.)	500	ppm max.
Aldehydes (as HCHO)	10	ppm max.
Solubility in water	Passes test	
Substances reducing permanganate (as O)	2.5	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.05	ppm max.
Antimony (Sb)	0.01	ppm max.
Arsenic (As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.1	ppm max.

Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.05	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05%	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.01	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.05	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.02	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.2	ppm max.

Cat No.	Package	Size
EP1003-G500ML	Glass	500 mL
EP1003-G1L	Glass	1 L
EP1003-G2.5L	Glass	2.5 L
EP1003-G4L	Glass	4 L

Cat No.	Package	Size
EP1003-P2.5L	Plastic	2.5 L
EP1003-P4L	Plastic	4 L
EP1003-P20L	Plastic	20 L
EP1003-P200L	Plastic	200 L

Acetone, Extropure — Code XP1003

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.3%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.5	max.
Solubility in water	Passes test	
Residue on Evaporation	3	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Heavy metals (as Pb)	100	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	20	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	50	ppb max.
Germanium (Ge)	50	ppb max.

Gold (Au)	20	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	10	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	50	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	50	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	
Particle/ml:		
0.5 µm and greater	65	max.
1.0 µm and greater	8	max.

Cat No.	Package	Size
XP1003-G500ML	Glass	500 mL
XP1003-G1L	Glass	1 L
XP1003-G2.5L	Glass	2.5 L
XP1003-G4L	Glass	4 L

Cat No.	Package	Size
XP1003-P2.5L	Plastic	2.5 L
XP1003-P4L	Plastic	4 L
XP1003-P20L	Plastic	20 L
XP1003-P200L	Plastic	200 L

Acetone, VLSI — Code VL1003

Specifications

Assay (by GC.)	99.8%	min.
Identity	Corresponds to IR spectrum	
Water (by Coulometry)	0.2%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.5	max.
Specific resistance (MΩ.cm)	5	min.
Residue on Evaporation	3	ppm max.
Ethanol (GC.)	50	ppm max.
Methanol (GC.)	500	ppm max.
Aldehydes (as HCHO)	10	ppm max.
Substances reducing permanganate (as O)	2.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	50	ppb max.
Antimony (Sb)	10	ppb max.
Arsenic (As)	10	ppb max.
Barium (Ba)	20	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	10	ppb max.

Gold (Au)	20	ppb max.
Indium (In)	10	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	10	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	10	ppb max.
Platinum (Pt)	50	ppb max.
Potassium (K)	20	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	10	ppb max.
Thallium (Tl)	10	ppb max.
Tin (Sn)	20	ppb max.
Titanium (Ti)	20	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	20	ppb max.
Zirconium (Zr)	20	ppb max.
Particle/ml:		
0.5 µm and greater	30	max.
1.0 m and greater	8	max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1003-G500ML	Glass	500 mL
VL1003-G1L	Glass	1 L
VL1003-G2.5L	Glass	2.5 L
VL1003-G4L	Glass	4 L

Cat No.	Package	Size
VL1003-P2.5L	Plastic	2.5 L
VL1003-P4L	Plastic	4 L
VL1003-P20L	Plastic	20 L
VL1003-P200L	Plastic	200 L

Acetone, Pharma — Code BP1003

Specifications

(Meets Ph.Eur, BP, USP/NF, ACS)

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.3%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Acidity or alkalinity	Passes test	
Residue on Evaporation	0.0005%	max.
Aldehydes (as Formaldehyde)	0.001%	max.
Cyclohexane (GC.)	0.01%	max.
Diacetone (GC.)	0.02%	max.
Ethanol (GC.)	0.01%	max.
Related substances (GC.)	Passes test	
Benzene (GC.)	2	ppm max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.05%	max.
Other impurity (GC.)	0.05%	max.
Reducing substances	Passes test	
Solubility in water	Passes test	
Substances reducing permanganate (as O)	Passes test	
Readily oxidizable substances	Passes test	
Water-insoluble substances	Passes test	
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.1	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Sulfate (SO_4)	0.1	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Aluminium (Al)	0.5	ppm max.

Antimony (Sb)	0.02	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.1	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Lithium (Li)	0.05	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Silver (Ag)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.02	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
BP1003-G500ML	Glass	500 mL
BP1003-G1L	Glass	1 L
BP1003-G2.5L	Glass	2.5 L
BP1003-G4L	Glass	4 L

Cat No.	Package	Size
BP1003-P2.5L	Plastic	2.5 L
BP1003-P4L	Plastic	4 L
BP1003-P20L	Plastic	20 L
BP1003-P200L	Plastic	200 L

ACETONITRILE

CH_3CN	FW. 41.05	Density =	0.786 kg/L
CAS-No.	75-05-8	Melting Point	-45.7 °C
UN No.	1648	Boiling Point	81.6 °C
EC No.	200-835-2	EC-Index-No	608-001-00-3
Class:	3	Packing Group:	II

Danger

GHS: H225, H302 + H312 + H332, H319; P210, P233, P240, P242, P243, P261, P264, P270, P271, P280, P301 + P317, P302 + P352, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P330, P337 + P317, P362 + P364, P403 + P235

Acetonitrile, AR — Code AR1005

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.7%	min.	Acidity (mEq./g.)	0.0005	max.
Appearance	Clear		Alkalinity (mEq./g.)	0.0006	max.
Color (APHA)	10	max.	Residue on Evaporation	0.001%	max.
Water (by Coulometry)	0.05%	max.	Propionitrile	0.2%	max.

Cat No.	Package	Size
AR1005-G500ML	Glass	500 mL
AR1005-G1L	Glass	1 L
AR1005-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1005-G4L	Glass	4 L
AR1005-M25L	Metal	25 L
AR1005-M200L	Metal	200 L

Acetonitrile, RCI Premium — Code RP1005

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Cadmium (Cd)	0.05	ppm max.
Identity (IR)	Passes test		Calcium (Ca)	0.5	ppm max.
Appearance	Clear		Chromium (Cr)	0.02	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.02	ppm max.
Water (by Coulometry)	0.05%	max.	Copper (Cu)	0.02	ppm max.
Acidity (mEq./g.)	0.0002	max.	Iron (Fe)	0.1	ppm max.
Alkalinity (mEq./g.)	0.0001	max.	Lead (Pb)	0.1	ppm max.
Residue on Evaporation	0.001%	max.	Magnesium (Mg)	0.1	ppm max.
Cyanide (CN)	0.005%	max.	Manganese (Mn)	0.02	ppm max.
Propionitrile	0.2%	max.	Nickel (Ni)	0.02	ppm max.
Aluminium (Al)	0.5	ppm max.	Tin (Sn)	0.1	ppm max.
Barium (Ba)	0.1	ppm max.	Zinc (Zn)	0.1	ppm max.
Boron (B)	0.02	ppm max.			

Cat No.	Package	Size
RP1005-G500ML	Glass	500 mL
RP1005-G1L	Glass	1 L
RP1005-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1005-G4L	Glass	4 L
RP1005-M25L	Metal	25 L
RP1005-M200L	Metal	200 L

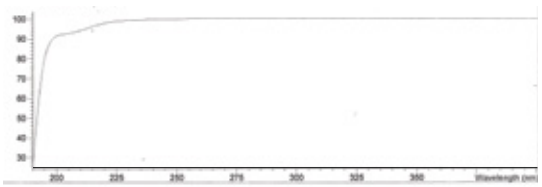
Acetonitrile, HPLC — Code LC1005

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	97%	min.
210 nm	93%	min.
195 nm	70%	min.

Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.5	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1005-G100ML	Glass	100 mL
LC1005-G500ML	Glass	500 mL
LC1005-G1L	Glass	1 L

Cat No.	Package	Size
LC1005-G2.5L	Glass	2.5 L
LC1005-G4L	Glass	4 L

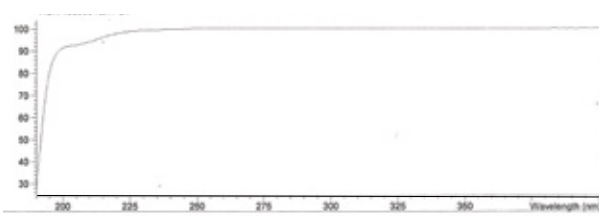
Acetonitrile, HPLC Plus — Code LC1219

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	97%	min.
210 nm	93%	min.
195 nm	70%	min.
Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.5	ppb max.

Silicone oil	Free	
DOP	Free	
Amide	Free	

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1219-G500ML	Glass	500 mL
LC1219-G1L	Glass	1 L

Cat No.	Package	Size
LC1219-G2.5L	Glass	2.5 L
LC1219-G4L	Glass	4 L

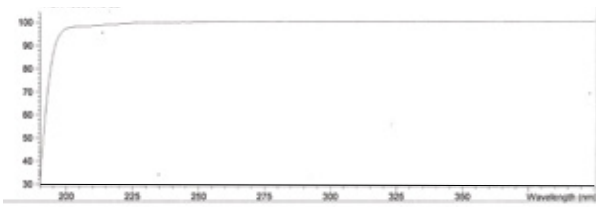
Acetonitrile, Far UV for HPLC — Code LC1007

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
230 nm	99%	min.
220 nm	98%	min.
210 nm	95%	min.
200 nm	80%	min.
190 nm	30%	min.

Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.5	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1007-G500ML	Glass	500 mL
LC1007-G1L	Glass	1 L

Cat No.	Package	Size
LC1007-G2.5L	Glass	2.5 L
LC1007-G4L	Glass	4 L

Acetonitrile, Super Gradient for HPLC — Code SG1005

(Conforms to Reag. Ph.Eur / BP / USP)

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
230 nm	99%	min.
195 nm	80%	min.

190 nm	30%	min.
Gradient Specification		
at 210 nm	1.0	mAU max.
at 254 nm	0.5	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.5	ppb max.

*Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
SG1005-G500ML	Glass	500 mL
SG1005-G1L	Glass	1 L

Cat No.	Package	Size
SG1005-G2.5L	Glass	2.5 L
SG1005-G4L	Glass	4 L

Acetonitrile, Ultra Gradient for HPLC — Code SG1006

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (as CH_3COOH)	0.001%	max.
Alkalinity (as NH_3)	0.0001%	max.
Residue on Evaporation	0.0001%	max.
UV Transmission Levels (%T)		
230 nm	99%	min.
215 nm	98%	min.
200 nm	97%	min.
195 nm	85%	min.
191 nm	30%	min.
Gradient Specification: Highest Peak		
at 210 nm	1.0	mAU max.
at 254 nm	0.5	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.3	ppb max.

Aluminium (Al)	20	ppb max.
Barium (Ba)	50	ppb max.
Cadmium (Cd)	50	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	50	ppb max.
Copper (Cu)	20	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	20	ppb max.
Potassium (K)	50	ppb max.
Sodium (Na)	100	ppb max.
Tin (Sn)	50	ppb max.
Zinc (Zn)	50	ppb max.

*Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
SG1006-G500ML	Glass	500 mL
SG1006-G1L	Glass	1 L

Cat No.	Package	Size
SG1006-G2.5L	Glass	2.5 L
SG1006-G4L	Glass	4 L

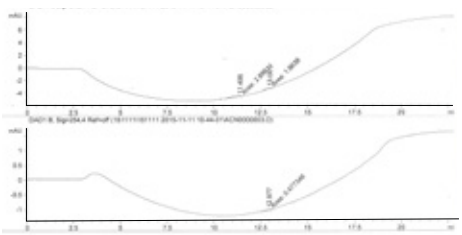
Acetonitrile, LC-MS — Code LM1005

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0001	max.
Residue on Evaporation	0.0001%	max.
UV Transmission Levels (%T)		
230 nm	99%	min.
215 nm	98%	min.
200 nm	97%	min.
195 nm	85%	min.
190 nm	30%	min.
Gradient Specification		
at 210 nm	1.0	mAU max.
at 254 nm	0.5	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.3	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	20	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.

Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Sodium (Na)	20	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS (ESI positive as Reserpine)	10	ppb max.

Product passed through 0.1 micron final filter and bottled under inert gas.



Cat No.	Package	Size
LM1005-G500ML	Glass	500 mL
LM1005-G1L	Glass	1 L

Cat No.	Package	Size
LM1005-G2.5L	Glass	2.5 L
LM1005-G4L	Glass	4 L

Acetonitrile, ULC-MS — Code UM1005

Specifications

Assay (by GC.)	99.98%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0001	max.
Residue on Evaporation	0.0001%	max.
UV Transmission Levels (%T)		
230 nm	99%	min.
215 nm	98%	min.
200 nm	97%	min.
195 nm	85%	min.
190 nm	30%	min.
Gradient Specification		
at 210 nm	1.0	mAU max.
at 254 nm	0.3	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.3	ppb max.
at 365 nm	0.3	ppb max.
Aluminium (Al)	5	ppm max.
Barium (Ba)	5	ppb max.
Bismuth (Bi)	10	ppb max.

Cadmium (Cd)	5	ppb max.
Calcium (Ca)	20	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	20	ppb max.
Strontium (Sr)	10	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS (ESI positive as Reserpine)	5	ppb max.
Suitable for LC-MS (ESI negative as Reserpine)	20	ppb max.

*Suitable for UHPLC, / Ultra HPLC / CC / SFC - instruments.

Product passed through 0.1 micron final filter and bottled under inert gas.

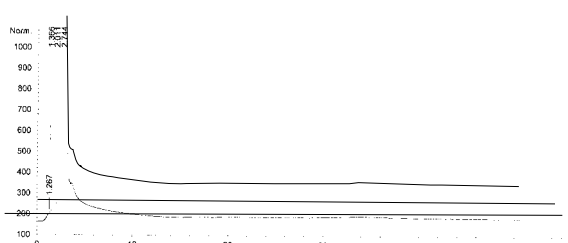
Cat No.	Package	Size
UM1005 5-G500ML	Glass	500 mL
UM1005 -G1L	Glass	1 L

Cat No.	Package	Size
UM1005 -G2.5L	Glass	2.5 L
UM1005 -G4L	Glass	4 L

Acetonitrile, Pesticide — Code PC1005

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1005-G500ML	Glass	500 mL
PC1005-G1L	Glass	1 L

Cat No.	Package	Size
PC1005-G2.5L	Glass	2.5 L
PC1005-G4L	Glass	4 L

Acetonitrile, LVI-GC — Code LV1005

Specifications

Assay (by GC.)	99.95%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.05	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1005-G500ML	Glass	500 mL
LV1005-G1L	Glass	1 L

Cat No.	Package	Size
LV1005-G2.5L	Glass	2.5 L
LV1005-G4L	Glass	4 L

Acetonitrile, UV-IR/HPLC — Code IR1005

Specifications

Assay (by GC.)	99.95%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
250 - 230 nm	99%	min.

220 nm	97%	min.
210 nm	95%	min.
200 nm	90%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1005-G500ML	Glass	500 mL
IR1005-G1L	Glass	1 L

Cat No.	Package	Size
IR1005-G2.5L	Glass	2.5 L
IR1005-G4L	Glass	4 L

Acetonitrile, Anhydrous (10 ppm) — Code AH1008

(Suitable for DNA Synthesis)

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.001%	max.

Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.

Cat No.	Package	Size
AH1008-G100ML	Glass	100 mL
AH1008-G500ML	Glass	500 mL
AH1008-G1L	Glass	1 L

Cat No.	Package	Size
AH1008-G2.5L	Glass	2.5 L
AH1008-G4L	Glass	4 L

Acetonitrile, Anhydrous (30 ppm) — Code AH1009

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.003%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.

Cat No.	Package	Size
AH1009-G500ML	Glass	500 mL
AH1009-G1L	Glass	1 L
AH1009-G2.5L	Glass	2.5 L
AH1009-G4L	Glass	4 L

Acetonitrile, Anhydrous (100 ppm) — Code AH1010

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.

Cat No.	Package	Size
AH1010-G500ML	Glass	500 mL
AH1010-G1L	Glass	1 L
AH1010-G2.5L	Glass	2.5 L
AH1010-G4L	Glass	4 L

Acetonitrile, Diluent for DNA / RNA Synthesis — Code DN1008

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.001%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.

Cat No.	Package	Size
DN1008-G500ML	Glass	500 mL
DN1008-G1L	Glass	1 L
DN1008-G2.5L	Glass	2.5 L
DN1008-G4L	Glass	4 L

Acetonitrile, Peptide Synthesis — Code PS1005

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1005-G500ML	Glass	500 mL
PS1005-G1L	Glass	1 L
PS1005-G2.5L	Glass	2.5 L
PS1005-G4L	Glass	4 L

Acetonitrile, Pharma — Code BP1005

Specifications

(Meets Reag. Ph.Eur, ACS)

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0006	max.
Residue on Evaporation	0.001%	max.
Propionitrile	0.2%	max.
Aluminium (Al)	0.5	ppm max.
Barium (Ba)	0.1	ppm max.
Boron (B)	0.02	ppm max.

Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Cat No.	Package	Size
BP1005-G500ML	Glass	500 mL
BP1005-G1L	Glass	1 L
BP1005-G2.5L	Glass	2.5 L

Cat No.	Package	Size
BP1005-G4L	Glass	4 L
BP1005-M25L	Metal	20 L
BP1005-M200L	Metal	200 L

Acetonitrile, For LC Analysis — Code LC1386

Specifications

Assay (by GC.)	99.7%	min.	
Appearance	Clear and colorless liquid		
Color (APHA)	10	max.	
Water (by Coulometry)	0.1%	max.	
Acidity (as CH_3COOH)	0.005%	max.	
Residue on Evaporation	0.001%	max.	

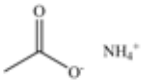
UV Absorbance		
280 nm	0.01	AU max.
254 nm	0.02	AU max.
214 nm	0.15	AU max.
190 nm	1.00	AU max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
LC1386-G500ML	Glass	500 mL
LC1386-G1L	Glass	1 L
LC1386-G2.5L	Glass	2.5 L

Cat No.	Package	Size
LC1386-G4L	Glass	4 L
LC1386-M200L	Metal	200 L

AMMONIUM ACETATE



$CH_3CO_2NH_4$	FW. 77.08	Density =	1.17 g/cm^3
CAS-No.	631-61-8	Melting Point	114 °C
EC No.	211-162-9	Boiling point	189 °C

Ammonium Acetate, AR — Code AR1231

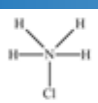
Specifications

Assay	98.0%	min.	Sulfate (SO_4)	0.002%	max.
Reaction	pH 6.5 - 7.5		Calcium (Ca)	0.001%	max.
Insoluble matter	0.001%	max.	Copper (Cu)	0.0001%	max.
Non-volatile matter	0.01%	max.	Iron (Fe)	0.0001%	max.
Chloride (Cl)	0.0005%	max.	Lead (Pb)	0.0001%	max.
Nitrate (NO_3)	0.002%	max.	Magnesium (Mg)	0.0004%	max.
Phosphate (PO_4)	0.0005%	max.			

Cat No.	Package	Size
AR1231-P500G	Plastic	500 g

Cat No.	Package	Size
AR1231-P20KG	Plastic	20 kg

AMMONIUM CHLORIDE



NH_4Cl	FW. 53.49	Density =	1.52 g/cm^3
CAS-No.	12125-02-9	Melting Point	335 °C
EC No.	235-186-4	EC-Index-No	017-014-00-8
GHS:	H302, H319; P264, P270, P280, P301 + P317, P305 + P351 + P338, P330, P337 + P317		

Warning

Ammonium Chloride, AR — Code AR1011

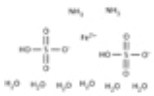
Specifications

Description	White crystalline powder		Pyridine and homologues	0.001%	max.
Assay	99.5%	min.	Arsenic (As)	0.00005%	max.
pH (5% Solution)	4.5 – 5.5		Calcium (Ca)	0.001%	max.
Insoluble matter	0.001%	max.	Iron (Fe)	0.0002%	max.
Non-volatile matter	0.005%	max.	Lead (Pb)	0.0002%	max.
Iodide (I)	0.001%	max.	Potassium (K)	0.005%	max.
Phosphate (PO_4)	0.0003%	max.	Sodium (Na)	0.005%	max.
Sulfate (SO_4)	0.002%	max.			

Cat No.	Package	Size
AR1011-P500G	Plastic	500 g

Cat No.	Package	Size
AR1011-P20KG	Plastic	20 kg

AMMONIUM FERROUS (II) SULFATE HEXAHYDRATE



$FeH_8N_2O_8S_2.6H_2O$	FW. 392.13	Density =	1.86 g/cm^3
CAS-No.	7783-85-9	Melting Point	100 °C
EC No.	233-151-8		

Ammonium Ferrous (II) Sulfate Hexahydrate, AR — Code AR1012

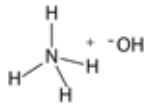
Specifications

Description	Greenish blue crystals / crystalline powder	
Assay	99.0 - 101.0%	
Reaction	Not less than pH 3.5	
Insoluble matter	0.003%	max.
Chloride (Cl)	0.001%	max.
Ferric iron (Fe)	0.02%	max.

Copper (Cu)	0.002%	max.
Lead (Pb)	0.002%	max.
Manganese (Mn)	0.05%	max.
Potassium (K)	0.02%	max.
Sodium (Na)	0.02%	max.
Zinc (Zn)	0.006%	max.

Cat No.	Package	Size
AR1012-P500G	Plastic	500 g

AMMONIUM HYDROXIDE 25% SOLUTION



NH_4OH	FW. 35.05	Density =	0.903 kg/L
CAS-No.	1336-21-6	Melting point	-57.5 °C
UN No.	2672	Boiling point	37.7 °C
EC No.	215-647-6	EC-Index-No	007-001-01-2
Class:	8	Packing Group:	III

Danger

GHS: H314, H335, H410; P260, P264, P271, P273, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P391, P403 + P233, P405

Ammonium Hydroxide 25% Solution, AR — Code AR1304

Specifications

Assay (by acidimetry)	25%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Carbon dioxide (CO_2)	20	ppm max.
Residue after Ignition	20	ppm max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Nitrate (NO_3)	2	ppm max.
Phosphate (PO_4)	2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Barium (Ba)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.

Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Tin (Sn)	0.01	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
AR1304-G500ML	Glass	500 mL
AR1304-G1L	Glass	1 L

Cat No.	Package	Size
AR1304-G2.5L	Glass	2.5 L
AR1304-G4L	Glass	4 L

Ammonium Hydroxide 25% Solution, RCI Premium — Code RP1304

Specifications

Assay (by acidimetry)	25.0%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Carbon dioxide (CO_2)	20	ppm max.
Residue after Ignition	10	ppm max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Nitrate (NO_3)	2	ppm max.
Phosphate (PO_4)	2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic (As)	0.05	ppm max.
Barium (Ba)	0.01	ppm max.
Beryllium (Be)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.01	ppm max.

Copper (Cu)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.01	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.01	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.01	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
RP1304-G500ML	Glass	500 mL
RP1304-G1L	Glass	1 L

Cat No.	Package	Size
RP13044-G2.5L	Glass	2.5 L
RP1304-G4L	Glass	4 L

Ammonium Hydroxide 25% Solution, Electropure — Code EP1304

Specifications

Assay (by acidimetry)	25.0%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Carbon dioxide (CO_2)	20	ppm max.
Residue after Ignition	10	ppm max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.3	ppm max.
Nitrate (NO_3)	1	ppm max.
Phosphate (PO_4)	2	ppm max.
Sulfate (SO_4)	0.3	ppm max.
Heavy metals (as Pb)	0.2	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic (As)	0.05	ppm max.
Barium (Ba)	0.01	ppm max.
Beryllium (Be)	0.01	ppm max.
Bismuth (Bi)	0.02	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.01	ppm max.

Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.01	ppm max.
Germanium (Ge)	0.05	ppm max.
Gold (Au)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.01	ppm max.
Lithium (Li)	0.01	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.005	ppm max.
Molybdenum (Mo)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.005	ppm max.
Sodium (Na)	0.1	ppm max.
Thallium (Tl)	0.01	ppm max.
Tin (Sn)	0.01	ppm max.
Titanium (Ti)	0.01	ppm max.
Vanadium (V)	0.01	ppm max.
Zinc (Zn)	0.02	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
EP1304-G500ML	Glass	500 mL
EP1304-G1L	Glass	1 L

Cat No.	Package	Size
EP1304-G2.5L	Glass	2.5 L
EP1304-G4L	Glass	4 L

Ammonium Hydroxide 25% Solution, Pharma — Code BP1304

Specifications

(Meet Ph.Eur.)

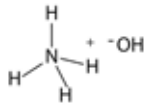
Assay (by acidimetry)	25 - 30%	
Identification	Passes test	
Solubility	Passes test	
Appearance of solution	Clear and colorless	
Carbonates	60	ppm max.
Residue on Evaporation	20	ppm max.
Substances reducing permanganate	Passes test	

Oxidisable substances	Passes test	
Pyridine and related substances	2	ppm max.
Chloride (Cl)	1	ppm max.
Sulfate (SO_4)	5	ppm max.
Heavy metals (as Pb)	1	ppm max.
Iron (Fe)	0.25	ppm max.

Cat No.	Package	Size
BP1304-G500ML	Glass	500 mL
BP1304-G1L	Glass	1 L

Cat No.	Package	Size
BP1304-G2.5L	Glass	2.5 L
BP1304-G4L	Glass	4 L

AMMONIUM HYDROXIDE 28% SOLUTION



NH_4OH	FW. 35.05	Density =	0.900 kg/L
CAS-No.	1336-21-6	Melting point	-72 °C
UN No.	2672	Boiling point	32 °C
EC No.	215-647-6	EC-Index-No	007-001-01-2
Class:	8	Packing Group:	III

Danger

GHS: H314, H335, H410; P260, P264, P271, P273, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P391, P403 + P233, P405

Ammonium Hydroxide 28% Solution, AR — Code AR1404

Specifications

Assay (by acidimetry)	28%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Carbon dioxide (CO_2)	20	ppm max.
Residue after Ignition	20	ppm max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Nitrate (NO_3)	2	ppm max.
Phosphate (PO_4)	2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Barium (Ba)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.

(Meet A.C.S. Specifications)

Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Tin (Sn)	0.01	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
AR1404-G500ML	Glass	500 mL
AR1404-G1L	Glass	1 L

Cat No.	Package	Size
AR1404-G2.5L	Glass	2.5 L
AR1404-G4L	Glass	4 L

Ammonium Hydroxide 28% Solution, AR — Code AR1472

Specifications

Assay (by acidimetry)	28.0 - 30.0%	w/w
Appearance	Passes test	
Carbon dioxide (CO_2)	0.002 %	max.
Residue after Ignition	0.002 %	max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.00005%	max.
Nitrate (NO_3)	0.0002%	max.
Phosphate (PO_4)	0.0002%	max.
Sulfate (SO_4)	0.0002%	max.
Heavy metals (as Pb)	0.00005%	max.
Aluminium (Al)	0.0001%	max.
Barium (Ba)	0.00001%	max.
Boron (B)	0.00002%	max.
Cadmium (Cd)	0.000005%	max.
Calcium (Ca)	0.0001%	max.
Chromium (Cr)	0.000002%	max.
Cobalt (Co)	0.000002%	max.

(Meet A.C.S. Specifications)

Copper (Cu)	0.000002%	max.
Iron (Fe)	0.00002%	max.
Lead (Pb)	0.000005%	max.
Lithium (Li)	0.000002%	max.
Magnesium (Mg)	0.0001%	max.
Manganese (Mn)	0.000002%	max.
Molybdenum (Mo)	0.000002%	max.
Nickel (Ni)	0.000002%	max.
Potassium (K)	0.0001%	max.
Sodium (Na)	0.0005%	max.
Strontium (Sr)	0.000002%	max.
Tin (Sn)	0.000002%	max.
Titanium (Ti)	0.00001%	max.
Vanadium (V)	0.00002%	max.
Zinc (Zn)	0.00001%	max.
Zirconium (Zr)	0 .000002%	max.

Cat No.	Package	Size
AR1472-G500ML	Glass	500 mL
AR1472-G1L	Glass	1 L

Cat No.	Package	Size
AR1472-G2.5L	Glass	2.5 L
AR1472-G4L	Glass	4 L

Ammonium Hydroxide 28% Solution, RCI Premium — Code RP1404

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	28%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Carbon dioxide (CO_2)	20	ppm max.
Residue after Ignition	10	ppm max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Nitrate (NO_3)	2	ppm max.
Phosphate (PO_4)	2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic (As)	0.05	ppm max.
Barium (Ba)	0.01	ppm max.
Beryllium (Be)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.01	ppm max.

Copper (Cu)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.01	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.01	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.01	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
RP1404-G500ML	Glass	500 mL
RP1404-G1L	Glass	1 L

Cat No.	Package	Size
RP1404-G2.5L	Glass	2.5 L
RP1404-G4L	Glass	4 L

Ammonium Hydroxide 28% Solution, Electropure — Code EP1404

Specifications

(Meet A.C.S. Specifications)

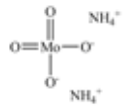
Assay (by acidimetry)	28%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Carbon dioxide (CO_2)	20	ppm max.
Residue after Ignition	10	ppm max.
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.3	ppm max.
Nitrate (NO_3)	1	ppm max.
Phosphate (PO_4)	2	ppm max.
Sulfate (SO_4)	0.3	ppm max.
Heavy metals (as Pb)	0.2	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic (As)	0.05	ppm max.
Barium (Ba)	0.01	ppm max.
Beryllium (Be)	0.01	ppm max.
Bismuth (Bi)	0.02	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.01	ppm max.

Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.01	ppm max.
Germanium (Ge)	0.05	ppm max.
Gold (Au)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.01	ppm max.
Lithium (Li)	0.01	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.005	ppm max.
Molybdenum (Mo)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.005	ppm max.
Sodium (Na)	0.1	ppm max.
Thallium (Tl)	0.01	ppm max.
Tin (Sn)	0.01	ppm max.
Titanium (Ti)	0.01	ppm max.
Vanadium (V)	0.01	ppm max.
Zinc (Zn)	0.02	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
EP1404-G500ML	Glass	500 mL
EP1404-G1L	Glass	1 L

Cat No.	Package	Size
EP1404-G2.5L	Glass	2.5 L
EP1404-G4L	Glass	4 L

AMMONIUM MOLYBDATE TETRAHYDRATE



$H_{24}MO_7N_6O_{24}.4H_2O$	FW. 1235.86	Density =	2.498 g/cm^3
CAS-No.	12054-85-2	Melting point	90 °C
EC No.	234-722-4		

Ammonium Molybdate Tetrahydrate, AR — Code AR1013

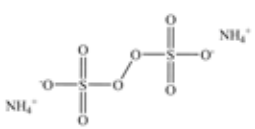
Specifications

Description	White crystalline powder		Nitrate (NO_3)	0.002%	max.
Assay	99.0%	min.	Sulfate (SO_4)	0.005%	max.
Arsenate phosphate & Silicate (PO_4)	0.0003%	max.	Copper (Cu)	0.001%	max.
Insoluble matter	0.005%	max.	Iron (Fe)	0.001%	max.
Chloride (Cl)	0.0005%	max.	Lead (Pb)	0.001%	max.

Cat No.	Package	Size
AR1013-P500G	Plastic	500 g
AR1013-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1013-P5KG	Plastic	5 kg
AR1013-P25KG	Plastic	25 kg

AMMONIUM PERSULFATE



$H_8N_2O_8S_2$	FW. 228.19	Density =	1.98 g/cm^3
CAS-No.	7727-54-0	Melting Point	120 °C
UN No.	1444		
EC No.	231-786-5	EC-Index-No	016-060-00-6
Class:	5.1	Packing Group:	III

Danger

GHS: H272, H302, H315, H317, H319, H334, H335; P210, P220, P261, P264, P270, P271, P272, P280, P284, P301 + P317, P302 + P352, P304 + P340, P305 + P351 + P338, P330, P333 + P317, P337 + P317, P342 + P316, P362 + P364, P403 + P233, P405

Ammonium Persulfate, AR — Code AR1014

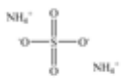
Specifications

Description	A white crystalline powder		Iron (Fe)	0.0005%	max.
Assay	99.0%	min.	Lead (Pb)	0.001%	max.
Acidity	0.1%	max.	Magnesium (Mg)	0.001%	max.
Water insoluble matter	0.003%	max.	Manganese (Mn)	0.00005%	max.
Chloride (Cl)	0.0005%	max.	Potassium (K)	0.02%	max.
Calcium (Ca)	0.001%	max.	Sodium (Na)	0.005%	max.
Copper (Cu)	0.0005%	max.			

Cat No.	Package	Size
AR1014-P500G	Plastic	500 g
AR1014-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1014-P5KG	Plastic	5 kg
AR1014-P25 KG	Plastic	25 kg

AMMONIUM SULFATE



$H_8N_2O_4S$ FW. 132.14 Density = 1.77 g/cm^3
CAS-No. 7783-20-2
EC No. 231-984-1

Ammonium Sulfate, AR — Code AR1015

Specifications (Meet A.C.S. Specifications)

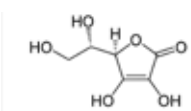
Assay	99.0%	min.
pH of a 5% solution at 25° C	5.0 - 6.0	
Insoluble matter	0.01%	max.
Residue after Ignition	0.01%	max.
Nitrate (NO_3)	0.001%	max.

Chloride (Cl)	5	ppm max.
Phosphate (PO_4)	5	ppm max.
Heavy metals (as Pb)	5	ppm max.
Iron (Fe)	5	ppm max.

Cat No.	Package	Size
AR1015-P500G	Plastic	500 g
AR1015-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1015-P5KG	Plastic	5 kg
AR1015-P25 KG	Plastic	25 kg

ASCORBIC ACID



$C_6H_8O_6$ FW. 176.12 Density = 1.65 g/cm^3
CAS-No. 50-81-7 Melting Point 190 C°
EC No. 200-066-2

Ascorbic acid, AR — Code AR1299

Specifications (Meet A.C.S. Specifications)

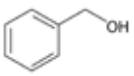
Characteristics	White or almost white, crystalline powder	
Identification	Positive reaction	
Clarity of Solution	Clear	
Color of Solution	BY_7	max.
Assay	99.0% - 100.5%	
pH	2.1 - 2.6	
Sulfated ash	0.1%	max.
Specific Rotation	+20.5° - +21.5°	
Oxalic Acid	0.2%	max.

Loss on Drying	0.4%	max.
Organic volatile impurities	Pass	
Heavy Metals	0.001%	max.
Arsenic (As)	0.0003%	max.
Cadmium (Cd)	0.0001%	max.
Copper (Cu)	0.0005%	max.
Iron (Fe)	0.0002%	max.
Lead (Pb)	0.0002%	max.
Mercury (Hg)	0.00001%	max.

Cat No.	Package	Size
AR1299-P500G	Plastic	500 g
AR1299-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1299-P5KG	Plastic	5 kg
AR1299-P25KG	Carton box	25 kg

BENZYL ALCOHOL



C_7H_8O	FW. 108.14	Density =	1.044 kg/L
CAS-No.	100-51-6	Melting point/range	-15 °C
UN No.	3334 (IATA)	Boiling point/range	205 °C
EC No.	202-859-9	EC-Index-No	603-057-00-5
Class:	9	Packing Group:	III

Warning

GHS: H302+ H332, H319; P261, P264, P270, P271, P280, P301 + P317, P304 + P340, P305 + P351 + P338, P337 + P317

Benzyl Alcohol, AR — Code AR1486

Specifications

Assay (by GC)	99.0%	min.
Color (APHA)	20	max.
Water (by Coulometry)	0.1%	max.
Residue after ignition	0.005%	max.
Acetophenone (GC)	0.02%	max.
Benzaldehyde (GC)	0.01%	max.

Cat No.	Package	Size
AR1444-G500ML	Glass	500 mL
AR1444-G1L	Glass	1 L
AR1444-G2.5L	Glass	2.5 L
AR1444-G4L	Glass	4 L

Cat No.	Package	Size
AR1444-P2.5L	Plastic	2.5 L
AR1444-P4L	Plastic	4 L
AR1444-P20L	Plastic	20 L
AR1444-P200L	Plastic	200 L

Benzyl Alcohol, For Headspace GC Analysis — Code HS1486

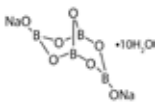
Specifications

Assay (by GC)	99.9%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acetophenone (GC)	0.01%	max.
Benzaldehyde (GC)	0.01%	max.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	1	ppm max.
Class 2 Solvents	10	ppm max.
Class 3 Solvents	50	ppm max.

Cat No.	Package	Size
HS1486-G500ML	Glass	500 mL
HS1486-G1L	Glass	1 L

Cat No.	Package	Size
HS1486-G2.5L	Glass	2.5 L

BORAX



$Na_2B_4O_7.10H_2O$ | FW. 381.37 | Density = | 1.72 g/cm^3
CAS-No. | 1303-96-4 | Melting Point | 75 °C
EC No. | 215-540-4 | EC-Index-No | 005-011-01-1

GHS: H319, H360FD; P203, P264, P280, P305 + P351 + P338, P318, P337 + P317, P405

Danger

Borax, AR (di-Sodium tetraborate decahydrate) Code AR1233

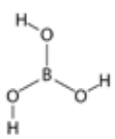
Specifications

Assay	99.5%	min.	Heavy metals (as Pb)	0.001%	max.
Substances insoluble in hydrochloric acid	0.005%	max.	Calcium (Ca)	0.005%	max.
Chloride (Cl)	0.002%	max.	Copper (Cu)	0.001%	max.
Phosphate (PO_4)	0.002%	max.	Iron (Fe)	0.0005%	max.
Sulfate (SO_4)	0.01%	max.			

Cat No.	Package	Size
AR1233-P500G	Plastic	500 g
AR1233-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1233-P5KG	Plastic	5 kg
AR1233-P25KG	Plastic	25 kg

BORIC ACID 1% SOLUTION



H_3BO_3 | FW. 61.83 | Density = | 1.00 kg/L
CAS-No. | 10043-35-3
EC No. | 233-139-2 | EC-Index-No | 005-007-00-2

GHS: H360FD , P203, P280, P318, P405

Danger

Boric Acid 1% Solution, AR Code AR1375

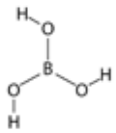
Specifications

Assay	1 ± 0.5%		Calcium (Ca)	0.001%	max.
Appearance	Clear, colorless solution		Iron (Fe)	0.0005%	max.
Arsenic (As)	0.0001%	max.	Lead (Pb)	0.001%	max.

Cat No.	Package	Size
AR1375-P500G	Plastic	2.5 g

Cat No.	Package	Size
AR1375-P1KG	Plastic	4 kg

BORIC ACID



H_3BO_3 FW. 61.83 Density = 1.44 g/cm^3
CAS-No. 10043-35-3 Melting Point = 185 °C
EC No. 233-139-2 EC-Index-No 005-007-00-2

Danger

GHS: H360D, P203, P280, P318, P405

Boric Acid, AR — Code AR1234

Specifications

Assay	99.5%	min.	Sulfate (SO_4)	0.002%	max.
Appearance of solution	Passes test		Arsenic (As)	0 0001%	max.
Substances insoluble in ethanol	Passes test		Calcium (Ca)	0.002%	max.
Chloride (Cl)	0.0005%	max.	Iron (Fe)	0.0005%	max.
Phosphate (PO_4)	0.0005%	max.	Lead (Pb)	0.001%	max.

Cat No.	Package	Size
AR1234-P500G	Plastic	500 g

Cat No.	Package	Size
AR1234-P20KG	Plastic	20 kg

Boric Acid, Pharma — Code BP1234

Specifications

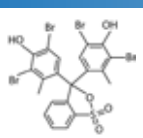
(Meets Ph.Eur,BP,USP/NF, JP)

Assay	99.5%	min.	Loss on drying (Silica gel)	0.5%	max.
Appearance	White or almost white,		Organic matter	Passes test	
	crystalline powder		Sulfate (SO_4)	0.045%	max.
Identity	Passes test		Heavy metals (as Pb)	0.001%	max.
Appearance of solution	Clear and colorless		Arsenic (As)	0.0005%	max.
pH of a 3.3% solution at 25°C	3.8-4.8		Iron (Fe)	0.001%	max.
Solubility in ethanol (96%)	Passes test		Lead (Pb)	0.001%	max.

Cat No.	Package	Size
BP1234-P500G	Plastic	500 g

Cat No.	Package	Size
BP1234-P25KG	Plastic	20 kg

BROMOCRESOL GREEN



$C_{21}H_{14}Br_4O_5S$ FW. 698.02
CAS-No. 76-60-8 Melting Point 217-218 °C
EC No. 200-972-8

Bromocresol Green Indicator, AR — Code AR1251

Specifications

Appearance	White or yellow-	Solubility in Ethanol	Passes test
	brown powder	Transition range pH: Yellow to blue	3.8 - 5.4

Cat No.	Package	Size
AR1251-G25G	Glass	25 g
AR1251-G50G	Glass	50 g

Cat No.	Package	Size
AR1251-G100G	Glass	100 g

BUFFER SOLUTION

Buffer Solution pH 4.0 — Code GN1016

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 4.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	- 0.01
10° C	- 0.01
15° C	- 0.01

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	- 0.01
25° C	± 0
30° C	+ 0.01
35° C	+ 0.02
40° C	+ 0.02
50° C	+ 0.03

Cat No.	Package	Size
GN1016-P1L	Plastic	1 L
GN1016-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1016-P4L	Plastic	4 L

Buffer Solution pH 4.0 (Red) — Code GN1017

Specifications

Appearance	Clear, red solution
pH at 25°C	pH 4.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	- 0.01
10° C	- 0.01
15° C	- 0.01

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	- 0.01
25° C	± 0
30° C	+ 0.01
35° C	+ 0.02
40° C	+ 0.02
50° C	+ 0.03

Cat No.	Package	Size
GN1017-P1L	Plastic	1 L
GN1017-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1017-P4L	Plastic	4 L

Buffer Solution pH 4.01 — Code GN1018

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 4.01 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	- 0.01
10° C	- 0.01
15° C	- 0.01

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	- 0.01
25° C	± 0
30° C	+ 0.01
35° C	+ 0.02
40° C	+ 0.02
50° C	+ 0.03

Cat No.	Package	Size
GN1018-P1L	Plastic	1 L
GN1018-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1018-P4L	Plastic	4 L

Buffer Solution pH 6.86 — Code GN1019

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 6.86 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.04
10° C	+ 0.03
15° C	+ 0.02

	ΔpH
20° C	+ 0.01
25° C	± 0
30° C	- 0.01
35° C	- 0.02
40° C	- 0.02
50° C	- 0.03

Cat No.	Package	Size
GN1019-P1L	Plastic	1 L
GN1019-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1019-P4L	Plastic	4 L

Buffer Solution pH 7.0 — Code GN1020

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 7.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.04
10° C	+ 0.02
15° C	+ 0.01

	ΔpH
20° C	+ 0.01
25° C	± 0
30° C	- 0.01
35° C	- 0.01
40° C	- 0.02
50° C	- 0.02

Cat No.	Package	Size
GN1020-P1L	Plastic	1 L
GN1020-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1020-P4L	Plastic	4 L

Buffer Solution pH 7.0 (Yellow) — Code GN1021

Specifications

Appearance	Clear, yellow solution
pH at 25°C	pH 7.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.04
10° C	+ 0.02
15° C	+ 0.01

	ΔpH
20° C	+ 0.01
25° C	± 0
30° C	- 0.01
35° C	- 0.01
40° C	- 0.02
50° C	- 0.02

Cat No.	Package	Size
GN1021-P1L	Plastic	1 L
GN1021-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1021-P4L	Plastic	4 L

Buffer Solution pH 7.0 (Green) — Code GN1302

Specifications

Appearance	Clear, green solution
pH at 25°C	pH 7.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.04
10° C	+ 0.02
15° C	+ 0.01

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	+ 0.01
25° C	± 0
30° C	- 0.01
35° C	- 0.01
40° C	- 0.02
50° C	- 0.02

Cat No.	Package	Size
GN1302-P1L	Plastic	1 L
GN1302-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1302-P4L	Plastic	4 L

Buffer Solution pH 9.0 — Code GN1036

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 9.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.20
10° C	+ 0.14
15° C	+ 0.10

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	+ 0.04
25° C	± 0
30° C	- 0.04
35° C	- 0.07
40° C	- 0.10
50° C	- 0.16

Cat No.	Package	Size
GN1036-P1L	Plastic	1 L
GN1036-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1036-P4L	Plastic	4 L

Buffer Solution pH 9.0 (Yellow) — Code GN1470

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 9.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.20
10° C	+ 0.14
15° C	+ 0.10

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	+ 0.04
25° C	± 0
30° C	- 0.04
35° C	- 0.07
40° C	- 0.10
50° C	- 0.16

Cat No.	Package	Size
GN1470-P1L	Plastic	1 L
GN1470-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1470-P4L	Plastic	4 L

Buffer Solution pH 10.0 — Code GN1022

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 10.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.20
10° C	+ 0.11
15° C	+ 0.07

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	+ 0.04
25° C	± 0
30° C	- 0.09
35° C	- 0.12
40° C	- 0.15
50° C	- 0.20

Cat No.	Package	Size
GN1022-P1L	Plastic	1 L
GN1022-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1022-P4L	Plastic	4 L

Buffer Solution pH 10.0 (Blue) — Code GN1023

Specifications

Appearance	Clear, blue solution
pH at 25°C	pH 10.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.20
10° C	+ 0.11
15° C	+ 0.07

Deviations of pH (ΔpH) at various temperatures:

	ΔpH
20° C	+ 0.04
25° C	± 0
30° C	- 0.09
35° C	- 0.12
40° C	- 0.15
50° C	- 0.20

Cat No.	Package	Size
GN1023-P1L	Plastic	1 L
GN1023-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1023-P4L	Plastic	4 L

Buffer Solution pH 10.01 — Code GN1285

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 10.00 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.20
10° C	+ 0.11
15° C	+ 0.07

Deviations of pH (ΔpH) at various temperatures:	
	ΔpH
20° C	+ 0.04
25° C	± 0
30° C	- 0.09
35° C	- 0.12
40° C	- 0.15
50° C	- 0.20

Cat No.	Package	Size
GN1285-P1L	Plastic	1 L
GN1285-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1285-P4L	Plastic	4 L

Buffer Solution pH 12.45 — Code GN1286

Specifications

Appearance	Clear, colorless solution
pH at 25°C	pH 12.45 ± 0.02
Traceable to NIST	
Deviations of pH (ΔpH) at various temperatures:	

	ΔpH
5° C	+ 0.72
10° C	+ 0.58
15° C	+ 0.35

Deviations of pH (ΔpH) at various temperatures:	
	ΔpH
20° C	+ 0.17
25° C	± 0
30° C	- 0.18
35° C	- 0.39
40° C	- 0.55
50° C	- 0.80

Cat No.	Package	Size
GN1286-P1L	Plastic	1 L
GN1286-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1286-P4L	Plastic	4 L

BUTAN-1-OL

$CH_3(CH_2)_3OH$	FW. 74.12	Density =	0.810 kg/L
CAS-No.	71-36-3	Melting Point	-89.5 °C°
UN No.	1120	Boiling Point	117 °C
EC No.	200-751-6	EC-Index-No	603-004-00-6
Class:	3	Packing Group:	III

Danger

GHS: H226, H302, H315, H318, H335, H336; P210, P233, P240, P242, P243, P261, P264, P270, P271, P280, P301 + P317, P302 + P352, P303 + P361 + P353, P304 + P340 , P305 + P354 + P338, P319, P330, P332 + P317, P362 + P364, P403 + P235, P405

Butan-1-ol, AR — Code AR1024

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Residue on Evaporation	0.001%	max.
Color (APHA)	10	max.	Butyl ether (GC.)	0.1%	max.
Water (by Coulometry)	0.1%	max.	Aldehydes and Ketones	0.002%	max.
Acidity (mEq./g.)	0.0005	max.	Carbonyl Compounds (as butyraldehyde)	0.01%	max.

Cat No.	Package	Size
AR1024-G500ML	Glass	500 mL
AR1024-G1L	Glass	1 L
AR1024-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1024-G4L	Glass	4 L
AR1024-M25L	Metal	25 L
AR1024-M200L	Metal	200 L

Butan-1-ol, RCI Premium — Code RP1024

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Aluminium (Al)	0.2	ppm max.
Identity (IR)	Passes test		Barium (Ba)	0.05	ppm max.
Appearance	Passes test		Boron (B)	0.01	ppm max.
Color (APHA)	10	max.	Cadmium (Cd)	0.02	ppm max.
Water (by Coulometry)	0.1%	max.	Calcium (Ca)	0.2	ppm max.
Acidity (mEq./g.)	0.0008	max.	Chromium (Cr)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Cobalt (Co)	0.01	ppm max.
2-Butanol (GC.)	0.05%	max.	Copper (Cu)	0.01	ppm max.
Butyl ether (GC.)	0.1%	max.	Iron (Fe)	0.05	ppm max.
Butyraldehyde (GC.)	0.01%	max.	Lead (Pb)	0.05	ppm max.
Dibutyl ether (GC.)	0.1%	max.	Magnesium (Mg)	0.05	ppm max.
Isobutanol (GC.)	0.15%	max.	Manganese (Mn)	0.01	ppm max.
Aldehydes & Ketones	0.002%	max.	Nickel (Ni)	0.01	ppm max.
Carbonyl Compounds (as butyraldehyde)	0.01%	max.	Tin (Sn)	0.05	ppm max.
Readily carbonizable substances	Passes test		Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1024-G500ML	Glass	500 mL
RP1024-G1L	Glass	1 L
RP1024-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1024-G4L	Glass	4 L
RP1024-M25L	Metal	25 L
RP1024-M200L	Metal	200 L

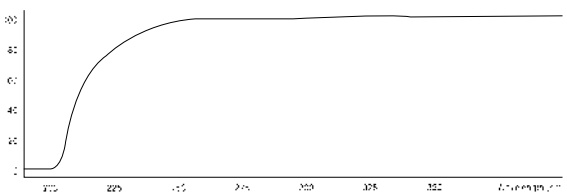
Butan-1-ol, HPLC — Code LC1024

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
310 nm	99%	min.
260 nm	95%	min.
250 nm	90%	min.
240 nm	85%	min.
230 nm	75%	min.

Fluorescence (as quinine)		
at 254 nm	2	ppb max.
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1024-G500ML	Glass	500 mL
LC1024-G1L	Glass	1 L

Cat No.	Package	Size
LC1024-G2.5L	Glass	2.5 L
LC1024-G4L	Glass	4 L

Butan-1-ol, UV-IR — Code IR1024

Specifications

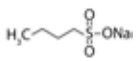
Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
270 nm	99%	min.
250 nm	95%	min.
230 nm	60%	min.
220 nm	30%	min.
Fluorescence (as quinine)		
at 254 nm	2	ppb max.
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1024-G500ML	Glass	500 mL
IR1024-G1L	Glass	1 L

Cat No.	Package	Size
IR1024-G2.5L	Glass	2.5 L
IR1024-G4L	Glass	4 L

BUTANESULFONIC ACID SODIUM SALT ANHYDROUS



$C_4H_9NaO_3S$	FW. 160.17	Melting Point	> 300 °C
CAS-No.	2386-54-1	EC No.	219-201-1

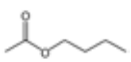
1-Butanesulfonic Acid Sodium Salt Anhydrous, HPLC — Code LC1497

Specifications

Description	White crystalline powder		Loss on drying (at 120 °C, vacuum)	2.0%	max.
Assay (Alkalimetric;	99.0%	min.	UV Transmission Levels, %T (0.005 mol/l in water)		
calculated on dried substance)			250 nm	98%	min.
Identity (IR)	Passes test		220 nm	90%	min.
pH value (10% Solution)	5.0 - 7.0		200 nm	70%	min.

Cat No.	Package	Size
LC1497-G25G	Glass	25 g

n-BUTYL ACETATE



$CH_3COO(CH_2)_3CH_3$	FW. 116.16	Density =	0.880 kg/L
CAS-No.	123-86-4	Melting Point	-76 °C
UN No.	1123	Boiling Point	126 °C
EC No.	204-658-1	EC-Index-No	607-025-00-1
Class:	3	Packing Group:	III

Warning

GHS: H226, H336, EUH066; P210, P233, P240, P242, P243, P261, P271, P280, P303 + P361 + P353, P304 + P340, P319, P403 + P235, P405

n-Butyl Acetate, AR — Code AR1025

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Color (APHA)	10	max.	Residue on Evaporation	0.0005%	max.
Water (by Coulometry)	0.1%	max.	Substances darkened by sulfuric acid	Passes test	

Cat No.	Package	Size
AR1025-G500ML	Glass	500 mL
AR1025-G1L	Glass	1 L
AR1025-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1025-G4L	Glass	4 L
AR1025-M25L	Metal	25 L
AR1025-M200L	Metal	200 L

n-Butyl Acetate, RCI Premium — Code RP1025

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
n-Butyl alcohol (GC.)	0.2%	max.
n-Butyl formate (GC.)	0.1%	max.
n-Butyl propionate (GC.)	0.1%	max.
Readily carbonizable substances	Passes test	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.

Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1025-G500ML	Glass	500 mL
RP1025-G1L	Glass	1 L
RP1025-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1025-G4L	Glass	4 L
RP1025-M25L	Metal	25 L
RP1025-M200L	Metal	200 L

n-Butyl Acetate, HPLC — Code LC1025

Specifications

Assay (by GC.)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
360 nm	99%	min.
320 nm	95%	min.
300 nm	90%	min.
280 nm	80%	min.
260 nm	50%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
LC1025-G500ML	Glass	500 mL
LC1025-G1L	Glass	1 L

Cat No.	Package	Size
LC1025-G2.5L	Glass	2.5 L
LC1025-G4L	Glass	4 L

n-Butyl Acetate, Electropure — Code EP1025

Specifications

Assay (by GC.)	99.5%	min.
Identity	Corresponds to IR spectrum	
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.5	max.
Specific resistance (MΩ.cm)	5	min.
Residue on Evaporation	10	ppm max.
n-Butanol (GC.)	0.8%	max.
n-Butyl formate (GC.)	0.5%	max.
n-Butyl propionate (GC.)	0.5%	max.
Heavy metals (as Pb)	0.2	ppm max.
Aluminium (Al)	0.2	ppm max.
Antimony (Sb)	0.01	ppm max.
Arsenic (As)	0.01	ppm max.
Barium (Ba)	0.1	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.2	ppm max.

Cat No.	Package	Size
EP1025-G500ML	Glass	500 mL
EP1025-G1L	Glass	1 L
EP1025-G2.5L	Glass	2.5 L

Cat No.	Package	Size
EP1025-G4L	Glass	4 L
EP1025-M25L	Metal	25 L
EP1025-M200L	Metal	200 L

n-Butyl Acetate, VLSI — Code VL1025

Specifications

Assay (by GC.)	99.5%	min.
Identity	Corresponds to IR spectrum	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.5	max.
Specific resistance (MΩ.cm)	5	min.
Residue on Evaporation	10	ppm max.
n-Butanol (GC.)	0.5%	max.
n-Butyl formate (GC.)	0.2%	max.
n-Butyl propionate (GC.)	0.2%	max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	50	ppb max.
Antimony (Sb)	10	ppb max.
Arsenic (As)	10	ppb max.
Barium (Ba)	20	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	10	ppb max.
Gold (Au)	20	ppb max.

Indium (In)	10	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	10	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	10	ppb max.
Platinum (Pt)	50	ppb max.
Potassium (K)	20	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	10	ppb max.
Thallium (Tl)	10	ppb max.
Tin (Sn)	20	ppb max.
Titanium (Ti)	20	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	20	ppb max.
Zirconium (Zr)	20	ppb max.
Particle/ml :		
0.5 µm and greater	30	max.
1.0 µm and greater	8	max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1025-G500ML	Glass	500 mL
VL1025-G1L	Glass	1 L
VL1025-G2.5L	Glass	2.5 L

Cat No.	Package	Size
VL1025-G4L	Glass	4 L
VL1025-M25L	Metal	25 L
VL1025-M200L	Metal	200 L

CALCIUM CHLORIDE DIHYDRATE

$CaCl_2 \cdot 2H_2O$

$CaCl_2.2H_2O$	FW. 147.01	Density =	1.85 g/cm^3
CAS-No.	10035-04-8	Melting Point	176 °C
EC No.	233-140-8	EC-Index-No	017-013-00-2

Warning

GHS: H319; P264, P280, P305 + P351 + P338, P337 + P317

Calcium Chloride Dihydrate, AR — Code AR1235

Specifications (Meet A.C.S. Specifications)

Assay	99.0 - 105.0%		Heavy metals (as Pb)	0.0005%	max.
Identification	Passes test		Barium (Ba)	0.005%	max.
pH (5% solution at 25 °C)	4.5 - 8.5		Iron (Fe)	0.001%	max.
Insoluble matter	0.01%	max.	Magnesium (Mg)	0.005%	max.
Oxidizing substances (as NO_3)	0.003%	max.	Potassium (K)	0.01%	max.
Sulfate (SO_4)	0.01%	max.	Sodium (Na)	0.02%	max.
Ammonium (NH_4)	0.005%	max.	Strontium (Sr)	0.1%	max.

Cat No.	Package	Size
AR1235-P500G	Plastic	500 g
AR1235-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1235-P5KG	Plastic	5 kg
AR1235-P25KG	Plastic	25 kg

Calcium Chloride Dihydrate, Pharma — Code BP1235

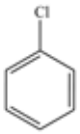
Specifications (Meets Ph.Eur, BP, USP/NF, JP)

Assay	99.0 - 103.0%		Sulfate (SO_4)	0.02%	max.
Appearance	White or almost white,		Heavy metals (as Pb)	0.001%	max.
	crystalline powder hygroscopic		Aluminium (Al)	0.0001%	max.
Identity	Passes test		Arsenic (As)	0.0002%	max.
Appearance of solution	Passes test		Barium (Ba)	Passes test	
Solubility	Passes test		Iron (Fe)	0.001%	max.
pH of a 5% solution at 25 °C	4.5 - 9.2		Magnesium and Alkali metals	0.5%	max.
Acidity or Alkalinity	Passes test		Iron, Aluminium or Phosphate	Passes test	
Hypochlorite	Passes test				

Cat No.	Package	Size
BR1235-P500G	Plastic	500 g
BR1235-P1KG	Plastic	1 kg

Cat No.	Package	Size
BR1235-P5KG	Plastic	5 kg
BR1235-P25KG	Plastic	25 kg

CHLOROBENZENE



C_6H_5Cl	FW. 112.56	Density =	1.110 kg/L
CAS-No.	108-90-7	Melting Point	-45 °C
UN No.	1134	Boiling Point	132 °C
EC No.	203-628-5	EC-Index-No	602-033-00-1
Class:	3	Packing Group:	III

Warning

GHS: H226, H315, H332, H411; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P302 + P352, P303 + P361 + P353, P304 + P340, P332 + P317, P362 + P364, P391, P403 + P235

Chlorobenzene, AR — Code AR1026

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Color (APHA)	30	max.	Residue on Evaporation	0.002%	max.
Water (by Coulometry)	0.05%	max.			

Cat No.	Package	Size
AR1026-G500ML	Glass	500 mL
AR1026-G1L	Glass	1 L
AR1026-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1026-G4L	Glass	4 L
AR1026-M25L	Metal	25 L
AR1026-M200L	Metal	200 L

Chlorobenzene, RCI Premium — Code RP1026

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Calcium (Ca)	0.2	ppm max.
Identity (IR)	Passes test		Chromium (Cr)	0.01	ppm max.
Color (APHA)	30	max.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.05%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Alkalinity (mEq./g)	0.0005	max.	Lead (Pb)	0.05	ppm max.
Residue on Evaporation	0.002%	max.	Magnesium (Mg)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Manganese (Mn)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Nickel (Ni)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Tin (Sn)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1026-G500ML	Glass	500 mL
RP1026-G1L	Glass	1 L
RP1026-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1026-G4L	Glass	4 L
RP1026-M25L	Metal	25 L
RP1026-M200L	Metal	200 L

1-CHLOROBUTANE

$CH_3(CH_2)_3Cl$	FW. 92.58	Density =	0.886 kg/L
CAS-No.	109-69-3	Melting Point	-123 °C
UN No.	1127	Boiling Point	78.4 °C
EC No.	203-696-6	EC-Index-No	602-059-00-3
Class:	3	Packing Group:	II

Danger

GHS: H225; P210, P233, P240, P242, P243, P280, P303 + P361 + P353, P403 + P235

1-Chlorobutane, AR — Code AR1031

Specifications

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.03%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1031-G500ML	Glass	500 mL
AR1031-G1L	Glass	1 L
AR1031-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1031-G4L	Glass	4 L
AR1031-M25L	Metal	25 L
AR1031-M200L	Metal	200 L

1-Chlorobutane, RCI Premium — Code RP1031

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Chromium (Cr)	0.01	ppm max.
Identity (IR)	Passes test		Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.03%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Magnesium (Mg)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Manganese (Mn)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Nickel (Ni)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.	Tin (Sn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1031-G500ML	Glass	500 mL
RP1031-G1L	Glass	1 L
RP1031-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1031-G4L	Glass	4 L
RP1031-M25L	Metal	25 L
RP1031-M200L	Metal	200 L

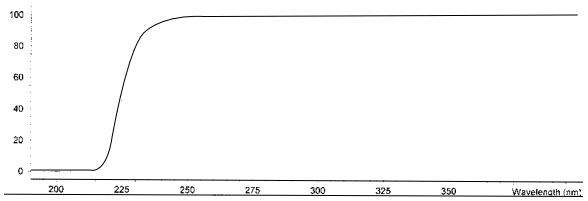
1-Chlorobutane, HPLC — Code LC1031

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
300 nm	99%	min.
280 nm	98%	min.
260 nm	95%	min.
240 nm	85%	min.
230 nm	65%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

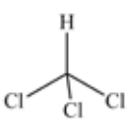
Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1031-G500ML	Glass	500 mL
LC1031-G1L	Glass	1 L

Cat No.	Package	Size
LC1031-G2.5L	Glass	2.5 L
LC1031-G4L	Glass	4 L

CHLOROFORM



$CHCl_3$	FW. 119.38	Density =	1.479 kg/L
CAS-No.	67-66-3	Melting Point	-63 °C
UN No.	1888	Boiling Point	61 °C
EC No.	200-663-8	EC-Index-No	602-006-00-4
Class:	6.1	Packing Group:	III

Danger

GHS: H302, H315, H319, H331, H336, H351, H361D, H372; P203, P260, P264, P270, P271, P280, P301 + P317, P330, P302 + P352, P304 + P340, P305 + P351 + P338, P316 + P318, P330, P332 + P317, P337 + P317, P362 + P364, P403 + P233, P405

Chloroform, AR — Code AR1027E

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Acetone and Aldehyde	Passes test	
Acid and Chloride	Passes test	

Free Chlorine (Cl)	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	
Suitability for use in dithizone tests	Passes test	
Lead (Pb)	0.05	ppm max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
AR1027E-G500ML	Glass	500 mL
AR1027E-G1L	Glass	1 L
AR1027E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1027E-G4L	Amber Glass	4 L
AR1027E-M25L	Metal	25 L
AR1027E-M250KG	Metal	250 kg

Chloroform, RCI Premium — Code RP1027E

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Carbon tetrachloride (GC.)	0.01 %	max.
Dichloromethane (GC.)	0.01 %	max.
Ethanol (GC.)	0.6 - 1.0 %	
Related Substances (GC.)	0.7%	max.
Tetrachloroethylene (GC.)	0.01 %	max.
Trichloroethylene (GC.)	0.01 %	max.
Acid and Chloride	Passes test	
Aldehydes and ketones (as C_3H_6O)	0.001%	max.
Carbonyl compounds (as CO)	0.005%	max.
Chloride (Cl)	0.00002%	max.
Free acid (as HCl)	0.0002%	max.
Free Chlorine (Cl)	0.00003%	max.
Readily carbonizable substances	Passes test	

(Meet A.C.S. Specifications)

Suitability for use in dithizone tests	Passes test	
Aluminium (Al)	0.5	ppm max.
Barium (Ba)	0.1	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
RP1027E-G500ML	Glass	500 mL
RP1027E-G1L	Glass	1 L
RP1027E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1027E-G4L	Glass	4 L
RP1027E-M20L	Metal	20 L
RP1027E-M250KG	Metal	250 kg

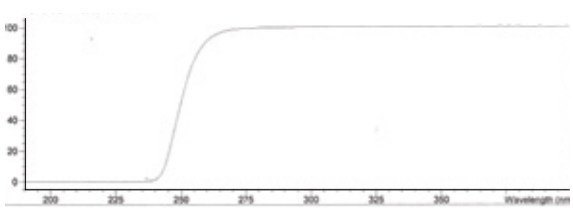
Chloroform, HPLC — Code LC1027E

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Acetone and Aldehyde	Passes test	
Acid and Chloride	Passes test	
Free Chlorine (Cl)	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	
Suitability for use in dithizone tests	Passes test	
Lead (Pb)	0.05	ppm max.
UV Transmission Levels (%T)		
280 nm	99%	min.
270 nm	98%	min.
260 nm	85%	min.
250 nm	50%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Stabilized with about 1% Ethanol.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1027E-G500ML	Glass	500 mL
LC1027E-G1L	Glass	1 L

Cat No.	Package	Size
LC1027E-G2.5L	Glass	2.5 L
LC1027E-G4L	Glass	4 L

Chloroform, GC-MS — Code GM1027E

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0003%	max.
Carbon tetrachloride (GC.)	0.01%	max.
Dichloromethane (GC.)	0.01%	max.
Free Chlorine (Cl)	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak, (retention range n-undecane to n-tetracontane)		

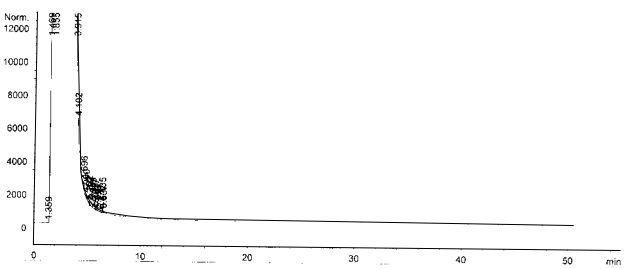
Stabilized with about 1% Ethanol.

Cat No.	Package	Size
GM1027E-G500ML	Glass	500 mL
GM1027E-G1L	Glass	1 L
GM1027E-G2.5L	Glass	2.5 L
GM1027E-G4L	Glass	4 L

Chloroform, Pesticide — Code PC1027E

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Stabilized with about 1% Ethanol.

Cat No.	Package	Size
PC1027EG500ML	Glass	500 mL
PC1027E-G1L	Glass	1 L
PC1027E-G2.5L	Glass	2.5 L
PC1027E-G4L	Glass	4 L

Chloroform, LVI-GC — Code LV1027E

Specifications

Assay (by GC.)	99.90%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Stabilized with about 1% Ethanol.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1027E-G500ML	Glass	500 mL
LV1027E-G1L	Glass	1 L
LV1027E-G2.5L	Glass	2.5 L
LV1027E-G4L	Glass	4 L

Chloroform, UV-IR — Code IR1027E

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
280 nm	98%	min.
260 nm	90%	min.
250 nm	50%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Stabilized with about 1% Ethanol.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1027E-G500ML	Glass	500 mL
IR1027E-G1L	Glass	1 L
IR1027E-G2.5L	Glass	2.5 L
IR1027E-G4L	Glass	4 L

Chloroform, Peptide Synthesis — Code PS1027E

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Free Amines	0.001%	max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
PS1027E-G500ML	Glass	500 mL
PS1027E-G1L	Glass	1 L
PS1027E-G2.5L	Glass	2.5 L
PS1027E-G4L	Glass	4 L

Chloroform, Anhydrous (10 ppm) — Code AH1028E

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.001%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
AH1028E-G500ML	Glass	500 mL
AH1028E-G1L	Glass	1 L
AH1028E-G2.5L	Glass	2.5 L
AH1028E-G4L	Glass	4 L

Chloroform, Anhydrous (50 ppm) — Code AH1029E

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
AH1029E-G500ML	Amber Glass	500 mL
AH1029E-G1L	Amber Glass	1 L
AH1029E-G2.5L	Amber Glass	2.5 L
AH1029E-G4L	Amber Glass	4 L

Chloroform, Electropure — Code EP1027E

Specifications

Assay (by GC.)	99.8%	min.
Identity	Corresponds to IR spectrum	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Carbonyl Compounds (as CO)	0.005%	max.
Free Chlorine (Cl)	0.0005%	max.
Chloride (Cl)	0.0001%	max.
Acetone and Aldehyde	Passes test	
Acid and Chloride	Passes test	
Substances darkened by sulfuric acid	Passes test	
Suitability for use in dithizone tests	Passes test	
Carbon tetrachloride (GC.)	0.01%	max.
Dichloromethane (GC.)	0.01%	max.
Tetrachloroethylene (GC.)	0.01%	max.
Trichloroethylene (GC.)	0.01%	max.
Aluminium (Al)	0.5	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.1	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
EP1027E-G500ML	Glass	500 mL
EP1027E-G1L	Glass	1 L
EP1027E-G2.5L	Glass	2.5 L
EP1027E-G4L	Glass	4 L
EP1027E-M20L	Metal	20 L
EP1027E-M250KG	Metal	250 kg

Chloroform, Pharma — Code BP1027E

Specifications

(Meets Reag. Ph.Eur, BP, ACS)

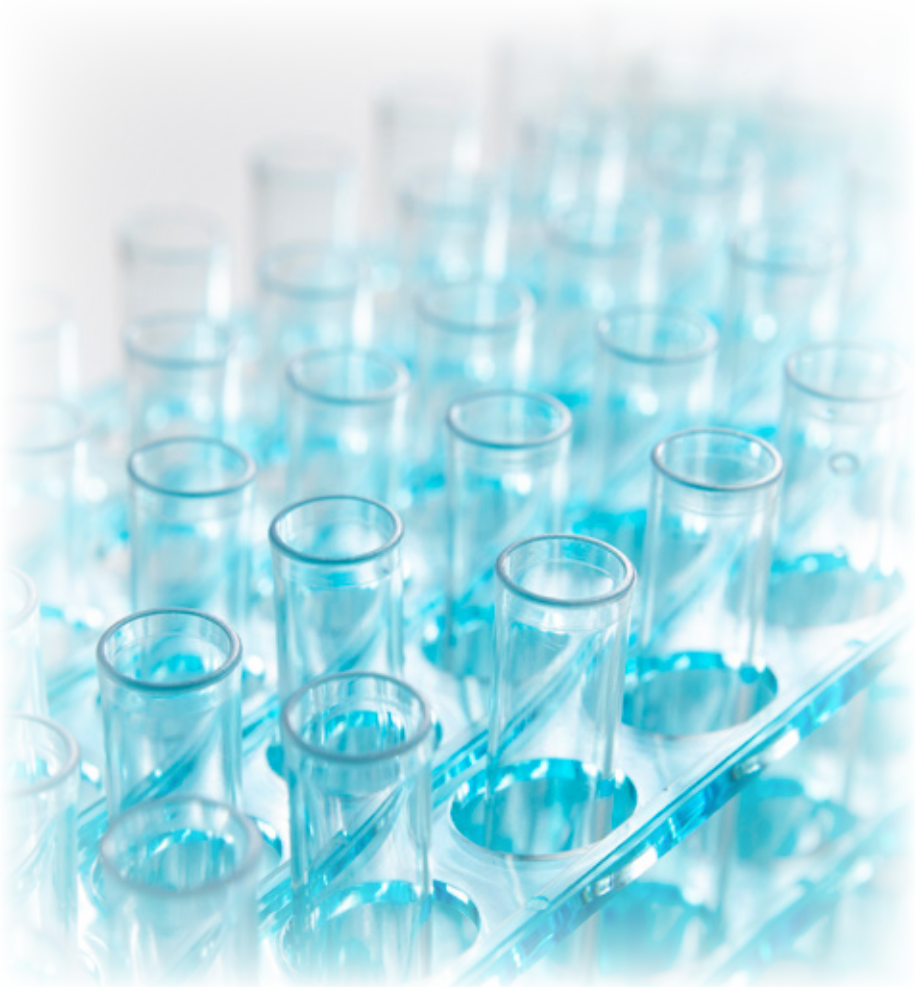
Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Acid and Chloride	Passes test	
Acidity or Alkalinity	Passes test	
Residue on Evaporation	0.001%	max.
Acetone and Aldehyde	0.005%	max.
Related substances (GC.)	1.0%	max.
Carbonyl compounds (as CO)	0.005%	max.

Dichloromethane (GC)	0.01%	max.
Tetrachloromethane (GC)	0.01%	max.
Tetrachloroethylene (GC.)	0.01%	max.
Trichloroethylene (GC.)	0.01%	max.
Foreign chlorine compounds	Passes test	
Substances darkened by sulfuric acid	Passes test	
Suitability for use in dithizone tests	Passes test	
Chloride (Cl)	1	ppm max.
Free Chlorine (Cl)	Passes test	
Lead (Pb)	0.05	ppm max.

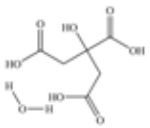
Stabilized with about 1% ethanol.

Cat No.	Package	Size
BP1027E-G500ML	Glass	500 mL
BP1027E-G1L	Glass	1 L
BP1027E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
BP1027E-G4L	Glass	4 L
BP1027E-M25L	Metal	25 L
BP1027E-M250KG	Metal	250 kg



CITRIC ACID MONOHYDRATE



$C_6H_8O_7.H_2O$	FW. 210.14	Density =	1.54 g/cm^3
CAS-No.	5949-29-1	Melting Point	135-152 °C
EC No.	201-069-1		
GHS:	H319; P264, P280, P305 + P351 + P338, P337 + P313		

Warning

Citric Acid Monohydrate, AR — Code AR1236

Specifications

Assay	99.5%	min.	Phosphate (PO_4)	0.001%	max.
Insoluble in water	0.005%	max.	Sulfate (SO_4)	0.005%	max.
Residue on Ignition	0.02%	max.	Calcium (Ca)	0.005%	max.
Readily carbonisable substances	Passes test		Copper (Cu)	0.0005%	max.
Chloride (Cl)	0.0005%	max.	Iron (Fe)	0.0005%	max.
Oxalate	0.05%	max.	Lead (Pb)	0.0005%	max.

Cat No.	Package	Size
AR1236-P500G	Plastic	500 g
AR1236-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1236-P5KG	Plastic	5 kg
AR1236-P25KG	Plastic	25 kg

Citric Acid Monohydrate, Pharma — Code BP1236

Specifications

(Meets Ph.Eur, BP, JP)

Assay	99.5 - 100.5%		Water	7.5 - 9.0%	
Appearance	White or almost white, crystalline		Residue after Ignition	0.1%	max.
	powder, colorless crystals or		Readily carbonisable substances	Passes test	
	granules, efflorescent		Oxalic acid	360	ppm max.
Identity	Passes test		Sulfate (SO_4)	0.015%	max.
Appearance of solution	Clear and not more intensely		Heavy metals (as Pb)	0.001%	max.
	coloured than reference		Aluminium (Al)	0.00002%	max.
	solution Y_7, BY_7 or GY_7		Bacterial endotoxins	0.5	IU/mg max.
Solubility	Passes test				

Cat No.	Package	Size
BP1236-P500G	Plastic	500 g
BP1236-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1236-P5KG	Plastic	5 kg
BP1236-P25KG	Plastic	25 kg

CLEAND-α

CAS-No.	1310-58-3	Density =	1.020 - 1.040 kg/L
EC-Index-No	019-002-00-8	EC No.	215-181-3
GHS:	H315, H319; P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364		

Warning

CleanD-α — Code CS1506

Specifications

Appearance	Clear and transparent liquid	Specific gravity at 20 °C	1.0200 - 1.0400
Odour	Characteristics	Viscosity at 20 °C	5.00 - 20.00 cps.
pH of a 100% solution at 20°C	> 13		

Cat No.	Package	Size
CS1506-P1L	Plastic	1 L

Cat No.	Package	Size
CS1506-P5L	Plastic	5 L

CLEANING SOLUTION S

UN No.	2240	Density =	1.84 kg/L
Class:	8	Packing Group:	I
GHS:	H314, H317, H334, H340, H350, H360FD, H373, H412; P203, P260, P264, P272, P273, P280, P284, P301 + P330 + P331, P302 + P352, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P318, P319, P333 + P317, P342 + P316, P362 + P364, P363, P405		

Danger

Cleaning Solution S — Code GN1032

For cleaning glass vessels.

Specifications

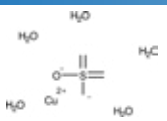
Sulfuric acid	≥ 92%	Potassium dichromate	≥ 1.3%

Corrosive, Oxidizing

Cat No.	Package	Size
GN1032-G500ML	Glass	500 mL
GN1032-G1L	Glass	1 L

Cat No.	Package	Size
GN1032-G2.5L	Glass	2.5 L
GN1032-G4L	Glass	4 L

COPPER(II) SULFATE PENTAHYDRATE



$CuSO_4.5H_2O$	FW. 249.68	Density =	2.284 g/cm^3
CAS-No.	7758-99-8		
UN No.	3077		
EC No.	231-847-6	EC-Index-No	029-004-00-0
Class:	9	Packing group	III

GHS: H302, H318, H410; P264, P270, P273, P280, P301 + P317, P305 + P354 + P338, P330, P391

Danger

Copper (II) Sulfate Pentahydrate, AR — Code AR1272

Specifications

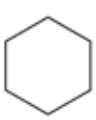
Description	Blue Solid	
Assay	99.0 - 100.5%	
Insoluble matter	0.005%	max.
Nitrogen Compounds (as N)	0.001%	max.
Loss on drying at 250 °C	35.0 - 36.5%	
Chloride (Cl)	0.001%	max.
Calcium (Ca)	0.005%	max.

Iron (Fe)	0.003%	max.
Lead (Pb)	0.005%	max.
Nickel (Ni)	0.005%	max.
Potassium (K)	0.01%	max.
Sodium (Na)	0.02%	max.
Zinc (Zn)	0.03%	max.

Cat No.	Package	Size
AR1272-P500G	Plastic	500 g
AR1272-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1272-P5KG	Plastic	5 kg
AR1272-P25KG	Plastic	25 kg

CYCLOHEXANE



C_6H_{12}	FW. 84.16	Density =	0.779 kg/L
CAS-No.	110-82-7	Melting Point	6 °C
UN No.	1145	Boiling Point	81 °C
EC No.	203-806-2	EC-Index-No	601-017-00-1
Class:	3	Packing Group:	II

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Danger

Cyclohexane, AR — Code AR1033

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.

Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aromatics	0.05%	max.
Substances darkened by sulfuric acid	Passes test	

Cat No.	Package	Size
AR1033-G500ML	Glass	500 mL
AR1033-G1L	Glass	1 L
AR1033-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1033-G4L	Glass	4 L
AR1033-M25L	Metal	25 L
AR1033-M200L	Metal	200 L

Cyclohexane, RCI Premium — Code RP1033

Specifications

(Meet A.C.S. Specifications and USP/NF)

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Cyclohexene (GC.)	0.05%	max.
Ethanol (GC.)	0.01%	max.
Aromatics	0.05%	max.
Readily carbonizable substances	Passes test	
Substances darkened by sulfuric acid	Passes test	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.

Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1033-G500ML	Glass	500 mL
RP1033-G1L	Glass	1 L
RP1033-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1033-G4L	Glass	4 L
RP1033-M25L	Metal	25 L
RP1033-M200L	Metal	200 L

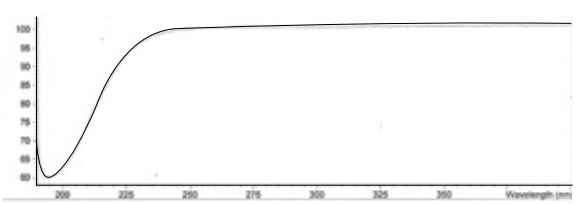
Cyclohexane, HPLC — Code LC1033

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	80%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



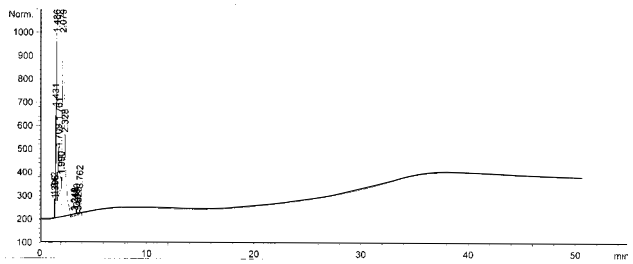
Cat No.	Package	Size
LC1033-G500ML	Glass	500 mL
LC1033-G1L	Glass	1 L
LC1033-G2.5L	Glass	2.5 L

Cat No.	Package	Size
LC1033-G4L	Glass	4 L
LC1033-M25L	Metal	25 L
LC1033-M200L	Metal	200 L

Cyclohexane, Pesticide — Code PC1033

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1033-G500ML	Glass	500 mL
PC1033-G1L	Glass	1 L

Cat No.	Package	Size
PC1033-G2.5L	Glass	2.5 L
PC1033-G4L	Glass	4 L

Cyclohexane, LVI-GC — Code LV1033

Specifications

Assay (by GC.)	99.90%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.05	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1033-G500ML	Glass	500 mL
LV1033-G1L	Glass	1 L
LV1033-G2.5L	Glass	2.5 L

Cat No.	Package	Size
LV1033-G4L	Glass	4 L
LV1033-M25L	Metal	25 L
LV1033-M200L	Metal	200 L

Cyclohexane, UV-IR — Code IR1033

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
250 nm	98%	min.

240 nm	90%	min.
230 nm	80%	min.
220 nm	50%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1033-G500ML	Glass	500 mL
IR1033-G1L	Glass	1 L

Cat No.	Package	Size
IR1033-G2.5L	Glass	2.5 L
IR1033-G4L	Glass	4 L

Cyclohexane, Extropure — Code XP1033

Specifications

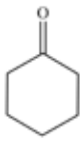
Assay (by GC.)	99.8%	min.
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Cyclohexene (GC.)	0.05%	max.
Ethanol (GC.)	0.01%	max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	50	ppb max.
Arsenic (As)	20	ppb max.
Barium (Ba)	10	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.

Copper (Cu)	10	ppb max.
Gallium (Ga)	20	ppb max.
Germanium (Ge)	20	ppb max.
Gold (Au)	20	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	20	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	20	ppb max.
Potassium (K)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	20	ppb max.
Zinc (Zn)	50	ppb max.
Silicone oil	Free	

Cat No.	Package	Size
XP1033-G500ML	Amber Glass	500 mL
XP1033-G1L	Amber Glass	1 L
XP1033-G2.5L	Amber Glass	2.5 L

Cat No.	Package	Size
XP1033-G4L	Amber Glass	4 L
XP1033-M25L	Metal	25 L
XP1033-M200L	Metal	200 L

CYCLOHEXANONE



$C_6H_{10}O$	FW. 98.14	Density =	0.945 kg/L
CAS-No.	108-94-1	Melting Point	-31 °C
UN No.	1915	Boiling Point	156.6 °C
EC No.	203-631-1	EC-Index-No	606-010-00-7
Class:	3	Packing Group:	III

Danger

GHS: H226, H302 + H312 + H332, H315, H318; P210, P233, P240, P242, P243, P261, P264, P270, P271, P280, P301 + P317, P302 + P352, P303 + P361 + P353, P304 + P340, P305 + P354 + P338, P330, P332 + P317, P362 + P364, P403 + P235

Cyclohexanone, AR — Code AR1034

Specifications

Assay (by GC.)	99.0%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.1%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1034-G500ML	Glass	500 mL
AR1034-G1L	Glass	1 L
AR1034-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1034-G4L	Glass	4 L
AR1034-M25L	Metal	25 L
AR1034-M200L	Metal	200 L

Cyclohexanone, RCI Premium — Code RP1034

Specifications

Assay (by GC.)	99.0%	min.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.1%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Magnesium (Mg)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Manganese (Mn)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Nickel (Ni)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.	Tin (Sn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.
Chromium (Cr)	0.01	ppm max.			

Cat No.	Package	Size
RP1034-G500ML	Glass	500 mL
RP1034-G1L	Glass	1 L
RP1034-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1034-G4L	Glass	4 L
RP1034-M25L	Metal	25 L
RP1034-M200L	Metal	200 L

CYCLOPENTANE 95%

C_5H_{10}	FW. 70.14	Density =	0.749 kg/L
CAS-No.	287-92-3	Melting Point	-93 °C
UN No.	1146	Boiling Point	49 °C
EC No.	206-016-6	EC-Index-No	601-030-00-2
Class:	3	Packing Group:	II

Danger

GHS: H225, H412; P210, P233, P240, P242 , P243, P273, P280, P303 + P361 + P353, P403 + P235

Cyclopentane 95%, AR — Code AR1037

Specifications

Assay (by GC.)	95.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aromatics	0.05%	max.

Cat No.	Package	Size
AR1037-G500ML	Glass	500 mL
AR1037-G1L	Glass	1 L
AR1037-G2.5L	Glass	2.5 L
AR1037-G4L	Glass	4 L
AR1037-M25L	Metal	25 L
AR1037-M200L	Metal	200 L

CYCLOPENTANE 99%

C_5H_{10}	FW. 70.14	Density =	0.749 kg/L
CAS-No.	287-92-3	Melting Point	-93 °C
UN No.	1146	Boiling Point	49 °C
EC No.	206-016-6	EC-Index-No	601-030-00-2
Class:	3	Packing Group:	II

Danger

GHS: H225, H412; P210, P233, P240, P242 , P243, P273, P280, P303 + P361 + P353, P403 + P235

Cyclopentane 99%, AR — Code AR1035

Specifications

Assay (by GC.)	99.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aromatics	0.05%	max.

Cat No.	Package	Size
AR1035-G500ML	Glass	500 mL
AR1035-G1L	Glass	1 L
AR1035-G2.5L	Glass	2.5 L
AR1035-G4L	Glass	4 L
AR1035-M25L	Metal	25 L
AR1035-M200L	Metal	200 L

Cyclopentane 99%, RCI Premium — Code RP1035

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aromatics	0.05%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.

Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1035-G500ML	Glass	500 mL
RP1035-G1L	Glass	1 L
RP1035-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1035-G4L	Glass	4 L
RP1035-M25L	Metal	25 L
RP1035-M200L	Metal	200 L

Cyclopentane 99%, UV-IR — Code IR1035

Specifications

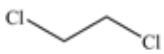
Assay (by GC.)	99.0%	min.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
250 nm	98%	min.
240 nm	95%	min.
220 nm	80%	min.
200 nm	30%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1035-G500ML	Glass	500 mL
IR1035-G1L	Glass	1 L

Cat No.	Package	Size
IR1035-G2.5L	Glass	2.5 L
IR1035-G4L	Glass	4 L

1,2-DICHLOROETHANE



$C_2H_4Cl_2$	FW. 98.96	Density =	1.250 kg/L
CAS-No.	107-06-2	Melting Point	-35 °C
UN No.	1184	Boiling Point	83.5 °C
EC No.	203-458-1	EC-Index-No	602-012-00-7
Class:	3 (6.1)	Packing Group:	II

Danger

GHS: H225, H302, H315, H319, H331, P335, H350; P203, P210, P233, P240, P242, P243, P261, P264, P270, P271, P280, P301 + P317, P302 + P352, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P316, P330, P332 + P317, P337 + P317, P362 + P364, P403 + P235, P405

1,2-Dichloroethane, AR — Code AR1038

Specifications

Assay (by GC.)	99.8%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.05%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1038-G500ML	Glass	500 mL
AR1038-G1L	Glass	1 L
AR1038-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1038-G4L	Glass	4 L
AR1038-M20L	Metal	20 L
AR1038-M200L	Metal	200 L

1,2-Dichloroethane, RCI Premium — Code RP1038

Specifications

Assay (by GC.)	99.8%	min.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.05%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Magnesium (Mg)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Manganese (Mn)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Nickel (Ni)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.	Tin (Sn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.
Chromium (Cr)	0.01	ppm max.			

Cat No.	Package	Size
RP1038-G500ML	Glass	500 mL
RP1038-G1L	Glass	1 L
RP1038-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1038-G4L	Glass	4 L
RP1038-M20L	Metal	20 L
RP1038-M200L	Metal	200 L

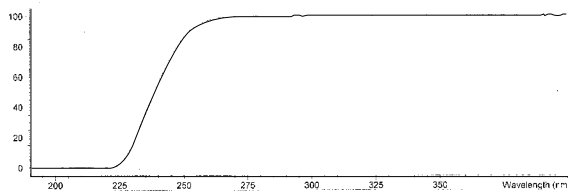
1,2-Dichloroethane, HPLC — Code LC1038

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
300 nm	99%	min.
280 nm	98%	min.
260 nm	90%	min.
250 nm	50%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1038-G500ML	Glass	500 mL
LC1038-G1L	Glass	1 L

Cat No.	Package	Size
LC1038-G2.5L	Glass	2.5 L
LC1038-G4L	Glass	4 L

1,2-Dichloroethane, UV-IR — Code IR1038

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
260 nm	98%	min.

250 nm	90%	min.
240 nm	80%	min.
230 nm	30%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1038-G500ML	Glass	500 mL
IR1038-G1L	Glass	1 L

Cat No.	Package	Size
IR1038-G2.5L	Glass	2.5 L
IR1038-G4L	Glass	4 L

DICHLOROMETHANE

CH_2Cl_2	FW. 84.93	Density =	1.330 Kg/L
CAS-No.	75-09-2	Melting Point	-95 °C
UN No.	1593	Boiling Point	40 °C
EC No.	200-838-9	EC-Index-No	602-004-00-3
Class:	6.1	Packing Group:	III

Danger

GHS: H315, H319, H336, H351; P203, P261, P264, P271, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P318, P319, P332 + P317, P337 + P317, P362 + P364, P403 + P233, P405

Dichloromethane, AR — Code AR1040A

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.

(Meet A.C.S. Specifications)

Residue on Evaporation	0.001%	max.
Free Chlorine (Cl)	0.0002%	max.

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
AR1040A-G500ML	Glass	500 mL
AR1040A-G1L	Glass	1 L
AR1040A-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1040A-G4L	Glass	4 L
AR1040A-M25L	Metal	25 L
AR1040A-M200L	Metal	200 L

Dichloromethane, RCI Premium — Code RP1040A

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Carbon tetrachloride (GC.)	0.005%	max.
Chloroform (GC.)	0.005%	max.
Ethanol (GC.)	0.02%	max.
Methanol (GC.)	0.1%	max.
Chloride (Cl)	0.0001%	max.
Free Chlorine (Cl)	0.00002%	max.
Matter discoloured by H_2SO_4 (APHA)	100	max.
Fluorescence (as quinine)		
at 365 nm	2.0	ppb max.
Aluminium (Al)	0.2	ppm max.

(Meet A.C.S. Specifications)

Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
RP1040A-G500ML	Glass	500 ML
RP1040A-G1L	Glass	1 L
RP1040A-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1040A-G4L	Glass	4 L
RP1040A-M25L	Metal	25 L
RP1040A-M200L	Metal	200 L

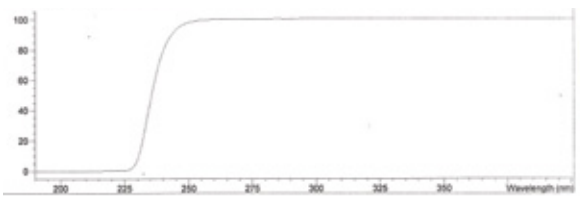
Dichloromethane, HPLC — Code LC1040A

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0002%	max.
UV Transmission Levels (%T)		
260 nm	99%	min.
250 nm	98%	min.
245 nm	90%	min.
240 nm	75%	min.
235 nm	40%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Stabilized with about 50 ppm amylene.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1040A-G500ML	Glass	500 mL
LC1040A-G1L	Glass	1 L
LC1040A-G2.5L	Glass	2.5 L
LC1040A-G4L	Glass	4 L

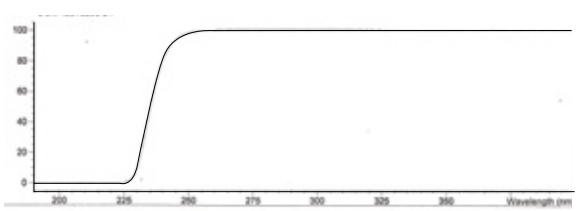
Dichloromethane, HPLC Plus — Code LC1041A

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0002%	max.
UV Transmission Levels (%T)		
260 nm	99%	min.
250 nm	98%	min.
240 nm	75%	min.
235 nm	40%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Stabilized with about 50 ppm amylene.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1041A-G500ML	Amber Glass	500 mL
LC1041A-G1L	Amber Glass	1 L
LC1041A-G2.5L	Amber Glass	2.5 L
LC1041A-G4L	Amber Glass	4 L

Dichloromethane, GC-MS — Code GM1040A

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Carbon tetrachloride (GC.)	0.002%	max.
Chloroform (GC.)	0.005%	max.
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak,		
(retention range n-undecane to n-tetracontane)		

Stabilized with about 50 ppm amylene.

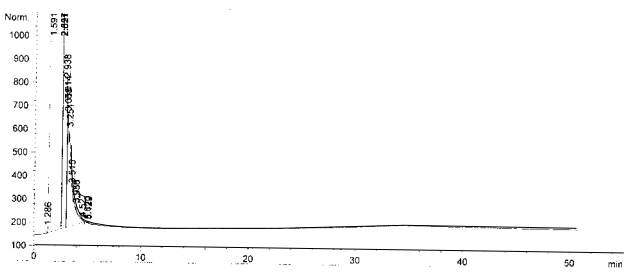
Cat No.	Package	Size
GM1040A-G500ML	Glass	500 mL
GM1040A-G1L	Glass	1 L

Cat No.	Package	Size
GM1040A-G2.5L	Glass	2.5 L
GM1040A-G4L	Glass	4 L

Dichloromethane, Pesticide — Code PC1040A

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
PC1040A-G500ML	Glass	500 mL
PC1040A-G1L	Glass	1 L

Cat No.	Package	Size
PC1040A-G2.5L	Glass	2.5 L
PC1040A-G4L	Glass	4 L

Dichloromethane, LVI-GC — Code LV1040A

Specifications

Assay (by GC.)	99.90%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Stabilized with about 50 ppm amylene.
Residual trace analysis concentration 500 : 0.5 mL.
Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1040A-G500ML	Glass	500 mL
LV1040A-G1L	Glass	1 L

Cat No.	Package	Size
LV1040A-G2.5L	Glass	2.5 L
LV1040A-G4L	Glass	4 L

Dichloromethane, UV-IR — Code IR1040A

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
260 nm	98%	min.
250 nm	90%	min.
240 nm	80%	min.
230 nm	5%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Stabilized with about 50 ppm amylene.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1040A-G500ML	Glass	500 ML
IR1040A-G1L	Glass	1 L
IR1040A-G2.5L	Glass	2.5 L
IR1040A-G4L	Glass	4 L

Dichloromethane, Anhydrous (10 ppm) — Code AH1042A

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.001%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0002%	max.

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
AH1042A-G500ML	Glass	500 mL
AH1042A-G1L	Glass	1 L
AH1042A-G2.5L	Glass	2.5 L
AH1042A-G4L	Glass	4 L

Dichloromethane, Anhydrous (50 ppm) — Code AH1043A

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0002%	max.

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
AH1043A-G500ML	Glass	500 mL
AH1043A-G1L	Glass	1 L
AH1043A-G2.5L	Glass	2.5 L
AH1043A-G4L	Glass	4 L

Dichloromethane, Peptide Synthesis — Code PS1040A

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.

Residue on Evaporation	0.0003%	max.
Free Chlorine (Cl)	0.0002%	max.
Free Amines	0.001%	max.

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
PS1040A-G500ML	Glass	500 mL
PS1040A-G1L	Glass	1 L

Cat No.	Package	Size
PS1040A-G2.5L	Glass	2.5 L
PS1040A-G4L	Glass	4 L

Dichloromethane, Electropure — Code EP1040A

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0005%	max.
Free Chlorine (Cl)	0.0002%	max.
Aluminium (Al)	0.5	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.1	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.

Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
EP1040A-G500ML	Glass	500 mL
EP1040A-G1L	Glass	1 L
EP1040A-G2.5L	Glass	2.5 L

Cat No.	Package	Size
EP1040A-G4L	Glass	4 L
EP1040A-M20L	Metal	20 L
EP1040A-M200L	Metal	200 L

Dichloromethane, Extropure — Code XP1040A

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0005%	max.
Free Chlorine (Cl)	0.0002%	max.
Aluminium (Al)	0.5	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.1	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.

Gold (Au)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
XP1040A-G500ML	Glass	500 mL
XP1040A-G1L	Glass	1 L
XP1040A-G2.5L	Glass	2.5 L

Cat No.	Package	Size
XP1040A-G4L	Glass	4 L
XP1040A-M25L	Metal	25 L
XP1040A-M200L	Metal	200 L

Dichloromethane, SDF — Code XP1323A

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.

Residue on Evaporation	0.001%	max.
Free Chlorine (Cl)	0.0002%	max.
Phthalate	Free	

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
XP1323A-G500ML	Glass	500 mL
XP1323A-G1L	Glass	1 L

Cat No.	Package	Size
XP1323A-G2.5L	Glass	2.5 L
XP1323A-G4L	Glass	4 L

Dichloromethane, Pharma — Code BP1040A

Specifications

(Meets Ph.Eur, BP, USP/NF, ACS)

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Volatile impurities	0.2%	max.
Chloroform (GC.)	50	ppm max.
Ethanol (GC.)	2.0%	max.
Methanol (GC.)	0.1%	max.

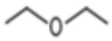
Carbon tetrachloride (GC.)	10	ppm max.
Disregard limit (GC.)	10	ppm max.
Free Chlorine (Cl)	Passes test	
Hydrogen Chloride	0.001%	max.
Solubility in water	Passes test	
Heavy metals (as Pb)	1	ppm max.
Relative density @ 20 °C	1.320-1.332	
Relative density @ 25 °C	1.318-1.322	
Refractive Index @ 20 °C	1.423-1.425	

Stabilized with about 50 ppm amylene.

Cat No.	Package	Size
BP1040A-G500ML	Glass	500 mL
BP1040A-G1L	Glass	1 L
BP1040A-G2.5L	Glass	2.5 L

Cat No.	Package	Size
BP1040A-G4L	Glass	4 L
BP1040A-M25L	Metal	25 L
BP1040A-M200L	Metal	200 L

DIETHYL ETHER



$(C_2H_5)_2O$	FW. 74.12	Density =	0.710 Kg/L
CAS-No.	60-29-7	Melting Point	-116.3 °C
UN No.	1155	Boiling Point	34.6 °C
EC No.	200-467-2	EC-Index-No	603-022-00-4
Class:	3	Packing Group:	I

Danger

GHS: H224, H302, H336, EUH019, EUH066; P210, P233, P240, P242, P243, P261, P264, P270, P271, P280, P301 + P317, P303 + P361 + P353, P304 + P340, P330, P403 + P235, P405

Diethyl Ether, AR — Code AR1044B

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Carbonyl (as HCHO)	0.001%	max.
Peroxide (as H_2O_2)	1	ppm max.

Stabilized with about 5 ppm BHT.

Cat No.	Package	Size
AR1044B-G500ML	Glass	500 mL
AR1044B-G1L	Glass	1 L
AR1044B-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1044B-G4L	Glass	4 L
AR1044B-M25L	Metal	25 L
AR1044B-M200L	Metal	200 L

Diethyl Ether, AR — Code AR1046E

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Carbonyl (as HCHO)	0.001%	max.
Peroxide (as H_2O_2)	1	ppm max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
AR1046E-G500ML	Glass	500 mL
AR1046E-G1L	Glass	1 L
AR1046E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1046E-G4L	Glass	4 L
AR1046E-M25L	Metal	25 L
AR1046E-M200L	Metal	200 L

Diethyl Ether, AR — Code AR1047E

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Carbonyl (as HCHO)	0.001%	max.
Peroxide (as H_2O_2)	1	ppm max.

Stabilized with about 2% Ethanol.

Cat No.	Package	Size
AR1047E-G500ML	Glass	500 mL
AR1047E-G1L	Glass	1 L
AR1047E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1047E-G4L	Glass	4 L
AR1047E-M25L	Metal	25 L
AR1047E-M200L	Metal	200 L

Diethyl Ether, RCI Premium — Code RP1044B

Specifications

Assay (by GC.)	99.7%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.005%	max.
Carbon tetrachloride (GC.)	0.005%	max.
Ethanol (GC.)	0.02%	max.
Methanol (GC.)	0.02%	max.
Carbonyl (as HCHO)	0.001%	max.
Carbonyl (as CO)	0.001%	max.
Chloride (Cl)	0.00003%	max.
Sulfate (SO_4)	0.00003%	max.
Matter discoloured by H_2SO_4 (APHA)	10	max.
Peroxide (as H_2O_2)	0.15	ppm max.

(Meet A.C.S. Specifications)

Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Stabilized with about 5 ppm BHT.

Cat No.	Package	Size
RP1044B-G500ML	Glass	500 mL
RP1044B-G1L	Glass	1 L
RP1044B-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1044B-G4L	Glass	4 L
RP1044B-M25L	Metal	25 L
RP1044B-M200L	Metal	200 L

Diethyl Ether, RCI Premium — Code RP1046E

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.005%	max.
Carbon tetrachloride (GC.)	0.005%	max.
Methanol (GC.)	0.02%	max.
Carbonyl (as HCHO)	0.001%	max.
Chloride (Cl)	0.00003%	max.
Sulfate (SO_4)	0.00003%	max.
Matter discoloured by H_2SO_4 (APHA)	10	max.
Peroxide (as H_2O_2)	0.15	ppm max.
Aluminium (Al)	0.2	ppm max.

(Meet A.C.S. Specifications)

Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Stabilized with about 1% Ethanol.

Cat No.	Package	Size
RP1046E-G500ML	Glass	500 mL
RP1046E-G1L	Glass	1 L
RP1046E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1046E-G4L	Glass	4 L
RP1046E-M25L	Metal	25 L
RP1046E-M200L	Metal	200 L

Diethyl Ether, RCI Premium — Code RP1047E

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.005%	max.
Carbon tetrachloride (GC.)	0.005%	max.
Methanol (GC.)	0.02%	max.
Carbonyl (as HCHO)	0.001%	max.
Chloride (Cl)	0.00003%	max.
Sulfate (SO_4)	0.00003%	max.
Matter discoloured by H_2SO_4 (APHA)	10	max.
Peroxide (as H_2O_2)	0.15	ppm max.
Aluminium (Al)	0.2	ppm max.

Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Stabilized with about 2% Ethanol.

Cat No.	Package	Size
RP1047E-G500ML	Glass	500 mL
RP1047E-G1L	Glass	1 L
RP1047E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1047E-G4L	Glass	4 L
RP1047E-M25L	Metal	25 L
RP1047E-M200L	Metal	200 L

Diethyl Ether, HPLC — Code LC1044B

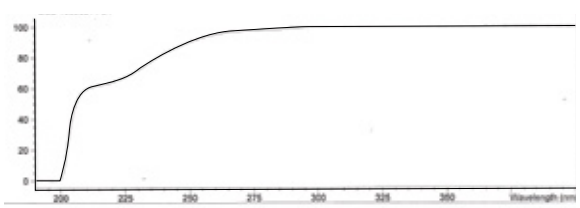
Specifications

Assay (by GC.)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Peroxide (as H_2O_2)	5	ppm max.
UV Transmission Levels (%T)		
300 nm	99%	min.
280 nm	95%	min.
260 nm	90%	min.
250 nm	80%	min.
230 nm	50%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Stabilized with about 5 ppm BHT.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1044B-G500ML	Glass	500 L
LC1044B-G1L	Glass	1 L

Cat No.	Package	Size
LC1044B-G2.5L	Glass	2.5 L
LC1044B-G4L	Glass	4 L

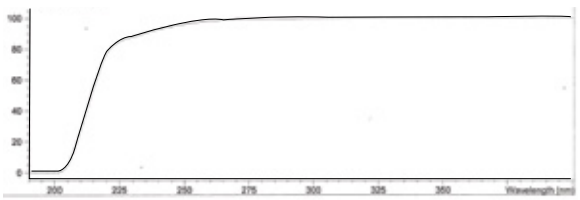
Diethyl Ether, HPLC — Code LC1046E

Specifications

Assay (by GC.)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Peroxide (as H_2O_2)	5	ppm max.
UV Transmission Levels (%T)		
280 nm	99%	min.
260 nm	95%	min.
250 nm	90%	min.
240 nm	80%	min.
230 nm	70%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Stabilized with about 1% Ethanol.

Product passed through 0.2 micron final filter.



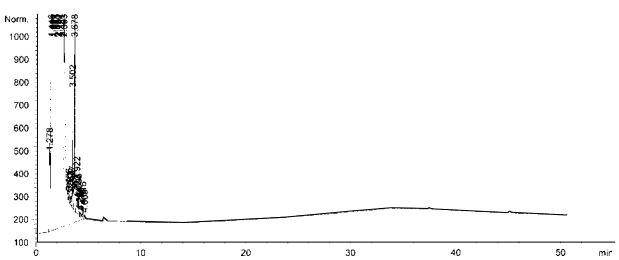
Cat No.	Package	Size
LC1046E-G500ML	Glass	500 mL
LC1046E-G1L	Glass	1 L

Cat No.	Package	Size
LC1046E-G2.5L	Glass	2.5 L
LC1046E-G4L	Glass	4 L

Diethyl Ether, Pesticide — Code PC1046E

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Peroxide (as H_2O_2)	5	ppm max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Stabilized with about 1% Ethanol.

Cat No.	Package	Size
PC1046E-G500ML	Glass	500 mL
PC1046E-G1L	Glass	1 L

Cat No.	Package	Size
PC1046E-G2.5L	Glass	2.5 L
PC1046E-G4L	Glass	4 L

Diethyl Ether, LVI-GC — Code LV1046E

Specifications

Assay (by GC.)	99.60%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Peroxide (as H_2O_2)	5	ppm max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Stabilized with about 1% Ethanol.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1046E-G500ML	Glass	500 mL
LV1046E-G1L	Glass	1 L

Cat No.	Package	Size
LV1046E-G2.5L	Glass	2.5 L
LV1046E-G4L	Glass	4 L

Diethyl Ether, UV-IR — Code IR1044B

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Peroxide (as H_2O_2)	5	ppm max.
UV Transmission Levels (%T)		
280 nm	98%	min.
270 nm	95%	min.
260 nm	90%	min.
250 nm	75%	min.
230 nm	40%	min.
Fluorescence (as quinine)		
at 254 nm	2	ppb max.
at 365 nm	2	ppb max.

Stabilized with about 5 ppm BHT.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1044B-G500ML	Glass	500 mL
IR1044B-G1L	Glass	1 L
IR1044B-G2.5L	Glass	2.5 L
IR1044B-G4L	Glass	4 L

Diethyl Ether, Anhydrous (50 ppm) — Code AH1045B

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.

Stabilized with about 5 ppm BHT.

Cat No.	Package	Size
AH1045B-G500ML	Glass	500 mL
AH1045B-G1L	Glass	1 L
AH1045B-G2.5L	Glass	2.5 L
AH1045B-G4L	Glass	4 L

Diethyl Ether, Peptide Synthesis — Code PS1044B

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Peroxide (as H_2O_2)	0.0005%	max.
Free Amines	0.001%	max.

Stabilized with about 5 ppm BHT.

Cat No.	Package	Size
PS1044B-G500ML	Glass	500 mL
PS1044B-G1L	Glass	1 L
PS1044B-G2.5L	Glass	2.5 L
PS1044B-G4L	Glass	4 L

Diethyl Ether, Electropure — Code EP1047E

Specifications

Assay (by GC.)	99.5%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.1%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	5	ppm max.
Heavy metals (as Pb)	200	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	30	ppb max.
Germanium (Ge)	30	ppb max.

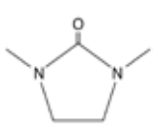
Gold (Au)	20	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	100	ppb max.
Silver (Ag)	50	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	100	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.

Stabilized with about 2% Ethanol.

Cat No.	Package	Size
EP1047E-G500ML	Glass	500 mL
EP1047E-G1L	Glass	1 L
EP1047E-G2.5L	Glass	2.5 L

Cat No.	Package	Size
EP1047E-G4L	Glass	4 L
EP1047E-M20L	Metal	20 L
EP1047E-M200L	Metal	200 L

1, 3-DIMETHYL-2-IMIDAZOLIDINONE



$C_5H_{10}N_2O$ FW. 114,14
CAS-No. 80-73-9
EC No. 201-304-8

Density = 1.056 kg/L
Melting Point 8.2 °C
Boiling Point 225.5 °C

Danger

GHS: H302, H318, H361FD; P203, P264, P270, P280, P301 + P317, P305 + P354 + P338, P318, P330, P405

1,3-Dimethyl-2-Imidazolidinone, For Headspace GC Analysis — Code HS1467

Specifications

Assay (by GC.)	99.5%	min.
Appearance	Clear liquid	
Water (by Coulometry)	0.03%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-270	nm
UV Transmission Levels (%T)		
> 350 nm	90%	min.
325 nm	80%	min.
300 nm	65%	min.
275 nm	40%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	1	ppm max.

Class 2 Solvents	10	ppm max.
Class 3 Solvents	50	ppm max.
N,N-Dimethylformamide	10	ppm max.
Dimethylsulphoxide	10	ppm max.
Methyl Isobutyl ketone	10	ppm max.

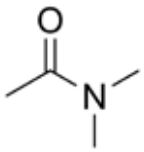
Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1467 -G500ML	Glass	500 mL

Cat No.	Package	Size
HS1467 -G1L	Glass	1 L

DIMETHYLACETAMIDE



$CH_3CON(CH_3)_2$	FW. 87.12	Density =	0.940 Kg/L
CAS-No.	127-19-5	Melting Point	-20 °C
		Boiling Point	166 °C
EC No.	204-826-4	EC-Index-No	616-011-00-4

GHS: H312 + H332, H319, H360D; P203, P261, P264 + P265, P271, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P318, P337 + P317, P362 + P364, P405

Danger

Dimethylacetamide, AR — Code AR1050

Specifications

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.07%	max.	Residue on Evaporation	0.005%	max.

Cat No.	Package	Size
AR1050-G500ML	Glass	500 mL
AR1050-G1L	Glass	1 L
AR1050-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1050-G4L	Glass	4 L
AR1050-M25L	Metal	25 L
AR1050-M200L	Metal	200 L

Dimethylacetamide, RCI Premium — Code RP1050

Specifications

Assay (by GC.)	99.7%	min.	Calcium (Ca)	0.2	ppm max.
Identity (IR)	Passes test		Chromium (Cr)	0.01	ppm max.
Appearance	Clear		Cobalt (Co)	0.01	ppm max.
Color (APHA)	10	max.	Copper (Cu)	0.01	ppm max.
Water (by Coulometry)	0.07%	max.	Iron (Fe)	0.05	ppm max.
Acidity (mEq./g.)	0.0005	max.	Lead (Pb)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Magnesium (Mg)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Manganese (Mn)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Nickel (Ni)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Tin (Sn)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1050-G500ML	Glass	500 mL
RP1050-G1L	Glass	1 L
RP1050-G2.5L	Glass	2.5 L

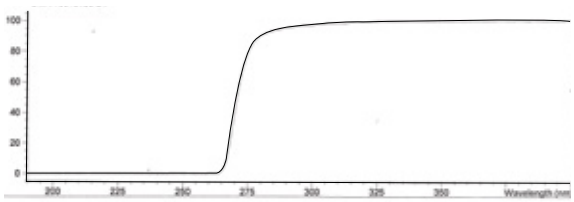
Cat No.	Package	Size
RP1050-G4L	Glass	4 L
RP1050-M25L	Metal	25 L
RP1050-M200L	Metal	200 L

Dimethylacetamide, HPLC — Code LC1050

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
350 nm	99%	min.
320 nm	98%	min.
290 nm	85%	min.
280 nm	80%	min.
275 nm	60%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1050-G500ML	Glass	500 mL
LC1050-G1L	Glass	1 L

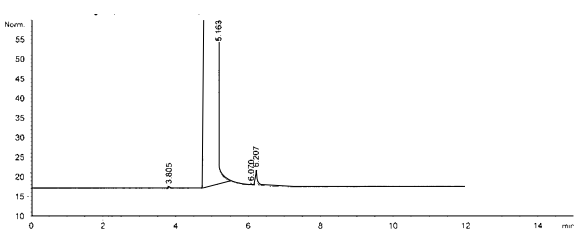
Cat No.	Package	Size
LC1050-G2.5L	Glass	2.5 L
LC1050-G4L	Glass	4 L

Dimethylacetamide, For GC Analysis — Code GC1050

Specifications

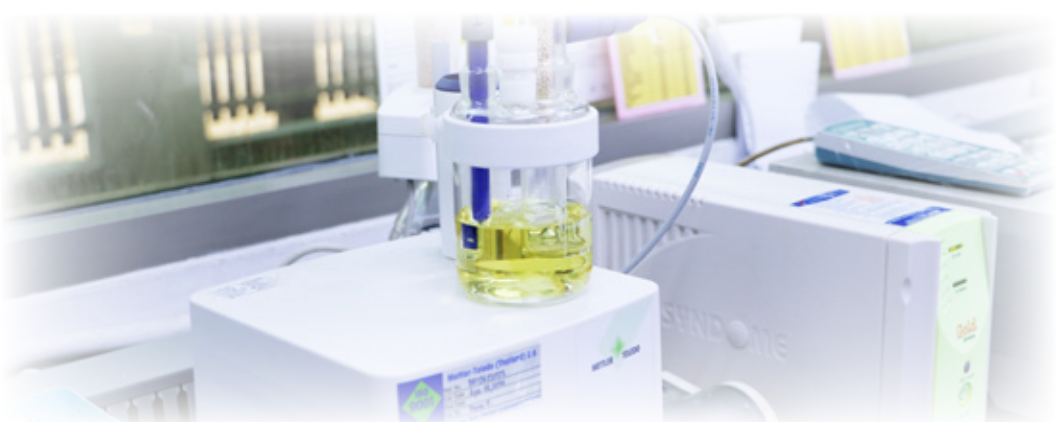
Description	Colorless, hygroscopic liquid.	
Miscibility	Miscible with water and organic solvents	
Assay (by GC.)	99.8%	min.
Weight per ml (at 20 °C)	0.938 - 0.942 g	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
350 nm	98%	min.
320 nm	90%	min.
290 nm	75%	min.
280 nm	65%	min.
275 nm	50%	min.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
GC1050-G500ML	Glass	500 mL
GC1050-G1L	Glass	1 L

Cat No.	Package	Size
GC1050-G2.5L	Glass	2.5 L
GC1050-G4L	Glass	4 L



Dimethylacetamide, For Headspace GC Analysis. Code HS1050

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-268	nm
UV Transmission Levels (%T)		
400 nm	99%	min.
350 nm	98%	min.
300 nm	85%	min.
275 nm	55%	min.
268 nm	10%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	1	ppm max.
Class 2 Solvents	10	ppm max.
Class 3 Solvents	50	ppm max.
N,N-Dimethylformamide	20	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1050-G500ML	Glass	500 mL
HS1050-G1L	Glass	1 L
HS1050-G2.5L	Glass	2.5 L

Dimethylacetamide, GC-HS Plus for Headspace GC Analysis Code HS1513

Specifications

Assay (by GC.)	99.90%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-268	nm
UV Transmission Levels (%T)		
400 nm	99%	min.
350 nm	98%	min.
300 nm	85%	min.
275 nm	55%	min.
268 nm	10%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	0.5	ppm max.
Benzene	Absence of peak	
Class 2 and Class 3 Solvents :		
Acetone	1	ppm max.
Acetonitrile	0.5	ppm max.
n-Butanol	1	ppm max.
Butyl Acetate	1	ppm max.
tert-Butyl Methyl Ether	1	ppm max.
Cyclohexane	1	ppm max.
Dichloromethane	0.5	ppm max.
1,4-Dioxane	0.5	ppm max.
Ethanol	1	ppm max.
Ethyl Acetate	1	ppm max.
Ethylbenzene	1	ppm max.
n-Heptane	1	ppm max.
n-Hexane	0.5	ppm max.
Isopropyl Acetate	1	ppm max.
Methanol	1	ppm max.
Methylcyclohexane	1	ppm max.
2-Propanol	1	ppm max.
n-Propanol	1	ppm max.
Pyridine	1	ppm max.
Tetrahydrofuran	0.5	ppm max.
Toluene	1	ppm max.
o-Xylene	1	ppm max.
m-Xylene	1	ppm max.
p-Xylene	1	ppm max.
N,N-Dimethylformamide	20	ppm max.
Other Class 2 Solvents	5	ppm max.
Other Class 3 Solvents	25	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1513-G500ML	Glass	500 mL
HS1513-G1L	Glass	1 L
HS1513-G2.5L	Glass	2.5 L
HS1513-G4L	Glass	4 L

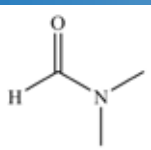
Dimethylacetamide, Peptide Synthesis — Code PS1050

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Free Amines	0.002%	max.

Cat No.	Package	Size
PS1050-G500ML	Glass	500 mL
PS1050-G1L	Glass	1 L
PS1050-G2.5L	Glass	2.5 L
PS1050-G4L	Glass	4 L

DIMETHYLFORMAMIDE



$HCON(CH_3)_2$	FW. 73.10	Density =	0.949 Kg/L
CAS-No.	68-12-2	Melting Point	-61 °C
UN No.	2265	Boiling Point	153 °C
EC No.	200-679-5	EC-Index-No	616-001-00-X
Class:	3	Packing Group:	III

Danger

GHS: H226, H312 + H332, H319, H360D; P203, P210, P233, P240, P242, P243, P261, P264 + P265, P271, P280, P302 + P352, P303 + P361 + P353, P305 + P351 + P338, P318, P337 + P317, P362 + P364, P403 + P235, P405

Dimethylformamide, AR — Code AR1051

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Appearance	Clear	
Color (APHA)	15	max.
Water (by Coulometry)	0.07%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.003	max.
Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1051-G500ML	Glass	500 mL
AR1051-G1L	Glass	1 L
AR1051-G2.5L	Glass	2.5 L
AR1051-G4L	Glass	4 L
AR1051-M25L	Metal	25 L
AR1051-M200L	Metal	200 L

Dimethylformamide, RCI Premium — Code RP1051

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.5%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.003	max.
Residue on Evaporation	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1051-G500ML	Glass	500 mL
RP1051-G1L	Glass	1 L
RP1051-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1051-G4L	Glass	4 L
RP1051-M25L	Metal	25 L
RP1051-M200L	Metal	200 L

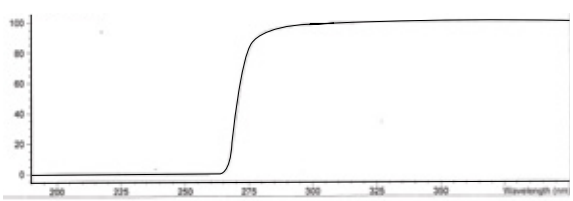
Dimethylformamide, HPLC — Code LC1051

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
320 nm	99%	min.
300 nm	98%	min.
290 nm	90%	min.
280 nm	80%	min.
275 nm	60%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1051-G500ML	Glass	500 mL
LC1051-G1L	Glass	1 L
LC1051-G2.5L	Glass	2.5 L

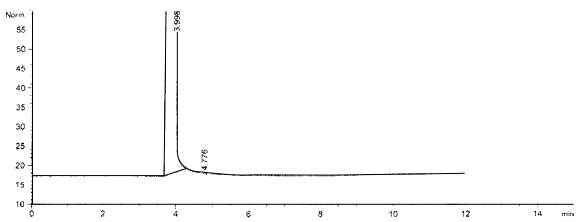
Cat No.	Package	Size
LC1051-G4L	Glass	4 L
LC1051-M25L	Metal	25 L
LC1051-M200L	Metal	200 L

Dimethylformamide, For GC Analysis — Code GC1051

Specifications

Description	A clear, colorless liquid.	
Miscibility	Miscible with water and most organic solvents	
Assay (by GC.)	99.9%	min.
Weight per ml (at 20 °C)	0.947 - 0.949 g	
Refractive index (at 20°C)	1.429 -1.431	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
330 nm	98%	min.
300 nm	90%	min.
290 nm	80%	min.
280 nm	70%	min.
270 nm	20%	min.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
GC1051-G500ML	Glass	500 mL
GC1051-G1L	Glass	1 L
GC1051-G2.5L	Glass	2.5 L
GC1051-G4L	Glass	4 L

Dimethylformamide, Pesticide — Code PC1051

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
PC1051-G500ML	Glass	500 mL
PC1051-G1L	Glass	1 L
PC1051-G2.5L	Glass	2.5 L
PC1051-G4L	Glass	4 L

Dimethylformamide, For Headspace GC Analysis. — Code HS1051

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-269	nm
UV Transmission Levels (%T)		
320 nm	95%	min.
300 nm	85%	min.
275 nm	55%	min.
270 nm	20%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	1	ppm max.
Class 2 Solvents	10	ppm max.
Class 3 Solvents	50	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1051-G500ML	Glass	500 mL
HS1051-G1L	Glass	1 L
HS1051-G2.5L	Glass	2.5 L

Dimethylformamide, GC-HS Plus for Headspace GC Analysis — Code HS1514

Specifications

Assay (by GC.)	99.90%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-269	nm
UV Transmission Levels (%T)		
320 nm	95%	min.
300 nm	85%	min.
275 nm	55%	min.
270 nm	20%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	0.5	ppm max.
Benzene	Absence of peak	
Class 2 and Class 3 Solvents :		
Acetone	1	ppm max.
Acetonitrile	0.5	ppm max.
n-Butanol	1	ppm max.
Butyl Acetate	1	ppm max.
tert-Butyl Methyl Ether	1	ppm max.
Cyclohexane	1	ppm max.
Dichloromethane	0.5	ppm max.

1,4-Dioxane	0.5	ppm max.
Ethanol	1	ppm max.
Ethyl Acetate	1	ppm max.
Ethylbenzene	1	ppm max.
n-Heptane	1	ppm max.
n-Hexane	0.5	ppm max.
Isopropyl Acetate	1	ppm max.
Methanol	1	ppm max.
Methylcyclohexane	1	ppm max.
2-Propanol	1	ppm max.
n-Propanol	1	ppm max.
Pyridine	1	ppm max.
Tetrahydrofuran	0.5	ppm max.
Toluene	1	ppm max.
o-Xylene	1	ppm max.
m-Xylene	1	ppm max.
p-Xylene	1	ppm max.
Other Class 2 Solvents	5	ppm max.
Other Class 3 Solvents	25	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1514-G500ML	Glass	500 mL
HS1514-G1L	Glass	1 L

Cat No.	Package	Size
HS1514-G2.5L	Glass	2.5 L
HS1514-G4L	Glass	4 L

Dimethylformamide, UV-IR — Code IR1051

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
330 nm	98%	min.

300 nm	90%	min.
290 nm	80%	min.
280 nm	70%	min.
270 nm	30%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1051-G500ML	Glass	500 mL
IR1051-G1L	Glass	1 L

Cat No.	Package	Size
IR1051-G2.5L	Glass	2.5 L
IR1051-G4L	Glass	4 L

Dimethylformamide, Anhydrous (100 ppm) — Code AH1052

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.

Cat No.	Package	Size
AH1052-G500ML	Glass	500 mL
AH1052-G1L	Glass	1 L
AH1052-G2.5L	Glass	2.5 L
AH1052-G4L	Glass	4 L

Dimethylformamide (with Molecular seive), Anhydrous (100 ppm) — Code AH1053

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.

Added with Molecular sieve.

Cat No.	Package	Size
AH1053-G500ML	Glass	500 mL
AH1053-G1L	Glass	1 L
AH1053-G2.5L	Glass	2.5 L
AH1053-G4L	Glass	4 L

Dimethylformamide, Peptide Synthesis — Code PS1051

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1051-G500ML	Glass	500 mL
PS1051-G1L	Glass	1 L
PS1051-G2.5L	Glass	2.5 L
PS1051-G4L	Glass	4 L

Dimethylformamide, Pharma — Code BP1051

Specifications

(Meets Reag. PH.Eur, ACS)

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.1%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.003	max.
Residue on Evaporation	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
BP1051-G500ML	Glass	500 mL
BP1051-G1L	Glass	1 L
BP1051-G2.5L	Glass	2.5 L
BP1051-G4L	Glass	4 L
BP1051-M25L	Metal	25 L
BP1051-M200L	Metal	200 L

DIMETHYLSULPHOXIDE

$(CH_3)_2SO$	FW. 78.13	Density =	1.100 Kg/L
CAS-No.	67-68-5	Melting Point	18.5 °C
EC No.	200-664-3	Boiling Point	189 °C

Dimethylsulphoxide, AR — Code AR1054

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.9%	min.	Acidity (mEq./g.)	0.0005	max.
Appearance	Clear, colorless liquid		Residue on Evaporation	0.005%	max.
Water (by Coulometry)	0.1%	max.			

Cat No.	Package	Size
AR1054-G500ML	Glass	500 mL
AR1054-G1L	Glass	1 L
AR1054-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1054-G4L	Glass	4 L
AR1054-M25L	Metal	25 L
AR1054-M200L	Metal	200 L

Dimethylsulphoxide, RCI Premium — Code RP1054

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.9%	min.	Cadmium (Cd)	0.02	ppm max.
Identity (IR)	Passes test		Calcium (Ca)	0.2	ppm max.
Appearance	Clear		Chromium (Cr)	0.01	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.1%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Heavy metals (as Pb)	0.0001%	max.	Magnesium (Mg)	0.05	ppm max.
Readily carbonizable substance	Passes test		Manganese (Mn)	0.01	ppm max.
Related substance (GC.)	Passes test		Nickel (Ni)	0.01	ppm max.
Aluminium (Al)	0.2	ppm max.	Tin (Sn)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Zinc (Zn)	0.05	ppm max.
Boron (B)	0.01	ppm max.			

Cat No.	Package	Size
RP1054-G500ML	Glass	500 mL
RP1054-G1L	Glass	1 L
RP1054-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1054-G4L	Glass	4 L
RP1054-M25L	Metal	25 L
RP1054-M200L	Metal	200 L

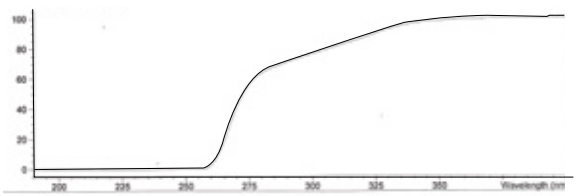
Dimethylsulphoxide, HPLC — Code LC1334

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
360 nm	98%	min.
340 nm	95%	min.
330 nm	90%	min.
310 nm	80%	min.
290 nm	65%	min.

Fluorescence (as quinine)		
at 254 nm	2	ppb max.
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1334-G500ML	Glass	500 mL
LC1334-G1L	Glass	1 L

Cat No.	Package	Size
LC1334-G2.5L	Glass	2.5 L
LC1334-G4L	Glass	4 L

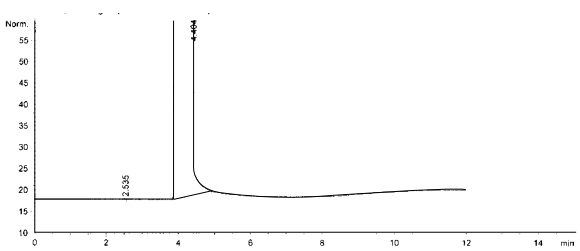
Dimethylsulphoxide, For GC Analysis — Code GC1334

Specifications

Description	Colorless, hygroscopic liquid.	
Miscibility	Miscible with water and organic solvents	
Assay (by GC.)	99.9%	min.
Weight per ml (at 20 °C)	1.099 - 1.101 g	
Refractive index (at 20 °C)	1.478 -1.479	
Freezing / Congealing point	18.30 °C	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
350 nm	98%	min.

340 nm	95%	min.
330 nm	90%	min.
320 nm	80%	min.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
GC1334-G500ML	Glass	500 mL
GC1334-G1L	Glass	1 L

Cat No.	Package	Size
GC1334-G2.5L	Glass	2.5 L
GC1334-G4L	Glass	4 L

Dimethylsulphoxide, For Headspace GC Analysis — Code HS1334

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-265	nm
UV Transmission Levels (%T)		
400 nm	98%	min.
350 nm	95%	min.
300 nm	80%	min.
275 nm	55%	min.
268 nm	30%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	1	ppm max.
Class 2 Solvents	10	ppm max.
Class 3 Solvents	50	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1334-G500ML	Glass	500 mL
HS1334-G1L	Glass	1 L
HS1334-G2.5L	Glass	2.5 L

Dimethylsulphoxide, GC-HS Plus for Headspace GC Analysis — Code HS1515

Specifications

Assay (by GC.)	99.90%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-265	nm
UV Transmission Levels (%T)		
400 nm	98%	min.
350 nm	95%	min.
300 nm	80%	min.
275 nm	55%	min.
268 nm	30%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	0.5	ppm max.
Benzene	Absence of peak	
Class 2 and Class 3 Solvents :		
Acetone	1	ppm max.
Acetonitrile	0.5	ppm max.
n-Butanol	1	ppm max.
Butyl Acetate	1	ppm max.
tert-Butyl Methyl Ether	1	ppm max.
Cyclohexane	1	ppm max.
Dichloromethane	0.5	ppm max.
1,4-Dioxane	0.5	ppm max.
Ethanol	1	ppm max.
Ethyl Acetate	1	ppm max.
Ethylbenzene	1	ppm max.
n-Heptane	1	ppm max.
n-Hexane	0.5	ppm max.
Isopropyl Acetate	1	ppm max.
Methanol	1	ppm max.
Methylcyclohexane	1	ppm max.
2-Propanol	1	ppm max.
n-Propanol	1	ppm max.
Pyridine	1	ppm max.
Tetrahydrofuran	0.5	ppm max.
Toluene	1	ppm max.
o-Xylene	1	ppm max.
m-Xylene	1	ppm max.
p-Xylene	1	ppm max.
Other Class 2 Solvents	5	ppm max.
Other Class 3 Solvents	25	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1515-G500ML	Glass	500 mL
HS1515-G1L	Glass	1 L
HS1515-G2.5L	Glass	2.5 L
HS1515-G4L	Glass	4 L

Dimethylsulphoxide, UV-IR — Code IR1334

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0004%	max.
UV Transmission Levels (%T)		
350 nm	98%	min.
340 nm	95%	min.
330 nm	90%	min.
320 nm	80%	min.
Fluorescence (as quinine)		
at 365 nm	5	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1334-G500ML	Glass	500 mL
IR1334-G1L	Glass	1 L
IR1334-G2.5L	Glass	2.5 L
IR1334-G4L	Glass	4 L

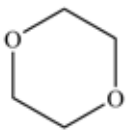
Dimethylsulphoxide, Anhydrous (200 ppm) — Code AH1055

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.

Cat No.	Package	Size
AH1055-G500ML	Glass	500 mL
AH1055-G1L	Glass	1 L
AH1055-G2.5L	Glass	2.5 L
AH1055-G4L	Glass	4 L

1, 4-DIOXAN



$C_4H_8O_2$	FW. 88.11	Density =	1.030 Kg/L
CAS-No.	123-91-1	Melting Point	12 °C
UN No.	1165	Boiling Point	101.5 °C
EC No.	204-661-8	EC-Index-No	603-024-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319, H335, H351, EUH019, EUH066; P203, P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P318, P337 + P317, P403 + P235, P405

1, 4-Dioxan, AR — Code AR1057

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Residue on Evaporation	0.001%	max.
Color (APHA)	20	max.	Carbonyl (as HCHO)	0.01%	max.
Water (by Coulometry)	0.05%	max.	Peroxide (as H_2O_2)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.	Freezing point (°C)	Not below 11.0 °C	

Cat No.	Package	Size
AR1057-G500ML	Glass	500 mL
AR1057-G1L	Glass	1 L

Cat No.	Package	Size
AR1057-G2.5L	Glass	2.5 L
AR1057-G4L	Glass	4 L

1, 4-Dioxan, AR — Code AR1059B

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Carbonyl (as HCHO)	0.01%	max.
Color (APHA)	20	max.	Peroxide (as H_2O_2)	0.005%	max.
Water (by Coulometry)	0.05%	max.	Freezing point (°C)	Not below 11.0 °C	
Acidity (mEq./g.)	0.0005	max.			
Residue on Evaporation	0.005%	max.			

Stabilized with about 25 ppm BHT.

Cat No.	Package	Size
AR1059B-G500ML	Glass	500 mL
AR1059B-G1L	Glass	1 L
AR1059B-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1059B-G4L	Glass	4 L
AR1059B-M25L	Metal	25 L
AR1059B-M200L	Metal	200 L

1, 4-Dioxan, RCI Premium — Code RP1057

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Cadmium (Cd)	0.02	ppm max.
Identity (IR)	Passes test		Calcium (Ca)	0.2	ppm max.
Color (APHA)	10	max.	Chromium (Cr)	0.01	ppm max.
Water (by Coulometry)	0.05%	max.	Cobalt (Co)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Copper (Cu)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Iron (Fe)	0.05	ppm max.
Carbonyl (as HCHO)	0.01%	max.	Lead (Pb)	0.05	ppm max.
Peroxide (as H_2O_2)	0.005%	max.	Magnesium (Mg)	0.05	ppm max.
Freezing point (°C)	Not below 11.0 °C		Manganese (Mn)	0.01	ppm max.
Aluminium (Al)	0.2	ppm max.	Nickel (Ni)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Tin (Sn)	0.05	ppm max.
Boron (B)	0.01	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1057-G500ML	Glass	500 mL
RP1057-G1L	Glass	1 L
RP1057-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1057-G4L	Glass	4 L
RP1057-M25L	Metal	25 L
RP1057-M200L	Metal	200 L

1, 4-Dioxan, RCI Premium — Code RP1059B

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Acetaldehyde	0.05%	max.
Formaldehyde	0.005%	max.
Carbonyl (as HCHO)	0.01%	max.
Peroxide (as H_2O_2)	0.005%	max.
Freezing point (°C)	Not below 11.0 °C	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.

(Meet A.C.S. Specifications)

Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1059B-G500ML	Glass	500 mL
RP1059B-G1L	Glass	1 L
RP1059B-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1059B-G4L	Glass	4 L
RP1059B-M25L	Metal	25 L
RP1059B-M200L	Metal	200 L

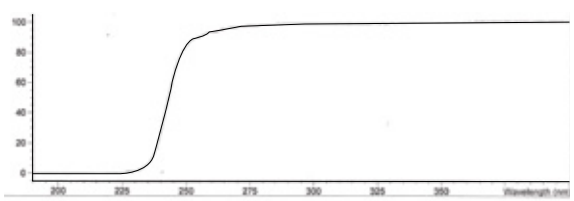
1, 4-Dioxan, HPLC — Code LC1057

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
290 nm	98%	min.
280 nm	95%	min.
270 nm	90%	min.
260 nm	85%	min.
250 nm	80%	min.

Fluorescence (as quinine)		
at 254 nm	5	ppb max.
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1057-G500ML	Glass	500 mL
LC1057-G1L	Glass	1 L

Cat No.	Package	Size
LC1057-G2.5L	Glass	2.5 L
LC1057-G4L	Glass	4 L

1, 4-Dioxan, UV-IR — Code IR1057

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
310 nm	98%	min.
300 nm	95%	min.
290 nm	90%	min.
280 nm	80%	min.
270 nm	70%	min.
Fluorescence (as quinine)		
at 254 nm	5	ppb max.
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1057-G500ML	Glass	500 mL
IR1057-G1L	Glass	1 L
IR1057-G2.5L	Glass	2.5 L
IR1057-G4L	Glass	4 L

1, 4-Dioxan, Anhydrous (50 ppm) — Code AH1058

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Peroxide (as H_2O_2)	0.005%	max.

Cat No.	Package	Size
AH1058-G500ML	Glass	500 mL
AH1058-G1L	Glass	1 L
AH1058-G2.5L	Glass	2.5 L
AH1058-G4L	Glass	4 L

1, 4-Dioxan, Anhydrous (50 ppm) — Code AH1060B

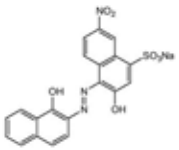
Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Peroxide (as H_2O_2)	0.005%	max.

Stabilized with about 25 ppm BHT.

Cat No.	Package	Size
AH1060B-G500ML	Glass	500 mL
AH1060B-G1L	Glass	1 L
AH1060B-G2.5L	Glass	2.5 L
AH1060B-G4L	Glass	4 L

ERIOCHROME BLACK T



$C_{20}H_{12}N_3NaO_7S$	FW. 461.38		
CAS-No.	1787-61-7	EC No.	217-250-3
UN No.	3077	Melting point	252 °C
Class:	9	Packing Group:	III
GHS:	H319, H411; P264, P273, P280, P305 + P351 + P338, P337 + P317, P391		

Warning

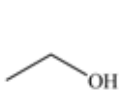
Eriochrome Black T Indicator — Code AR1252

Specifications

Appearance	Brownish black powder
Suitable as metal indicator	Passes test
Absorption maximum (pH 10)	612 - 616 nm

Cat No.	Package	Size
AR1252-G20G	Glass	25 g
AR1252-G50G	Glass	50 g
AR1252-G100G	Glass	100 g

ETHANOL 50%



C_2H_5OH	FW. 46.07	Density =	0.930 kg/L
CAS-No.	64-17-5		
UN No.	1170		
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II
GHS:	H226, H319; P210, P233, P240, P242, P243, P264, P280, P303+P361+P353, P305+P351+P338, P337+P317, P403+P235		

Warning

Ethanol 50%, AR — Code AR1296

Specifications

Assay (by GC.- correct for water)	50%	min.
Color (APHA)	10	max.
Water (by Coulometry)	50%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.

Solubility in water	Passes test
Substances darkened by sulfuric acid	Passes test
Substances reducing permanganate	Passes test

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
AR1296-G500ML	Glass	500 mL
AR1296-G1L	Glass	1 L
AR1296-G2.5L	Glass	2.5 L
AR1296-G4L	Glass	4 L
AR1296-P500ML	Plastic	500 mL
AR1296-P1L	Plastic	1 L
AR1296-P2.5L	Plastic	2.5 L
AR1296-P4L	Plastic	4 L

Ethanol 50%, AR — Code AR1382

Specifications

Assay (by GC.- correct for water)	50%	min.
Color (APHA)	10	max.
Water (by Coulometry)	50%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.

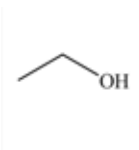
Solubility in water	Passes test
Substances darkened by sulfuric acid	Passes test
Substances reducing permanganate	Passes test

Denatured with Denatonium Benzoate 8-12 ppm and Tert Butyl Alcohol less than 0.15%.

Cat No.	Package	Size
AR1382-G500ML	Glass	500 mL
AR1382-G1L	Glass	1 L
AR1382-G2.5L	Glass	2.5 L
AR1382-G4L	Glass	4 L

Cat No.	Package	Size
AR1382-P500ML	Plastic	500 mL
AR1382-P1L	Plastic	1 L
AR1382-P2.5L	Plastic	2.5 L
AR1382-P4L	Plastic	4 L

ETHANOL 70%



C_2H_5OH FW. 46.07 Density = 0.862 - 0.867 Kg/L
CAS-No. 64-17-5 UN No. 1170
Class: 3 Packing Group: II

Danger

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303 + P361 + P353, P305 + P351 + P338, P337 + P317, P403 + P235

Ethanol 70%, AR — Code AR1312

Specifications

Assay (by GC.- correct for water)	70%	min.
Color (APHA)	10	max.
Water (by Coulometry)	30%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.001%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.003%	max.
Solubility in water	Passes test	
Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

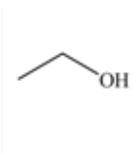
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
AR1312-G500ML	Glass	500 mL
AR1312-G1L	Glass	1 L
AR1312-G2.5L	Glass	2.5 L
AR1312-G4L	Glass	4 L
AR1312-P500ML	Plastic	500 mL

Cat No.	Package	Size
AR1312-P1L	Plastic	1 L
AR1312-P2.5L	Plastic	2.5 L
AR1312-P4L	Plastic	4 L
AR1312-M20L	Metal	20 L
AR1312-M200L	Metal	200 L

ETHANOL 95% (5% Methanol)



C_2H_5OH	FW. 46.07	Density =	0.803 - 0.810 kg/L
CAS-No.	64-17-5	UN No.	1993
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

GHS: H225, H301 + H311 + H331, H319, H370; P210, P233, P240, P242, P243, P260, P264, P270, P271, P280, P301 + P316 , P302 + P352, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P308 + P316, P330, P337 + P317, P361 + P364, P403 + P235, P405

Danger

Ethanol 95%, AR — Code AR1409

Specifications

Assay	94.0 - 95.0% (v/v)	
Appearance	Clear, colorless liquid	
Acidity (as Acetic acid)	22	ppm max.
Water (by Coulometry)	6%	max.

Non-volatile matter	0.005%	max.
Aldehydes	5	ppm max.

Denatured with Methanol 5 - 6%(v/v).

Cat No.	Package	Size
AR1409-G500ML	Glass	500 mL
AR1409-G1L	Glass	1 L
AR1409-G2.5L	Glass	2.5 L
AR1409-G4L	Glass	4 L

Cat No.	Package	Size
AR1409-P2.5L	Plastic	2.5 L
AR1409-P4L	Plastic	4 L
AR1409-P20L	Plastic	20 L
AR1409-P200L	Plastic	200 L

ETHANOL 95% (5% water)

C_2H_5OH	FW. 46.07	Density =	0.800 - 0.805 Kg/L
CAS-No.	64-17-5	UN No.	1170
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303 + P361 + P353, P305 + P351 + P338, P337 + P317, P403 + P235

Ethanol 95%, AR — Code AR1511

Specifications

Assay (by GC.- correct for water)	95%	min.
Color (APHA)	10	max.
Water (by Coulometry)	5%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.001%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.003%	max.
Solubility in water	Passes test	
Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

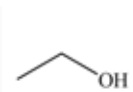
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
AR1511-G500ML	Glass	500 mL
AR1511-G1L	Glass	1 L
AR1511-G2.5L	Glass	2.5 L
AR1511-G4L	Glass	4 L
AR1511-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1511-P4L	Plastic	4 L
AR1511-P20L	Plastic	20 L
AR1511-P200L	Plastic	200 L
AR1511-M25L	Metal	25 L
AR1511-M200L	Metal	200 L

ETHANOL 96%



C_2H_5OH	FW. 46.07	Density =	0.805 - 0.810 kg/L
CAS-No.	64-17-5	UN No.	1170
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

GHS: H225, H319; P210, P233, P240, P242, P243, P264 + P265, P280, P303 + P361 + P353, P305 + P351 + P338, P337 + P317, P403 + P235

Ethanol 96%, AR — Code AR1361

Specifications

Assay	96% (v/v)	min.
Color (APHA)	10	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.001%	max.
Benzene (GC.)	0.0002%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.003%	max.
Fusel oil	Passes test	
Solubility in water	Passes test	
Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
AR1361-G500ML	Glass	500 mL
AR1361-G1L	Glass	1 L
AR1361-G2.5L	Glass	2.5 L
AR1361-G4L	Glass	4 L

Cat No.	Package	Size
AR1361-P500ML	Plastic	500 mL
AR1361-P1L	Plastic	1 L
AR1361-P2.5L	Plastic	2.5 L
AR1361-P4L	Plastic	4 L

Ethanol 96%, Pharma — Code BP1361

Specifications

Assay	95.1 - 96.0% (v/v)	
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color of Solution	Passes test	
Clarity of Solution	Passes test	
Color (APHA)	10	max.
Acidity or Alkalinity (as Acetic Acid)	30	ppm max.
Residue on Evaporation	0.0025%	max.
Acetone, Isopropyl alcohol	Passes test	
Methanol (GC.)	200	ppm max.
Acetaldehyde and Acetal (GC.)	10	ppm max.

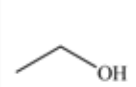
Benzene (GC.)	2	ppm max.
Total of other impurities (GC.)	300	ppm max.
Disregard limit (GC.)	9	ppm max.
Solubility in water	Passes test	
UV Absorbance		
270 - 340 nm	0.10	AU max.
250 - 260 nm	0.30	AU max.
240 nm	0.40	AU max.
Relative density @ 20 °C	0.812 - 0.816	

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
BP1361-G500ML	Glass	500 mL
BP1361-G1L	Glass	1 L
BP1361-G2.5L	Glass	2.5 L
BP1361-G4L	Glass	4 L
BP1361-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
BP1361-P4L	Plastic	4 L
BP1361-P20L	Plastic	20 L
BP1361-P200L	Plastic	200 L
BP1361-M200L	Metal	200 L

ETHANOL 96%



C_2H_5OH	FW. 46.07	Density =	0.805 - 0.810 kg/L
CAS-No.	64-17-5	UN No.	1170
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303 + P361 + P353, P305 + P351 + P338, P337 + P317, P403 + P235

Ethanol 96%, AR — Code AR1383

Specifications

Assay	96% (v/v)	min.
Color (APHA)	10	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.001%	max.
Benzene (GC.)	0.0002%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.003%	max.
Fusel oil	Passes test	
Solubility in water	Passes test	
Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

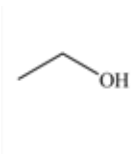
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Denatured with Denatonium Benzoate 8-12 ppm and Tert Butyl Alcohol less than 0.15%.

Cat No.	Package	Size
AR1383-G500ML	Glass	500 mL
AR1383-G1L	Glass	1 L
AR1383-G2.5L	Glass	2.5 L
AR1383-G4L	Glass	4 L

Cat No.	Package	Size
AR1383-P2.5L	Plastic	2.5 L
AR1383-P4L	Plastic	4 L
AR1383-P20L	Plastic	20 L
AR1383-P200L	Plastic	200 L

ETHANOL (1 DENATURED)



C_2H_5OH	FW. 46.07	Density =	0.790 kg/L
CAS-No.	64-17-5	Melting Point	-114.5 °C
UN No.	1170	Boiling Point	78.3 °C
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303+P361+P353, P305+P351+P338, P337+P317, P403+P235

Ethanol, AR — Code AR1069

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.001%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.003%	max.
Fusel oil	Passes test	
Solubility in water	Passes test	
Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

(Meet A.C.S. Specifications)

Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Denatured with Denatonium Benzoate 8-12 ppm

Cat No.	Package	Size
AR1069-G500ML	Glass	500 mL
AR1069-G1L	Glass	1 L
AR1069-G2.5L	Glass	2.5 L
AR1069-G4L	Glass	4 L

Cat No.	Package	Size
AR1069-P2.5L	Plastic	2.5 L
AR1069-P4L	Plastic	4 L
AR1069-P20L	Plastic	20 L
AR1069-P200L	Plastic	200 L

Ethanol, RCI Premium — Code RP1069

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Appearance	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.1%	max.
Acid or alkalinity	30	ppm max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Aldehydes (as Acetaldehyde)	0.001%	max.
Carbonyl compounds (as CO)	0.003%	max.
Acetone (GC.)	0.001%	max.
Isoamyl alcohol (GC.)	0.02%	max.
Higher alcohols (GC.)	0.01%	max.
Isoamyl alcohl (GC.)	0.05%	max.
Methanol (GC.)	0.01%	max.
Propan-2-ol (GC.)	0.003%	max.
Acetaldehyde and Acetal	10	ppm max.
Benzene	2	ppm max.
Total of other impurities	300	ppm max.
Fusel oil	Passes test	
Readily carbonizable substances	Passes test	
Solubility in water	Passes test	

Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	0.0002%	max.
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Potassium (K)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
RP1069-G500ML	Glass	500 mL
RP1069-G1L	Glass	1 L
RP1069-G2.5L	Glass	2.5 L
RP1069-G4L	Glass	4 L

Cat No.	Package	Size
RP1069-P2.5L	Plastic	2.5 L
RP1069-P4L	Plastic	4 L
RP1069-P20L	Plastic	20 L
RP1069-P200L	Plastic	200 L

Ethanol, Pharma — Code BP1069

Specifications (Meets Ph.Eur, BP, USP/NF, JP, ACS)

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color of Solution	Passes test	
Clarity of Solution	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity or Alkalinity (as Acetic Acid)	30	ppm max.
Acidity (mEq./g)	0.0002	max.
Alkalinity (mEq./g)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone, Isopropyl alcohol	Passes test	
Methanol (GC.)	200	ppm max.
Acetaldehyde and Acetal (GC.)	10	ppm max.

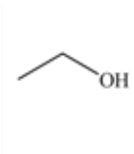
Benzene (GC.)	2	ppm max.
Total of other impurities (GC.)	300	ppm max.
Disregard limit (GC.)	9	ppm max.
Solubility in water	Passes test	
Substances darkened by Sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
UV Absorbance		
270 - 340 nm	0.10	AU max.
250 - 260 nm	0.30	AU max.
240 nm	0.40	AU max.
Relative density @ 20 oC	0.790 - 0.793	

Denatured with 8-12 ppm Denatonium Benzoate.

Cat No.	Package	Size
BP1069-G500ML	Glass	500 mL
BP1069-G1L	Glass	1 L
BP1069-G2.5L	Glass	2.5 L
BP1069-G4L	Glass	4 L

Cat No.	Package	Size
BP1069-P2.5L	Plastic	2.5 L
BP1069-P4L	Plastic	4 L
BP1069-P20L	Plastic	20 L
BP1069-P200L	Plastic	200 L

ETHANOL (2 DENATURED)



C_2H_5OH	FW. 46.07	Density =	0.790 kg/L
CAS-No.	64-17-5	Melting Point	-114.5 °C
UN No.	1170	Boiling Point	78.3 °C
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303+P361+P353, P305+P351+P338, P337+P317, P403+P235

Ethanol, AR — Code AR1380

Specifications

Assay (by GC.)	99.7%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.001%	max.
Methanol (GC.)	0.05%	max.
Propan-2-ol (GC.)	0.003%	max.
Fusel oil	Passes test	
Solubility in water	Passes test	
Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

(Meet A.C.S. Specifications)

Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Denatured with Denatonium Benzoate 8-12 ppm and Tert Butyl Alcohol less than 0.15%.

Cat No.	Package	Size
AR1380-G500ML	Glass	500 mL
AR1380-G1L	Glass	1 L
AR1380-G2.5L	Glass	2.5 L
AR1380-G4L	Glass	4 L

Cat No.	Package	Size
AR1380-P2.5L	Plastic	2.5 L
AR1380-P4L	Plastic	4 L
AR1380-P20L	Plastic	20 L
AR1380-P200L	Plastic	200 L

Ethanol, RCI Premium — Code RP1380

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.7%	min.
Identity (IR)	Passes test	
Appearance	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.1%	max.
Acid or alkalinity	30	ppm max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Aldehydes (as Acetaldehyde)	0.001%	max.
Carbonyl compounds (as CO)	0.003%	max.
Acetone (GC.)	0.001%	max.
Ethylmethylketone (GC.)	0.02%	max.
Higher alcohols (GC.)	0.01%	max.
Isoamyl alcohol (GC.)	0.05%	max.
Methanol (GC.)	0.01%	max.
Propan-2-ol (GC.)	0.003%	max.
Acetaldehyde and Acetal	10	ppm max.
Benzene	2	ppm max.
Total of other impurities	300	ppm max.
Fusel oil	Passes test	
Readily carbonizable substances	Passes test	
Solubility in water	Passes test	

Substances darkened by sulfuric acid	Passes test	
Substances reducing permanganate	0.0002%	max.
Aluminium (Al)	0.1	ppm max.
Barium (Ba)	0.02	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Potassium (K)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Denatured with Denatonium Benzoate 8-12 ppm and Tert Butyl Alcohol less than 0.15%.

Cat No.	Package	Size
RP1380-G500ML	Glass	500 mL
RP1380-G1L	Glass	1 L
RP1380-G2.5L	Glass	2.5 L
RP1380-G4L	Glass	4 L

Cat No.	Package	Size
RP1380-P2.5L	Plastic	2.5 L
RP1380-P4L	Plastic	4 L
RP1380-P20L	Plastic	20 L
RP1380-P200L	Plastic	200 L

Ethanol, Pharma — Code BP1380

Specifications (Conforms to Ph.Eur, BP, USP/NF, JP, ACS)

Assay (by GC.)	99.7%	min.
Appearance	Clear, Colorless liquid	
Identity	Passes test	
Color of Solution	Passes test	
Clarity of Solution	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity or Alkalinity (as Acetic Acid)	30	ppm max.
Acidity (mEq./g)	0.0002	max.
Alkalinity (mEq./g)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone, Isopropyl alcohol	Passes test	
Methanol (GC.)	200	ppm max.
Acetaldehyde and Acetal (GC.)	10	ppm max.

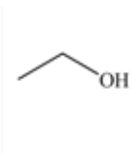
Benzene (GC.)	2	ppm max.
Total of other impurities	300	ppm max.
Disregard limit	9	ppm max.
Solubility in water	Passes test	
Substances darkened by Sulfuric acid	Passes test	
Substances reducing permanganate	Passes test	
UV Absorbance		
270 - 340 nm	0.10	AU max.
250 - 260 nm	0.30	AU max.
240 nm	0.40	AU max.
Relative density @ 20 C	0.790 - 0.793	

Denatured with Denatonium Benzoate 8-12 ppm and Tert Butyl Alcohol less than 0.15%.

Cat No.	Package	Size
BP1380-G500ML	Glass	500 mL
BP1380-G1L	Glass	1 L
BP1380-G2.5L	Glass	2.5 L
BP1380-G4L	Glass	4 L

Cat No.	Package	Size
BP1380-P2.5L	Plastic	2.5 L
BP1380-P4L	Plastic	4 L
BP1380-P20L	Plastic	20 L
BP1380-P200L	Plastic	200 L

ETHANOL



C_2H_5OH	FW. 46.07	Density =	0.790 kg/L
CAS-No.	64-17-5	Melting Point	-114.5 °C
UN No.	1170	Boiling Point	78.3 °C
EC No.	200-578-6	EC-Index-No	603-002-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303+P361+P353, P305+P351+P338, P337+P317, P403+P235

Ethanol, HPLC — Code LC1380

Specifications (Conforms to ACS/BP/EP/USP/NF)

Assay (by GC.)	99.7%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Color of solution	Passes test	
Clarity of solution	Passes test	
Water (by Coulometry)	0.1%	max.
Acid or alkalinity	30	ppm max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Aldehydes (as Acetaldehyde)	0.001%	max.
Carbonyl compounds (as CO)	0.003%	max.
Acetone (GC.)	0.001%	max.
Ethylmethylketone (GC.)	0.02%	max.
Higher alcohols (GC.)	0.01%	max.
Isoamyl alcohol (GC.)	0.05%	max.
Methanol (GC.)	0.01%	max.
Propan-2-ol (GC.)	0.003%	max.
Acetaldehyde and Acetal	10	ppm max.
Benzene	2	ppm max.
Total of other impurities	300	ppm max.
Disregard limit	9	ppm max.
Fusel oil	Passes test	
Readily carbonizable substances	Passes test	
Solubility in water	Passes test	
Substances reducing permanganate	0.0002%	max.
Chloride (Cl)	0.3	ppm max.
Nitrate (NO_3)	0.3	ppm max.
Phosphate (PO_4)	0.3	ppm max.
Sulfate (SO_4)	0.3	ppm max.
Aluminium (Al)	0.5	ppm max.
Antimony (Sb)	0.02	ppm max.

Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.1	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Platinum (Pt)	0.02	ppm max.
Lead (Pb)	0.1	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Silver (Ag)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.02	ppm max.
UV Absorbance		
270 - 340 nm	0.10	AU max.
250 - 260 nm	0.30	AU max.
240 nm	0.40	AU max.

Denatured with Tert Butyl Alcohol less than 0.15% (v/v).

Cat No.	Package	Size
LC1380-G500ML	Glass	500 mL
LC1380-G1L	Glass	1 L

Cat No.	Package	Size
LC1380-G2.5ML	Glass	2.5 mL
LC1380-G4L	Glass	4 L

Ethanol, Super Gradient for HPLC — Code SG1380

Specifications

Assay (by GC.)	99.70%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.1%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
260 nm	98%	min.
240 nm	85%	min.
225 nm	60%	min.
Gradient Specification		
at 235 nm	5.0	mAU max.
at 254 nm	2.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	0.5	ppb max.

Denatured with Tert Butyl Alcohol less than 0.15% (v/v).

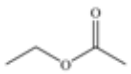
Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
SG1380-G500ML	Glass	500 mL
SG1380-G1L	Glass	1 L

Cat No.	Package	Size
SG1380-G2.5ML	Glass	2.5 mL
SG1380-G4L	Glass	4 L

ETHYL ACETATE



$CH_3COOC_2H_5$	FW. 88.11	Density =	0.900 kg/L
CAS-No.	141-78-6	Melting Point	-83 °C
UN No.	1173	Boiling Point	77 °C
EC No.	205-500-4	EC-Index-No	607-022-00-5
Class:	3	Packing Group:	II

Danger

GHS: H225, H319, H336, EUH066; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Ethyl Acetate, AR — Code AR1070

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Acidity (mEq./g.)	0.0005	max.
Color (APHA)	10	max.	Residue on Evaporation	0.001%	max.
Water (by Coulometry)	0.05%	max.	Substances darkened by sulfuric acid	Passes test	

Cat No.	Package	Size	Cat No.	Package	Size
AR1070-G500ML	Glass	500 ML	AR1070-P2.5L	Plastic	2.5 L
AR1070-G1L	Glass	1 L	AR1070-P4L	Plastic	4 L
AR1070-G2.5L	Glass	2.5 L	AR1070-P20L	Plastic	20 L
AR1070-G4L	Glass	4 L	AR1070-P200L	Plastic	200 L

Ethyl Acetate, RCI Premium — Code RP1070

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Boron (B)	0.01	ppm max.
Identity (IR)	Passes test		Cadmium (Cd)	0.02	ppm max.
Appearance	Clear		Calcium (Ca)	0.2	ppm max.
Color (APHA)	10	max.	Chromium (Cr)	0.01	ppm max.
Water (by Coulometry)	0.05%	max.	Cobalt (Co)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Copper (Cu)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Iron (Fe)	0.05	ppm max.
Acetone (GC.)	0.001%	max.	Potassium (K)	0.1	ppm max.
Ethanol (GC.)	0.1%	max.	Lead (Pb)	0.05	ppm max.
Methanol (GC.)	0.1%	max.	Magnesium (Mg)	0.05	ppm max.
Methyl acetate (GC.)	0.1%	max.	Manganese (Mn)	0.01	ppm max.
Propan-2-ol (GC.)	0.003%	max.	Nickel (Ni)	0.01	ppm max.
Readily carbonizable substance	Passes test		Sodium (Na)	0.5	ppm max.
Substances darkened by sulfuric acid	Passes test		Strontium (Sr)	0.02	ppm max.
Aluminium (Al)	0.1	ppm max.	Tin (Sn)	0.05	ppm max.
Barium (Ba)	0.02	ppm max.	Zinc (Zn)	0.05	ppm max.

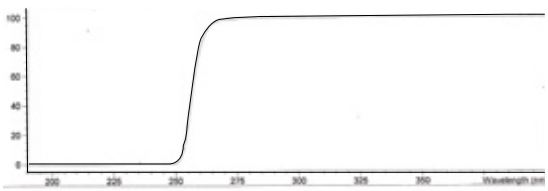
Cat No.	Package	Size	Cat No.	Package	Size
RP1070-G500ML	Glass	500 mL	RP1070-P2.5L	Plastic	2.5 L
RP1070-G1L	Glass	1 L	RP1070-P4L	Plastic	4 L
RP1070-G2.5L	Glass	2.5 L	RP1070-P20L	Plastic	20 L
RP1070-G4L	Glass	4 L	RP1070-P200L	Plastic	200 L

Ethyl Acetate, HPLC — Code LC1070

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
300 nm	99%	min.
270 nm	98%	min.
265 nm	80%	min.
260 nm	70%	min.
Fluorescence (as quinine)		
at 254 nm	2	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1070-G500ML	Glass	500 mL
LC1070-G1L	Glass	1 L

Cat No.	Package	Size
LC1070-G2.5L	Glass	2.5 L
LC1070-G4L	Glass	4 L

Ethyl Acetate, GC-MS — Code GM1070

Specifications

Assay (by GC.)	99.90%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0002%	max.
Ethanol (GC.)	0.02%	max.
Methanol (GC.)	0.01%	max.
Substances darkened by sulfuric acid	Passes test	
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak,		
(retention range n-undecane to n-tetracontane)		

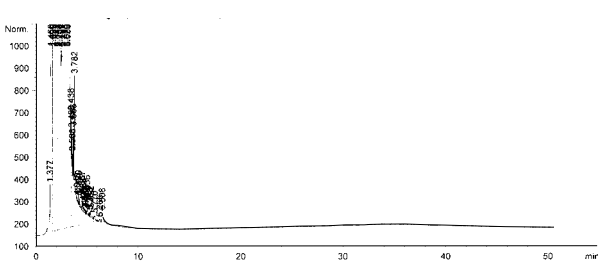
Cat No.	Package	Size
GM1070-G500ML	Glass	500 mL
GM1070-G1L	Glass	1 L

Cat No.	Package	Size
GM1070-G2.5L	Glass	2.5 L
GM1070-G4L	Glass	4 L

Ethyl Acetate, Pesticide — Code PC1070

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1070-G500ML	Glass	500 mL
PC1070-G1L	Glass	1 L

Cat No.	Package	Size
PC1070-G2.5L	Glass	2.5 L
PC1070-G4L	Glass	4 L

Ethyl Acetate, LVI-GC — Code LV1070

Specifications

Assay (by GC.)	99.90%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.05	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1070-G500ML	Glass	500 mL
LV1070-G1L	Glass	1 L

Cat No.	Package	Size
LV1070-G2.5L	Glass	2.5 L
LV1070-G4L	Glass	4 L

Ethyl Acetate, UV-IR — Code IR1070

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
300 nm	99%	min.

280 nm	95%	min.
270 nm	90%	min.
260 nm	70%	min.
Fluorescence (as quinine)		
at 254 nm	2	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1070-G500ML	Glass	500 mL
IR1070-G1L	Glass	1 L

Cat No.	Package	Size
IR1070-G2.5L	Glass	2.5 L
IR1070-G4L	Glass	4 L

Ethyl Acetate, Anhydrous (100 ppm) — Code AH1071

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.

Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Cat No.	Package	Size
AH1071-G500ML	Glass	500 mL
AH1071-G1L	Glass	1 L

Cat No.	Package	Size
AH1071-G2.5L	Glass	2.5 L
AH1071-G4L	Glass	4 L

Ethyl Acetate, Peptide Synthesis — Code PS1070

Specifications

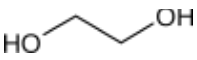
Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.

Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1070-G500ML	Glass	500 mL
PS1070-G1L	Glass	1 L

Cat No.	Package	Size
PS1070-G2.5L	Glass	2.5 L
PS1070-G4L	Glass	4 L

ETHYLENE GLYCOL



$C_2H_6O_2$	FW. 62.07	Density =	1.110 kg/L
EC No.	203-473-3	Melting Point	- 13 °C
CAS-No.	107-21-1	Boiling point	197.6 °C
EC-Index-No	603-027-00-1		

Warning

GHS: H302,H373; P260, P264, P270, P301+P317, P319, P330

Ethylene Glycol, AR — Code AR1294

Specifications

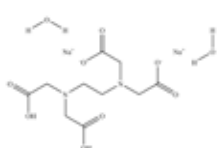
Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Appearance	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.1%	max.

Acidity (as acetic acid)	10	ppm max.
Chloride (Cl)	0.1	ppm max.
Aldehydes (as formaldehyde)	0.0008%	max.
Iron (Fe)	0.05	ppm max.
Sulfated ash	0.001%	max.

Cat No.	Package	Size
AR1294-G2.5L	Glass	2.5 L
AR1294-G4L	Glass	4 L
AR1294-P2.5L	Plastic	2.5 L
AR1294-P4L	Plastic	4 L

Cat No.	Package	Size
AR1294-P20L	Plastic	20 L
AR1294-P200L	Plastic	200 L
AR1294-M20L	Metal	20 L
AR1294-M200L	Metal	200 L

ETHYLENEDIAMINE TETRAACETIC ACID DISODIUM SALT DIHYDRATE



$C_{10}H_{14}N_2O_8Na_2.2H_2O$	FW. 372.24		
CAS-No.	6381-92-6	Melting Point	110 °C
EC No.	205-358-3		

Warning

GHS : H332, H373; P260, P271, P304+P340, P319

Ethylenediamine Tetraacetic Acid, Disodium Salt Dihydrate, AR — Code AR1240

Specifications

(Meet A.C.S. Specifications)

Assay	99.0 - 101.0%	
Identification	Passes test	
pH (5% solution at 25 °C)	4.0 - 6.0	
Insoluble matter	0.005%	max.

Nitrilotriacetic acid	0.1%	max.
Heavy metals (as Pb)	0.005%	max.
Iron (Fe)	0.01%	max.

Cat No.	Package	Size
AR1240-P500G	Plastic	500 g
AR1240-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1240-P5KG	Plastic	5 kg
AR1240-P25KG	Plastic	25 kg

Ethylenediamine Tetraacetic Acid, Disodium Salt Dihydrate, 0.1M (0.2N) — Code GN1469

Specifications

Appearance	Clear, colorless solution

Normality	0.1000M ± 0.0005M

Traceable to NIST

Cat No.	Package	Size
GN1469-P1L	Plastic	1 L
GN1469-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1469-P4L	Plastic	4 L

Ethylenediamine Tetraacetic Acid, Disodium Salt Dihydrate, 0.05M (0.1N) Code GN1471

Specifications

Appearance	Clear, colorless solution

Normality	0.0500M ± 0.0005M
Traceable to NIST	

Cat No.	Package	Size
GN1471-P1L	Plastic	1 L
GN1471-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1471-P4L	Plastic	4 L

Ethylenediamine Tetraacetic Acid, Disodium Salt Dihydrate, Pharma Code BP1240

Specifications

(Meets Ph.Eur, BP, USP/NF, JP)

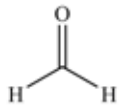
Assay	99.0 - 101.0%
Appearance	White or almost white, crystalline powder
Identity	Passes test
Appearance of solution	Clear and colorless
Solubility	Passes test
pH of a 5% solution at 25°C	4.0 - 5.5
pH of a 1% solution at 25°C	4.3 - 4.7

Loss on Drying at 150 oC (6 Hours)	8.7 - 11.4%	
Residue after Ignition	37.0 - 39.0%	
Nitrilotriacetic acid	0.1%	max.
Cyanide (CN)	Passes test	
Heavy metals (as Pb)	0.001%	max.
Arsenic (As)	0.0002%	max.
Calcium (Ca)	Passes test	
Iron (Fe)	0.008%	max.

Cat No.	Package	Size
BP1240-P500G	Plastic	500 g
BP1240-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1240-P5KG	Plastic	5 kg
BP1240-P25KG	Plastic	25 kg

FORMALDEHYDE 35 - 40 %



HCHO	FW. 30.03	Density =	1.090 kg/L
CAS-No.	50-00-0	Melting Point	<-15 °C
UN No.	2209		
EC No.	200-001-8	EC-Index-No	605-001-00-5
Class:	8	Packing Group:	III

Danger

GHS: H301 + H311 + H331, H314, H317, H335, H350, H370; P203, P260, P264, P270, P271, P272, P280, P301 + P316, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P308 + P316, P333 + P317, P361 + P364, P363, P403 + P233, P405

Formaldehyde 35 - 40%, AR — Code AR1072M

Specifications

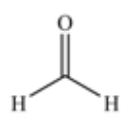
Assay	35.0-40.0%	
Acidity (mEq./g.)	0.01	max.
Residue on Evaporation	0.005%	max.

Stabilized with 4-12% w/w methanol.

Cat No.	Package	Size
AR1072M-G500ML	Glass	500 mL
AR1072M-G1L	Glass	1 L
AR1072M-G2.5L	Glass	2.5 L
AR1072M-G4L	Glass	4 L

Cat No.	Package	Size
AR1072M-P2.5L	Plastic	2.5 L
AR1072M-P4L	Plastic	4 L
AR1072M-P20L	Plastic	20 L
AR1072M-P200L	Plastic	200 L

FORMALDEHYDE 37%



HCHO	FW. 30.03	Density =	1.090 kg/L
CAS-No.	50-00-0	Melting Point	<-15 °C
UN No.	2209		
EC No.	200-001-8	EC-Index-No	605-001-00-5
Class:	8	Packing Group:	III

Danger

GHS: H301 + H311 + H331, H314, H317, H335, H350, H370; P203, P260, P264, P270, P271, P272, P280, P301 + P316, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P308 + P316, P333 + P317, P361 + P364, P363, P403 + P233, P405

Formaldehyde 37%, AR — Code AR1073M

Specifications

(Meet A.C.S. Specifications)

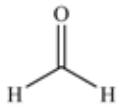
Assay	37.0%	min.
Identification A	Passes test	
Identification B	Passes test	
Appearance	Clear, free of suspended matter	
Color (APHA)	10	max.
Acidity (mEq./g.)	0.006	max.
Residue on Evaporation	0.005%	max.
Sulfate (SO_4)	0.002%	max.
Chloride (Cl)	5	ppm max.
Heavy metals (as Pb)	5	ppm max.
Iron (Fe)	5	ppm max.

Stabilized with 10-15% w/w methanol.

Cat No.	Package	Size
AR1073M-G500ML	Glass	500 mL
AR1073M-G1L	Glass	1 L
AR1073M-G2.5L	Glass	2.5 L
AR1073M-G4L	Glass	4 L

Cat No.	Package	Size
AR1073M-P2.5L	Plastic	2.5 L
AR1073M-P4L	Plastic	4 L
AR1073M-P20L	Plastic	20 L
AR1073M-P200L	Plastic	200 L

FORMALDEHYDE 40%



HCHO	FW. 30.03	Density =	1.090 kg/L
CAS-No.	50-00-0	Melting Point	<-15 °C
UN No.	2209		
EC No.	200-001-8	EC-Index-No	605-001-00-5
Class:	8	Packing Group:	III

Danger

GHS: H301 + H311 + H331, H314, H317, H335, H350, H370; P203, P260, P264, P270, P271, P272, P280, P301 + P316, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P308 + P316, P333 + P317, P361 + P364, P363, P403 + P233, P405

Formaldehyde 40%, AR — Code AR1074M

Specifications

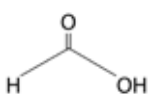
Assay	40.0%	
Acidity (mEq./g.)	0.01	max.
Residue on Evaporation	0.005%	max.

Stabilized with 4-12% w/w methanol.

Cat No.	Package	Size
AR1074M-G500ML	Glass	500 mL
AR1074M-G1L	Glass	1 L
AR1074M-G2.5L	Glass	2.5 L
AR1074M-G4L	Glass	4 L

Cat No.	Package	Size
AR1074M-P2.5L	Plastic	2.5 L
AR1074M-P4L	Plastic	4 L
AR1074M-P20L	Plastic	20 L
AR1074M-P200L	Plastic	200 L

FORMIC ACID 98%



HCOOH	FW. 46.03	Density =	1.22 Kg/L
CAS-No.	64-18-6	Melting Point	8.5 °C
UN No.	1779	Boiling Point	100.80 °C
EC No.	200-579-1	EC-Index-No	607-001-00-0
Class:	8 (3)	Packing Group:	II

Danger

GHS: H226, H302, H314, H331; P210, P260, P264, P280, P301 + P330 + P331, P303 + P361 + P353, P304 + P340, P305 + P354 + P338

Formic Acid 98%, AR — Code AR1310

Specifications

(Meet A.C.S. Specifications)

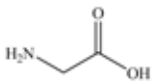
Assay (by acidimetry)	98.0%	min.
Appearance	Clear and colorless liquid	
Color (APHA)	10	max.
Dilution test	Passes test	
Residue after evaporation	0.003%	max.
Acetic Acid (CH3COOH)	0.4%	max.
Aldehydes	Passes test	
Formaldehyde (HCHO)	0.1%	max.
Ammonium (NH4)	0.005%	max.
Chloride (Cl)	0.0005%	max.
Sulfate (SO4)	0.003%	max.
Sulfite (SO3)	Passes test	

Heavy metals (as Pb)	5	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.05	ppm max.
Copper (Cu)	0.5	ppm max.
Iron (Fe)	1.0	ppm max.
Lead (Pb)	0.5	ppm max.
Magnesium (Mg)	0.5	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.1	ppm max.
Silicon (Si)	2.0	ppm max.
Sodium (Na)	0.5	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
AR1310-G500ML	Glass	500 mL
AR1310-G1L	Glass	1 L
AR1310-G2.5L	Glass	2.5 L
AR1310-G4L	Glass	4 L

Cat No.	Package	Size
AR1310-P2.5L	Plastic	2.5 L
AR1310-P4L	Plastic	4 L
AR1310-P20L	Plastic	20 L
AR1310-P200L	Plastic	200 L

GLYCINE



NH_2CH_2COOH	FW. 75.07	Density =	1.595 g/cm^3
CAS-No.	56-40-6	Melting Point	232 - 236 °C
EC No.	200-272-2		

Glycine, AR — Code AR1077

Specifications

Description	White crystalline powder	
Assay	99.0%	min.
Melting range	235 - 245 °C	
Loss on drying	0.2%	max.
Residue on Ignition	0.05%	max.
Chloride (Cl)	0.002%	max.
Sulfate (SO_4)	0.002%	max.
Heavy metals (as Pb)	0.002%	max.

Cat No.	Package	Size
AR1077-P500G	Plastic	500 g

Cat No.	Package	Size
AR1077-P20G	Plastic	20 kg

n-HEPTANE 95%

$CH_3(CH_2)_5CH_3$	FW. 100.21	Density =	0.680 kg/L
CAS-No.	142-82-5	Melting Point	-90.5 °C
UN No.	1206	Boiling Point	97-98 °C
EC No.	205-563-8	EC-Index-No	601-008-00-2
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

n-Heptane 95%, AR — Code AR1078

Specifications

Assay (by GC.)	95.0%	min.	Residue on Evaporation	0.001%	max.
Water (by Coulometry)	0.02%	max.	Sulfur Compounds (S)	0.001%	max.
Acidity (mEq./g.)	0.0005	max.			

Cat No.	Package	Size
AR1078-G500ML	Glass	500 mL
AR1078-G1L	Glass	1 L
AR1078-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1078-G4L	Glass	4 L
AR1078-M20L	Metal	20 L
AR1078-M200L	Metal	200 L

n-Heptane 95%, RCI Premium — Code RP1078

Specifications

(Meet USP/NF)

Assay (by GC.)	95.0%	min.	Cadmium (Cd)	0.02	ppm max.
Identity (IR)	Passes test		Calcium (Ca)	0.2	ppm max.
Appearance	Clear		Chromium (Cr)	0.01	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.01%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aromatic hydrocarbons (as C_6H_6)	0.1%	max.	Magnesium (Mg)	0.05	ppm max.
Sulfur Compounds (S)	0.001%	max.	Manganese (Mn)	0.01	ppm max.
Aluminium (Al)	0.2	ppm max.	Nickel (Ni)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Tin (Sn)	0.05	ppm max.
Boron (B)	0.01	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1078-G500ML	Glass	500 mL
RP1078-G1L	Glass	1 L
RP1078-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1078-G4L	Glass	4 L
RP1078-M20L	Metal	20 L
RP1078-M200L	Metal	200 L

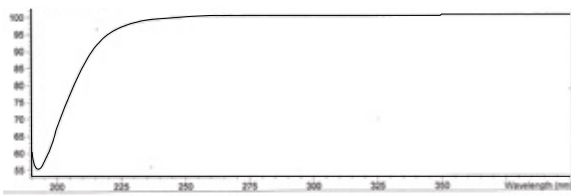
n-Heptane 95%, HPLC — Code LC1078

Specifications

Assay (by GC.)	95.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	80%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



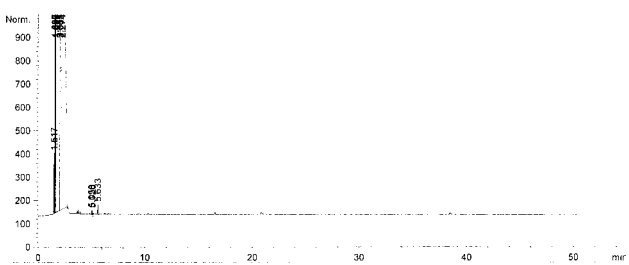
Cat No.	Package	Size
LC1078-G500ML	Glass	500 mL
LC1078-G1L	Glass	1 L

Cat No.	Package	Size
LC1078-G2.5L	Glass	2.5 L
LC1078-G4L	Glass	4 L

n-Heptane 95%, Pesticide — Code PC1078

Specifications

Assay (by GC.)	95.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1078-G500ML	Glass	500 mL
PC1078-G1L	Glass	1 L

Cat No.	Package	Size
PC1078-G2.5L	Glass	2.5 L
PC1078-G4L	Glass	4 L

n-Heptane 95%, LVI-GC — Code LV1078

Specifications

Assay (by GC.)	95.00%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1078-G500ML	Glass	500 mL
LV1078-G1L	Glass	1 L

Cat No.	Package	Size
LV1078-G2.5L	Glass	2.5 L
LV1078-G4L	Glass	4 L

n-HEPTANE 97%

$CH_3(CH_2)_5CH_3$	FW. 100.21	Density =	0.680 kg/L
CAS-No.	142-82-5	Melting Point	-90.5 °C
UN No.	1206	Boiling Point	97-98 °C
EC No.	205-563-8	EC-Index-No	601-008-00-2
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

n-Heptane 97%, AR — Code AR1079

Specifications

Assay (by GC.)	97.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1079-G500ML	Glass	500 mL
AR1079-G1L	Glass	1 L
AR1079-G2.5L	Glass	2.5 L
AR1079-G4L	Glass	4 L
AR1079-M20L	Metal	20 L
AR1079-M200L	Metal	200 L

n-Heptane 97%, RCI Premium — Code RP1079

Specifications (Meet USP/NF)

Assay (by GC.)	97.0%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aromatic hydrocarbons (as C_6H_6)	0.1%	max.
Sulfur Compounds (S)	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1079-G500ML	Glass	500 mL
RP1079-G1L	Glass	1 L
RP1079-G2.5L	Glass	2.5 L
RP1079-G4L	Glass	4 L
RP1079-M20L	Metal	20 L
RP1079-M200L	Metal	200 L

n-HEPTANE 99%

$CH_3(CH_2)_5CH_3$	FW. 100.21	Density =	0.680 kg/L
CAS-No.	142-82-5	Melting Point	-90.5 °C
UN No.	1206	Boiling Point	97-98 °C
EC No.	205-563-8	EC-Index-No	601-008-00-2
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

n-Heptane 99%, AR — Code AR1080

Specifications

Assay (by GC.)	99.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1080-G500ML	Glass	500 mL
AR1080-G1L	Glass	1 L
AR1080-G2.5L	Glass	2.5 L
AR1080-G4L	Glass	4 L
AR1080-M20L	Metal	20 L
AR1080-M200L	Metal	200 L

n-Heptane 99%, RCI Premium — Code RP1080

Specifications (Meet USP/NF)

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aromatic hydrocarbons (as C_6H_6)	0.1%	max.
Readily carbonizable substance	Passes test	
Sulfur Compounds (S)	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1080-G500ML	Glass	500 mL
RP1080-G1L	Glass	1 L
RP1080-G2.5L	Glass	2.5 L
RP1080-G4L	Glass	4 L
RP1080-M20L	Metal	20 L
RP1080-M200L	Metal	200 L

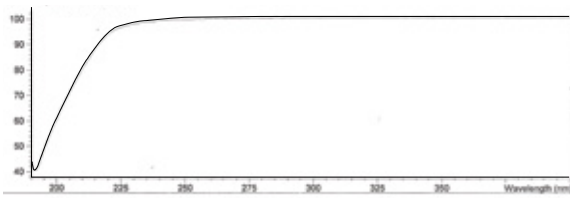
n-Heptane 99%, HPLC — Code LC1080

Specifications

Assay (by GC.)	99.3%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	80%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



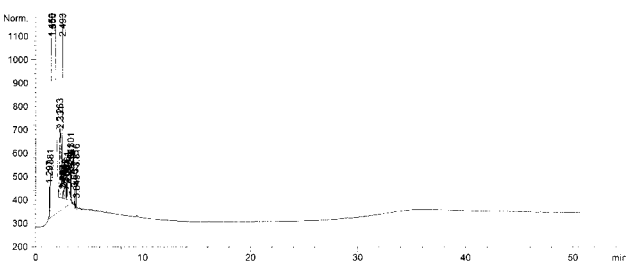
Cat No.	Package	Size
LC1080-G500ML	Glass	500 mL
LC1080-G1L	Glass	1 L

Cat No.	Package	Size
LC1080-G2.5L	Glass	2.5 L
LC1080-G4L	Glass	4 L

n-Heptane 99%, Pesticide — Code PC1080

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1080-G500ML	Glass	500 mL
PC1080-G1L	Glass	1 L

Cat No.	Package	Size
PC1080-G2.5L	Glass	2.5 L
PC1080-G4L	Glass	4 L

n-Heptane 99%, LVI-GC — Code LV1080

Specifications

Assay (by GC.)	99.00%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1080-G500ML	Glass	500 mL
LV1080-G1L	Glass	1 L

Cat No.	Package	Size
LV1080-G2.5L	Glass	2.5 L
LV1080-G4L	Glass	4 L

n-Heptane 99%, UV-IR — Code IR1080

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	98%	min.

230 nm	90%	min.
220 nm	80%	min.
210 nm	50%	min.
200 nm	10%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1080-G500ML	Glass	500 mL
IR1080-G1L	Glass	1 L

Cat No.	Package	Size
IR1080-G2.5L	Glass	2.5 L
IR1080-G4L	Glass	4 L

n-Heptane 99%, Anhydrous (50 ppm) — Code AH1081

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.

Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Cat No.	Package	Size
AH1080-G500ML	Glass	500 mL
AH1080-G1L	Glass	1 L

Cat No.	Package	Size
AH1080-G2.5L	Glass	2.5 L
AH1080-G4L	Glass	4 L

HEPTANE FRACTION

$CH_3(CH_2)_5CH_3$	FW. 100.21	Density =	0.680-0.690 kg/L
CAS-No.	142-82-5	Melting Point	-90.5 °C
UN No.	1206	Boiling Point	97-98 °C
EC No.	205-563-8	EC-Index-No	601-008-00-2
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

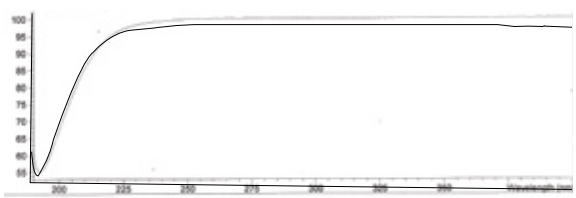
Heptane Fraction, HPLC — Code LC1082

Specifications

Assay (by GC.)	85.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	80%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

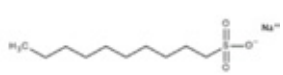
Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1082-G500ML	Glass	500 mL
LC1082-G1L	Glass	1 L

Cat No.	Package	Size
LC1082-G2.5L	Glass	2.5 L
LC1082-G4L	Glass	4 L

1-HEPTANESULFONIC ACID SODIUM SALT ANHYDROUS



$C_7H_{15}NaO_3S$	FW. 202.25		
CAS-No.	22767-50-6	Melting Point	299 - 301 °C
EC No.	245-210-5		

1-Heptanesulfonic Acid Sodium Salt Anhydrous, HPLC — Code LC1423

Specifications

Description	White crystalline powder	
Assay	99.0%	min.
(Alkalimetric; calculated on dried substance)		
Identity (IR)	Passes test	
pH value (10% Solution)	5.5 - 7.5	

Loss on drying (at 120 oC, vacuum)	2.0%	max.
UV Transmission Levels,%T (0.005 mol/l in water)		
250 nm	98%	min.
220 nm	90%	min.
200 nm	70%	min.

Cat No.	Package	Size
LC1423-G25G	Glass	25 g

n-HEXANE 95%

$CH_3(CH_2)_4CH_3$	FW. 86.18	Density =	0.660 kg/L
CAS-No.	110-54-3	Melting Point	-94.3 °C
UN No.	1208	Boiling Point	69 °C
EC No.	203-777-6	EC-Index-No	601-037-00-0
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411; P203, P210, P233, P240, P242, P243, P260, P264, P273, P280, P301 + P316, P303 + P361 + P353, P304 + P340, P319, P331, P362+P364, P391,P403 + P235, P405

n-Hexane 95%, AR — Code AR1083

Specifications

Assay (by GC.)	95.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.

Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1083-G500ML	Glass	500 mL
AR1083-G1L	Glass	1 L
AR1083-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1083-G4L	Glass	4 L
AR1083-M25L	Metal	25 L
AR1083-M200L	Metal	200 L

n-Hexane 95%, RCI Premium — Code RP1083

Specifications

Assay (by GC.)	95.0%	min.
Assay (by GC. : Total C6 Isomers)	98.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Aromatic hydrocarbons (as C_6H_6)	0.01%	max.
Readily carbonizable substance	Passes test	
Sulfur Compounds (S)	0.001%	max.
Thiophene	Passes test	
UV Transmission Levels (%T)		
420 - 260 nm	97%	min.
Aluminium (Al)	0.2	ppm max.

Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1083-G500ML	Glass	500 mL
RP1083-G1L	Glass	1 L
RP1083-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1083-G4L	Glass	4 L
RP1083-M20L	Metal	20 L
RP1083-M200L	Metal	200 L

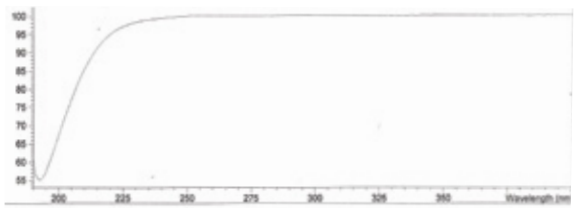
n-Hexane 95%, HPLC — Code LC1083

Specifications

Assay (by GC.)	95.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
240 nm	99%	min.
230 nm	98%	min.
220 nm	90%	min.
210 nm	70%	min.
200 nm	50%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1083-G500ML	Glass	500 mL
LC1083-G1L	Glass	1 L

Cat No.	Package	Size
LC1083-G2.5L	Glass	2.5 L
LC1083-G4L	Glass	4 L

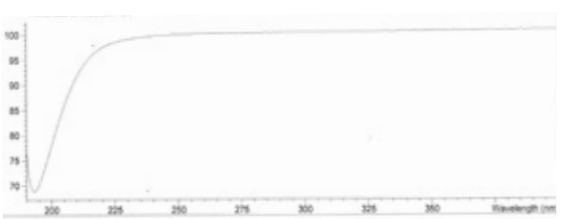
n-Hexane 95%, HPLC Plus — Code LC1084

Specifications

Assay (by GC.)	95.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
240 nm	99%	min.
230 nm	98%	min.
220 nm	90%	min.
210 nm	70%	min.
200 nm	50%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Silicone oil	Free
DOP	Free
Amide	Free

Product passed through 0.2 micron final filter.



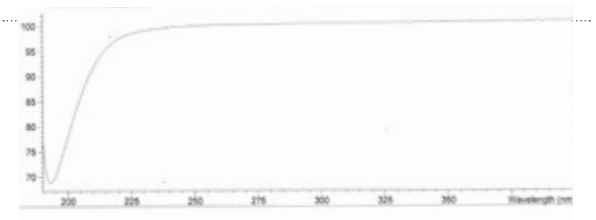
Cat No.	Package	Size
LC1084-G500ML	Glass	500 mL
LC1084-G1L	Glass	1 L

Cat No.	Package	Size
LC1084-G2.5L	Glass	2.5 L
LC1084-G4L	Glass	4 L

n-Hexane 95%, Pesticide — Code PC1083

Specifications

Assay (n-Hexane)	95.0%	min.
Assay (Total C6 Isomers)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
PC1083-G500ML	Glass	500 mL
PC1083-G1L	Glass	1 L

Cat No.	Package	Size
PC1083-G2.5L	Glass	2.5 L
PC1083-G4L	Glass	4 L

n-Hexane 95%, LVI-GC — Code LV1083

Specifications

Assay (n-Hexane)	95.00%	min.
Assay (Total C6 Isomers)	99.50%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1083-G500ML	Glass	500 mL
LV1083-G1L	Glass	1 L

Cat No.	Package	Size
LV1083-G2.5L	Glass	2.5 L
LV1083-G4L	Glass	4 L

n-HEXANE 99%

$CH_3(CH_2)_4CH_3$	FW. 86.18	Density =	0.660 kg/L
CAS-No.	110-54-3	Melting Point	-94.3 °C
UN No.	1208	Boiling Point	69 °C
EC No.	203-777-6	EC-Index-No	601-037-00-0
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411; P203, P210, P233, P240, P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + 317, P362+P364, P391,P403 + P235, P405

n-Hexane 99%, AR — Code AR1085

Specifications

Assay (by GC.)	99.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1085-G500ML	Glass	500 mL
AR1085-G1L	Glass	1 L
AR1085-G2.5L	Glass	2.5 L
AR1085-G4L	Glass	4 L
AR1085-M25L	Metal	25 L
AR1085-M200L	Metal	200 L

n-Hexane 99%, RCI Premium — Code RP1085

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Aromatic hydrocarbons (as C_6H_6)	0.01%	max.
Sulfur Compounds (S)	0.001%	max.
Thiophene	Passes test	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1085-G500ML	Glass	500 mL
RP1085-G1L	Glass	1 L
RP1085-G2.5L	Glass	2.5 L
RP1085-G4L	Glass	4 L
RP1085-M20L	Metal	20 L
RP1085-M200L	Metal	200 L

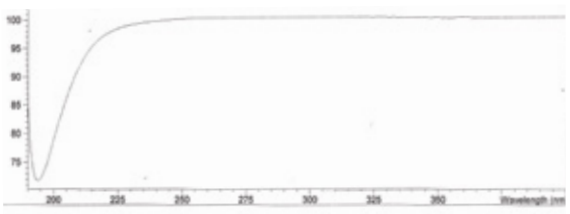
n-Hexane 99%, HPLC — Code LC1085

Specifications

Assay (by GC.)	99.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
240 nm	99%	min.
230 nm	98%	min.
220 nm	90%	min.
210 nm	70%	min.
200 nm	50%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1085-G500ML	Glass	500 mL
LC1085-G1L	Glass	1 L

Cat No.	Package	Size
LC1085-G2.5L	Glass	2.5 L
LC1085-G4L	Glass	4 L

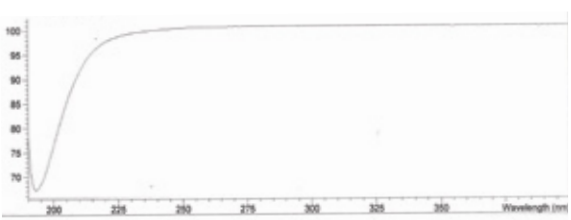
n-Hexane 99%, HPLC Plus — Code LC1086

Specifications

Assay (by GC.)	99.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
240 nm	99%	min.
230 nm	98%	min.
220 nm	90%	min.
210 nm	70%	min.
200 nm	50%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1086-G500ML	Glass	500 mL
LC1086-G1L	Glass	1 L

Cat No.	Package	Size
LC1086-G2.5L	Glass	2.5 L
LC1086-G4L	Glass	4 L

n-Hexane 99%, GC-MS — Code GM1085

Specifications

Assay (by GC.)	99.00%	min.
Assay (Total C6 Isomers)	99.80%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0002%	max.

Substances darkened by sulfuric acid	Passes test	
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak, (retention range n-undecane to n-tetracontane)		

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
GM1085-G500ML	Glass	500 mL
GM1085-G1L	Glass	1 L

Cat No.	Package	Size
GM1085-G2.5L	Glass	2.5 L
GM1085-G4L	Glass	4 L

n-Hexane 99%, Pesticide — Code PC1085

Specifications

Assay (by GC.)	99.0%	min.
Assay (Total C6 Isomers)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
PC1085-G500ML	Glass	500 mL
PC1085-G1L	Glass	1 L

Cat No.	Package	Size
PC1085-G2.5L	Glass	2.5 L
PC1085-G4L	Glass	4 L

n-Hexane 99%, LVI-GC — Code LV1085

Specifications

Assay (by GC.)	99.00%	min.
Assay (Total C6 Isomers)	99.80%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.05	mg/L max.

Total isomers : n-Hexane, Methylpentane, Methylcyclopentane and Dimethylbutane.
Residual trace analysis concentration 500 : 0.5 mL.
Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1085-G500ML	Glass	500 mL
LV1085-G1L	Glass	1 L

Cat No.	Package	Size
LV1085-G2.5L	Glass	2.5 L
LV1085-G4L	Glass	4 L

n-Hexane 99%, UV-IR — Code IR1085

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	98%	min.
240 nm	95%	min.
220 nm	85%	min.
210 nm	60%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1085-G500ML	Glass	500 mL
IR1085-G1L	Glass	1 L
IR1085-G2.5L	Glass	2.5 L
IR1085-G4L	Glass	4 L

n-Hexane 99%, Anhydrous (50 ppm) — Code AH1087

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Cat No.	Package	Size
AH1087-G500ML	Glass	500 mL
AH1087-G1L	Glass	1 L
AH1087-G2.5L	Glass	2.5 L
AH1087-G4L	Glass	4 L

HEXANE FRACTION

C_6H_{14}	FW. 86.18	Density =	0.660 kg/L
CAS-No.	110-54-3	Melting Point	-94.3 °C
UN No.	1208	Boiling Point	67-69 °C
EC No.	203-777-6	EC-Index-No	601-037-00-0
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411;P203, P210, P233, P240, P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405.

Hexane Fraction, AR — Code AR1088

Specifications

Assay (by GC.)	45.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1088-G500ML	Glass	500 mL
AR1088-G1L	Glass	1 L
AR1088-G2.5L	Glass	2.5 L
AR1088-G4L	Glass	4 L
AR1088-M25L	Metal	25 L
AR1088-M200L	Metal	200 L

Hexane Fraction, RCI Premium — Code RP1088

Specifications

Assay (by GC. : n-Hexane)	45.0%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1088-G500ML	Glass	500 mL
RP1088-G1L	Glass	1 L
RP1088-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1088-G4L	Glass	4 L
RP1088-M20L	Metal	20 L
RP1088-M200L	Metal	200 L

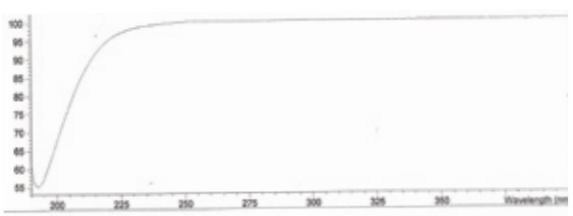
Hexane Fraction, HPLC — Code LC1088

Specifications

Assay (by GC.)	45.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	80%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1088-G500ML	Glass	500 mL
LC1088-G1L	Glass	1 L

Cat No.	Package	Size
LC1088-G2.5L	Glass	2.5 L
LC1088-G4L	Glass	4 L

HEXANES

C_6H_{14}	FW. 86.18	Density =	0.660 kg/L
CAS-No.	110-54-3	Melting Point	-94.3 °C
UN No.	1208	Boiling Point	69 °C
EC No.	203-777-6	EC-Index-No	601-037-00-0
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411; P203, P210, P233, P240, P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Hexanes, AR — Code AR1090

Specifications

Assay (by GC. : Total C_6 Isomers)	99.0%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.

Sulfur Compounds (S)	0.005%	max.
Thiophene	Passes test	

Total Isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
AR1090-G500ML	Glass	500 mL
AR1090-G1L	Glass	1 L
AR1090-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1090-G4L	Glass	4 L
AR1090-M20L	Metal	20 L
AR1090-M200L	Metal	200 L

Hexanes, RCI Premium — Code RP1090

Specifications

(Meet A.C.S. Specifications)

Assay (by GC. : Total C_6 Isomers)	99.0%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Aromatic hydrocarbons (as C_6H_6)	0.01%	max.
Sulfur Compounds (S)	0.001%	max.
Thiophene	Passes test	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.

Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Total Isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
RP1090-G500ML	Glass	500 mL
RP1090-G1L	Glass	1 L
RP1090-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1090-G4L	Glass	4 L
RP1090-M20L	Metal	20 L
RP1090-M200L	Metal	200 L

Hexanes, HPLC — Code LC1090

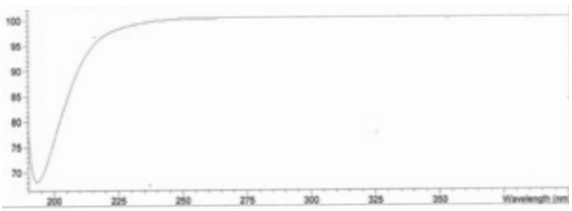
Specifications

Assay (by GC. : Total C_6 Isomers)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
240 nm	99%	min.
230 nm	98%	min.
220 nm	90%	min.
210 nm	70%	min.
200 nm	50%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1090-G500ML	Glass	500 mL
LC1090-G1L	Glass	1 L

Cat No.	Package	Size
LC1090-G2.5L	Glass	2.5 L
LC1090-G4L	Glass	4 L

Hexanes, HPLC Plus — Code LC1226

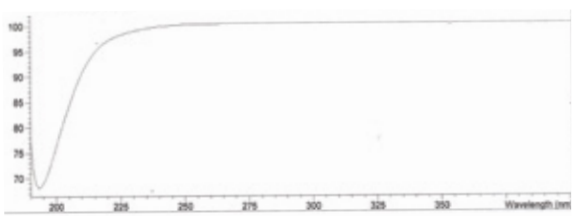
Specifications

Assay (by GC. : Total C_6 Isomers)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
240 nm	99%	min.
230 nm	98%	min.
220 nm	90%	min.
210 nm	70%	min.
200 nm	50%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Silicone oil	Free
DOP	Free
Amide	Free

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1226-G500ML	Glass	500 mL
LC1226-G1L	Glass	1 L

Cat No.	Package	Size
LC1226-G2.5L	Glass	2.5 L
LC1226-G4L	Glass	4 L

Hexanes, SDF — Code XP1100

Specifications

Assay (by GC. : Total C_6 Isomers)	99.5%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0005%	max.
Sulfur Compounds (S)	0.001%	max.
Thiophene	Passes test	

Silicone oil	Free
DOP	Free
Amide	Free

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
XP1100-G500ML	Glass	500 mL
XP1100-G1L	Glass	1 L
XP1100-G2.5L	Glass	2.5 L

Cat No.	Package	Size
XP1100-G4L	Glass	4 L
XP1100-M20L	Metal	20 L

Hexanes, SDF Low Chloride — Code XP1101

Specifications

Assay (by GC. : Total C_6 Isomers)	99.5%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0005%	max.
Chloride (Cl)	0.02	ppm max.
Sulfur Compounds (S)	0.001%	max.
Thiophene	Passes test	

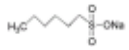
Silicone oil	Free
DOP	Free
Amide	Free

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Cat No.	Package	Size
XP1101-G500ML	Glass	500 mL
XP1101-G1L	Glass	1 L
XP1101-G2.5L	Glass	2.5 L

Cat No.	Package	Size
XP1101-G4L	Glass	4 L
XP1101-M20L	Metal	20 L

1-HEXANESULFONIC ACID SODIUM SALT ANHYDROUS



$C_6H_{13}NaO_3S$	FW. 188.22	Melting Point	> 300 °C
CAS-No.	2832-45-3		
EC No.	220-601-3		

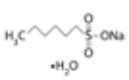
1-Hexanesulfonic Acid Sodium Salt Anhydrous, HPLC — Code LC1421

Specifications

Description	White crystalline powder		Loss on drying (at 120 oC, vacuum)	2.0%	max.
Assay (Alkalimetric; calculated on	99.0%	min.	UV Transmission Levels,%T (0.005 mol/l in water)		
dried substance)			250 nm	98%	min.
Identity (IR)	Passes test		220 nm	90%	min.
pH value (10% Solution)	5.5 - 7.5		200 nm	70%	min.

Cat No.	Package	Size
LC1421-G25G	Glass	25 g

1-HEXANESULFONIC ACID SODIUM SALT MONOHYDRATE



$C_6H_{13}NaO_3S.H_2O$	FW. 206.24	Melting point	> 300 °C
CAS-No.	207300-91-2		
EC No.	220-601-3		

1-Hexanesulfonic Acid Sodium Salt Monohydrate, HPLC — Code LC1422

Specifications

Description	White crystalline powder		Loss on drying (at 120 °C, vacuum)	8.0 - 9.0%	max.
Assay (Alkalimetric; calculated on	99.0%	min.	UV Transmission Levels,%T (0.005 mol/l in water)		
dried substance)			250 nm	98%	min.
Identity (IR)	Passes test		220 nm	90%	min.
pH value (10% Solution)	5.5 - 7.5		200 nm	70%	min.

Cat No.	Package	Size
LC1422-G100G	Glass	100 g

HYDROCHLORIC ACID 3%

HCl	FW. 36.46	Density =	1.02 kg/L
CAS-No.	7647-01-0	UN No.	1789
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric Acid 3%, AR — Code AR1301

Specifications

Assay (by acidimetry)	3%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3.0	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.

Sulfite (SO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.005	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.005	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
AR1301-G500ML	Glass	500 mL
AR1301-G1L	Glass	1 L
AR1301-G2.5L	Glass	2.5 L
AR1301-G4L	Glass	4 L

Cat No.	Package	Size
AR1301-P2.5L	Plastic	2.5 L
AR1301-P4L	Plastic	4 L
AR1301-P20L	Plastic	20 L
AR1301-P200L	Plastic	200 L

Hydrochloric Acid 3%, Semig — Code SM1301

Specifications

Assay (by acidimetry)	3%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	5	ppm max.
Phosphate (PO_4)	0.05	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	0.5	ppm max.
Extractable Organic Substance	5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.2	ppm max.
Antimony (Sb)	0.005	ppm max.
Arsenic (As)	0.005	ppm max.

Boron (B)	0.1	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Gold (Au)	0.2	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.005	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.03	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
SM1301-G500ML	Glass	500 mL
SM1301-G1L	Glass	1 L
SM1301-G2.5L	Glass	2.5 L
SM1301-G4L	Glass	4 L

Cat No.	Package	Size
SM1301-P2.5L	Plastic	2.5 L
SM1301-P4L	Plastic	4 L
SM1301-P20L	Plastic	20 L
SM1301-P200L	Plastic	200 L

HYDROCHLORIC ACID 4%

HCl	FW. 36.46	Density =	1.02 kg/L
CAS-No.	7647-01-0	UN No.	1789
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric Acid 4%, AR — Code AR1269

Specifications

Assay (by acidimetry)	4%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3.0	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.

Sulfite (SO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.005	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.005	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
AR1269-G500ML	Glass	500 mL
AR1269-G1L	Glass	1 L
AR1269-G2.5L	Glass	2.5 L
AR1269-G4L	Glass	4 L

Cat No.	Package	Size
AR1269-P2.5L	Plastic	2.5 L
AR1269-P4L	Plastic	4 L
AR1269-P20L	Plastic	20 L

HYDROCHLORIC ACID 5%

HCl	FW. 36.46	Density =	1.03 kg/L
CAS-No.	7647-01-0	Melting point	-6 °C
UN No.	1789	Boiling point	101 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric Acid 5%, AR — Code AR1102

Specifications

Assay (by acidimetry)	5.0%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3.0	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.

Sulfite (SO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.005	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.005	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
AR1102-G500ML	Glass	500 mL
AR1102-G1L	Glass	1 L
AR1102-G2.5L	Glass	2.5 L
AR1102-G4L	Glass	4 L

Cat No.	Package	Size
AR1102-P2.5L	Plastic	2.5 L
AR1102-P4L	Plastic	4 L
AR1102-P20L	Plastic	20 L
AR1102-P200L	Plastic	200 L

HYDROCHLORIC ACID 6%

HCl	FW. 36.46	Density =	1.03 kg/L
CAS-No.	7647-01-0	Melting point	-8 °C
UN No.	1789	Boiling point	101 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric Acid 6%, Semig — Code SM1415

Specifications

Assay (by acidimetry)	6%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	5	ppm max.
Phosphate (PO_4)	0.05	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	0.5	ppm max.
Extractable Organic Substance	5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.2	ppm max.
Antimony (Sb)	0.005	ppm max.
Arsenic (As)	0.005	ppm max.

Boron (B)	0.1	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Gold (Au)	0.2	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.005	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.03	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
SM1415-G500ML	Glass	500 mL
SM1415-G1L	Glass	1 L
SM1415-G2.5L	Glass	2.5 L
SM1415-G4L	Glass	4 L

Cat No.	Package	Size
SM1415-P2.5L	Plastic	2.5 L
SM1415-P4L	Plastic	4 L
SM1415-P20L	Plastic	20 L
SM1415-P200L	Plastic	200 L

HYDROCHLORIC ACID 7.5%

HCl	FW. 36.46	Density =	1.04 kg/L
CAS-No.	7647-01-0	Melting point	-10 °C
UN No.	1789	Boiling point	102 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric Acid 7.5%, AR — Code AR1103

Specifications

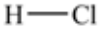
Assay (by acidimetry)	7.5%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3.0	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.

Sulfite (SO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.005	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.005	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
AR1103-G500ML	Glass	500 mL
AR1103-G1L	Glass	1 L
AR1103-G2.5L	Glass	2.5 L
AR1103-G4L	Glass	4 L

Cat No.	Package	Size
AR1103-P2.5L	Plastic	2.5 L
AR1103-P4L	Plastic	4 L
AR1103-P20L	Plastic	20 L
AR1103-P200L	Plastic	200 L

HYDROCHLORIC ACID 9%



HCl	FW. 36.46	Density =	1.04 kg/L
CAS-No.	7647-01-0	Melting point	-14 °C
UN No.	1789	Boiling point	102 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric Acid 9%, AR — Code AR1320

Specifications

Assay (by acidimetry)	9%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.
Free Chlorine (Cl)	1.0	ppm max.

Bromide (Br)	1.0	ppm max.
Sulfate (SO_4)	1.0	ppm max.
Sulfite (SO_3)	1.0	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1320-G500ML	Glass	500 mL
AR1320-G1L	Glass	1 L
AR1320-G2.5L	Glass	2.5 L
AR1320-G4L	Glass	4 L

Cat No.	Package	Size
AR1320-P2.5L	Plastic	2.5 L
AR1320-P4L	Plastic	4 L
AR1320-P20L	Plastic	20 L

HYDROCHLORIC ACID 10%

HCl	FW. 36.46	Density =	1.05 kg/L
CAS-No.	7647-01-0	Melting Point	-15 °C
UN No.	1789	Boiling Point	103 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III

Warning

GHS: H290, H315, H319, H335; P234, P261, P264, P271, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P319, P332 + P317, P337 + P317, P362+P364, P390, P403 + P233, P405, P406

Hydrochloric Acid 10%, AR — Code AR1260

Specifications

Assay (by acidimetry)	10%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.
Free Chlorine (Cl)	1.0	ppm max.

Bromide (Br)	1.0	ppm max.
Sulfate (SO_4)	1.0	ppm max.
Sulfite (SO_3)	1.0	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1260-G500ML	Glass	500 mL
AR1260-G1L	Glass	1 L
AR1260-G2.5L	Glass	2.5 L
AR1260-G4L	Glass	4 L

Cat No.	Package	Size
AR1260-P2.5L	Plastic	2.5 L
AR1260-P4L	Plastic	4 L
AR1260-P20L	Plastic	20 L

Hydrochloric Acid 10%, Pharma — Code BP1260

Specifications

(Meets Ph.Eur, BP, USP/NF, JP)

Assay (by acidimetry)	9.5 - 10.5%	
Appearance	Clear and colorless	
Identity	Passes test	
Color (APHA)	10	max.
Solubility	Passes test	
Residue on Evaporation	0.005%	max.
Residue after Ignition	0.0005%	max.
Ammonium (NH_4)	3	ppm max.
Bromide (Br)	50	ppm max.
Bromide or Iodide	Passes test	
Free Bromine or Chlorine	Passes test	

Free Chlorine (Cl)	1	ppm max.
Sulfate (SO_4)	1	ppm max.
Sulfite (SO_3)	Passes test	
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.01	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
BP1260-G500ML	Glass	500 mL
BP1260-G1L	Glass	1 L
BP1260-G2.5L	Glass	2.5 L
BP1260-G4L	Glass	4 L
BP1260-P2.5L	Plastic	2.5 L
BP1260-P4L	Plastic	4 L

Cat No.	Package	Size
BP1260-P15L	Plastic	15 L
BP1260-P20L	Plastic	20 L
BP1260-P25L	Plastic	25 L
BP1260-P200L	Plastic	200 L
BP1260-P1,000L	Plastic	1,000 L

HYDROCHLORIC ACID 18%

HCl	FW. 36.46	Density =	1.09 kg/L
CAS-No.	7647-01-0		
UN No.	1789		
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III

Warning

GHS: H290, H315, H319, H335; P234, P261, P264, P271, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P319, P332 + P317, P337 + P317, P362+P364, P390, P403 + P233, P405, P406

Hydrochloric Acid 18%, AR — Code AR1127

Specifications

Assay (by acidimetry)	18%	min.	Bromide (Br)	1.0	ppm max.
Appearance	Passes test		Sulfate (SO_4)	1.0	ppm max.
Color (APHA)	10	max.	Sulfite (SO_3)	1.0	ppm max.
Residue after Ignition	5.0	ppm max.	Heavy metals (as Pb)	1.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.	Arsenic (As)	0.01	ppm max.
Free Chlorine (Cl)	1.0	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1127-G500ML	Glass	500 mL
AR1127-G1L	Glass	1 L
AR1127-G2.5L	Glass	2.5 L
AR1127-G4L	Glass	4 L

Cat No.	Package	Size
AR1127-P2.5L	Plastic	2.5 L
AR1127-P4L	Plastic	4 L
AR1127-P20L	Plastic	20 L
AR1127-P200L	Plastic	200 L

HYDROCHLORIC ACID 20%

HCl	FW. 36.46	Density =	1.09 kg/L
CAS-No.	7647-01-0	Melting point	-60 °C
UN No.	1789	Boiling point	109 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III

Warning

GHS: H290, H315, H319, H335; P234, P261, P264, P271, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P319, P332 + P317, P337 + P317, P362+P364, P390, P403 + P233, P405, P406

Hydrochloric Acid 20%, AR — Code AR1229

Specifications

Assay (by acidimetry)	20±1%		Bromide (Br)	1.0	ppm max.
Appearance	Passes test		Sulfate (SO_4)	1.0	ppm max.
Color (APHA)	10	max.	Sulfite (SO_3)	1.0	ppm max.
Residue after Ignition	5.0	ppm max.	Heavy metals (as Pb)	1.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.	Arsenic (As)	0.01	ppm max.
Free Chlorine (Cl)	1.0	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1229-G500ML	Glass	500 mL
AR1229-G1L	Glass	1 L
AR1229-G2.5L	Glass	2.5 L
AR1229-G4L	Glass	4 L

Cat No.	Package	Size
AR1229-P2.5L	Plastic	2.5 L
AR1229-P4L	Plastic	4 L
AR1229-P20L	Plastic	20 L
AR1229-P200L	Plastic	200 L

HYDROCHLORIC ACID 25%

HCl	FW. 36.46	Density =	1.12 kg/L
CAS-No.	7647-01-0	Melting Point	-85 °C
UN No.	1789	Boiling Point	105 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	II

Danger

GHS: H290, H314, H335; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P319, P363, P390, P403 + P233, P405, P406

Hydrochloric Acid 25%, AR — Code AR1270

Specifications

(Meets British Pharmacopoeia)

Assay (by acidimetry)	25%	min.	Bromide (Br)	1.0	ppm max.
Appearance	Passes test		Sulfate (SO_4)	1.0	ppm max.
Color (APHA)	10	max.	Sulfite (SO_3)	1.0	ppm max.
Residue after Ignition	5.0	ppm max.	Heavy metals (as Pb)	1.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.	Arsenic (As)	0.01	ppm max.
Free Chlorine (Cl)	1.0	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1270-G500ML	Glass	500 mL
AR1270-G1L	Glass	1 L
AR1270-G2.5L	Glass	2.5 L
AR1270-G4L	Glass	4 L

Cat No.	Package	Size
AR1270-P2.5L	Plastic	2.5 L
AR1270-P4L	Plastic	4 L
AR1270-P20L	Plastic	20 L
AR1270-P200L	Plastic	200 L

HYDROCHLORIC ACID 30%

HCl	FW. 36.46	Density =	1.15 kg/L
CAS-No.	7647-01-0	Melting Point	-50 °C
UN No.	1789	Boiling Point	90 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	II

Danger

GHS: H290, H314, H335; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P319, P363, P390, P403 + P233, P405, P406

Hydrochloric Acid 30%, AR — Code AR1076

Specifications

Assay (by acidimetry)	30%	min.	Bromide (Br)	1.0	ppm max.
Appearance	Passes test		Sulfate (SO_4)	1.0	ppm max.
Color (APHA)	10	max.	Sulfite (SO_3)	1.0	ppm max.
Residue after Ignition	5.0	ppm max.	Heavy metals (as Pb)	1.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.	Arsenic (As)	0.01	ppm max.
Free Chlorine (Cl)	1.0	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1076-G500ML	Glass	500 mL
AR1076-G1L	Glass	1 L
AR1076-G2.5L	Glass	2.5 L
AR1076-G4L	Glass	4 L

Cat No.	Package	Size
AR1076-P2.5L	Plastic	2.5 L
AR1076-P4L	Plastic	4 L
AR1076-P20L	Plastic	20 L
AR1076-P200L	Plastic	200 L

HYDROCHLORIC ACID 32%

HCl	FW. 36.46	Density =	1.16 kg/L
CAS-No.	7647-01-0	Melting Point	-43 °C
UN No.	1789	Boiling Point	80 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	II

Danger

GHS: H290, H314, H335; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P319, P363, P390, P403 + P233, P405, P406

Hydrochloric Acid 32%, AR — Code AR1104

Specifications

Assay (by acidimetry)	32%	min.	Bromide (Br)	1.0	ppm max.
Appearance	Passes test		Sulfate (SO_4)	1.0	ppm max.
Color (APHA)	10	max.	Sulfite (SO_3)	1.0	ppm max.
Residue after Ignition	5.0	ppm max.	Heavy metals (as Pb)	1.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.	Arsenic (As)	0.01	ppm max.
Free Chlorine (Cl)	1.0	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size	Cat No.	Package	Size
AR1104-G500ML	Glass	500 mL	AR1104-P2.5L	Plastic	2.5 L
AR1104-G1L	Glass	1 L	AR1104-P4L	Plastic	4 L
AR1104-G2.5L	Glass	2.5 L	AR1104-P20L	Plastic	20 L
AR1104-G4L	Glass	4 L	AR1104-P200L	Plastic	200 L

Hydrochloric Acid 32%, RCI Premium — Code RP1104

Specifications

Assay (by acidimetry)	32%	min.	Chromium (Cr)	0.00001%	max.
Appearance of solution	Passes test		Cobalt (Co)	0.000001%	max.
Color (APHA)	10	max.	Copper (Cu)	0.000002%	max.
Residue after ignition	0.0003%	max.	Gold (Au)	0.00001%	max.
Extractable Organic Substance	0.0005%	max.	Iron (Fe)	0.00001%	max.
Free Chlorine (as Cl)	0.0001%	max.	Lead (Pb)	0.000001%	max.
Ammonium (NH_4)	0.0001%	max.	Magnesium (Mg)	0.00003%	max.
Bromide (Br)	0.001%	max.	Manganese (Mn)	0.000002%	max.
Phosphate (PO_4)	0.00005%	max.	Mercury (Hg)	0.0000005%	max.
Sulfate (SO_4)	0.00005%	max.	Molybdenum (Mo)	0.000002%	max.
Sulfite (SO_3)	0.00008%	max.	Nickel (Ni)	0.000005%	max.
Aluminium (Al)	0.00001%	max.	Potassium (K)	0.00003%	max.
Heavy metal (as Pb)	0.00001%	max.	Sodium (Na)	0.00003%	max.
Arsenic and Antimony (as As)	0.0000005%	max.	Strontium (Sr)	0.000002%	max.
Barium (Ba)	0.00002%	max.	Tin (Sn)	0.00003%	max.
Boron (B)	0.000005%	max.	Titanium (Ti)	0.00001%	max.
Cadmium (Cd)	0.000001%	max.	Zinc (Zn)	0.000002%	max.
Calcium (Ca)	0.00003%	max.			

Cat No.	Package	Size	Cat No.	Package	Size
RP1104-G500ML	Glass	500 ML	RP1104-P2.5L	Plastic	2.5 L
RP1104-G1L	Glass	1 L	RP1104-P4L	Plastic	4 L
RP1104-G2.5L	Glass	2.5 L	RP1104-P20L	Plastic	20 L
RP1104-G4L	Glass	4 L	RP1104-P200L	Plastic	200 L

HYDROCHLORIC ACID 35%

HCl	FW. 36.46	Density =	1.17 kg/L
CAS-No.	7647-01-0	Melting Point	-34 °C
UN No.	1789	Boiling Point	64 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	II

GHS: H290, H314, H335; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P319, P363, P390, P403 + P233, P405, P406

Danger

Hydrochloric Acid 35%, AR — Code AR1105

Specifications

Assay (by acidimetry)	35%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.
Free Chlorine (Cl)	1.0	ppm max.

Bromide (Br)	1.0	ppm max.
Sulfate (SO_4)	1.0	ppm max.
Sulfite (SO_3)	1.0	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1105-G500ML	Glass	500 mL
AR1105-G1L	Glass	1 L
AR1105-G2.5L	Glass	2.5 L
AR1105-G4L	Glass	4 L

Cat No.	Package	Size
AR1105-P2.5L	Plastic	2.5 L
AR1105-P4L	Plastic	4 L
AR1105-P20L	Plastic	20 L
AR1105-P200L	Plastic	200 L

HYDROCHLORIC ACID 36%

HCl	FW. 36.46	Density =	1.18 kg/L
CAS-No.	7647-01-0	Melting Point	-32 °C
UN No.	1789	Boiling Point	58 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	II

GHS: H290, H314, H335; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P319, P363, P390, P403 + P233, P405, P406

Danger

Hydrochloric Acid 36%, AR — Code AR1106

Specifications

Assay (by acidimetry)	36%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.
Free Chlorine (Cl)	1.0	ppm max.
Bromide (Br)	1.0	ppm max.
Sulfate (SO_4)	1.0	pm max.

Sulfite (SO_3)	1.0	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1106-G500ML	Glass	500 mL
AR1106-G1L	Glass	1 L
AR1106-G2.5L	Glass	2.5 L
AR1106-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1106-G4L	Glass	4 L
AR1106-P4L	Plastic	4 L
AR1106-P20L	Plastic	20 L
AR1106-P200L	Plastic	200 L

Hydrochloric Acid 36%, RCI Premium — Code RP1106

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	36.5 - 38.0%	
Appearance of solution	Passes test	
Color (APHA)	10	max.
Residue after ignition	3	ppm max.
Extractable Organic Substance	5	ppm max.
Free Chlorine (as Cl)	1	ppm max.
Ammonium (NH_4)	1	ppm max.
Bromide (Br)	10	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	0.8	ppm max.
Aluminium (Al)	0.1	ppm max.
Heavy metal (as Pb)	0.1	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.2	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.3	ppmmax.

Chromium (Cr)	0.1	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.02	ppm max.
Gold (Au)	0.1	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.01	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.02	ppm max.
Mercury (Hg)	0.005	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.3	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
RP1106-G500ML	Glass	500 mL
RP1106-G1L	Glass	1 L
RP1106-G2.5L	Glass	2.5 L
RP1106-G4L	Glass	4 L

Cat No.	Package	Size
RP1106-P2.5L	Plastic	2.5 L
RP1106-P4L	Plastic	4 L
RP1106-P20L	Plastic	20 L
RP1106-P200L	Plastic	200 L

HYDROCHLORIC ACID 37%

HCl	FW. 36.46	Density =	1.19 kg/L
CAS-No.	7647-01-0	Melting Point	-30 °C
UN No.	1789	Boiling Point	51 °C
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	II

Danger

GHS: H290, H314, H335; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P319, P363, P390, P403 + P233, P405, P406

Hydrochloric Acid 37%, AR — Code AR1107

Specifications

Assay (by acidimetry)	37%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Ammonium (NH_4)	3.0	ppm max.
Free Chlorine (Cl)	1.0	ppm max.
Bromide (Br)	1.0	ppm max.
Sulfate (SO_4)	1.0	ppm max.

Sulfite (SO_3)	1.0	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1107-G500ML	Glass	500 mL
AR1107-G1L	Glass	1 L
AR1107-G2.5L	Glass	2.5 L
AR1107-G4L	Glass	4 L

Cat No.	Package	Size
AR1107-P2.5L	Plastic	2.5 L
AR1107-P4L	Plastic	4 L
AR1107-P20L	Plastic	20 L
AR1107-P200L	Plastic	200 L

Hydrochloric Acid 37%, RCI Premium — Code RP1107

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	37%	min.
Appearance of solution	Passes test	
Color (APHA)	10	max.
Residue after ignition	3	ppm max.
Extractable Organic Substance	5	ppm max.
Free Chlorine (as Cl)	1	ppm max.
Ammonium (NH_4)	1	ppm max.
Bromide (Br)	10	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	0.8	ppm max.
Aluminium (Al)	0.1	ppm max.
Heavy metal (as Pb)	0.1	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.2	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.2	ppm max.

Chromium (Cr)	0.1	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.02	ppm max.
Gold (Au)	0.1	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.01	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.02	ppm max.
Mercury (Hg)	0.005	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.3	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
RP1107-G500ML	Glass	500 mL
RP1107-G1L	Glass	1 L
RP1107-G2.5L	Glass	2.5 L
RP1107-G4L	Glass	4 L

Cat No.	Package	Size
RP1107-P2.5L	Plastic	2.5 L
RP1107-P4L	Plastic	4 L
RP1107-P20L	Plastic	20 L
RP1107-P200L	Plastic	200 L

Hydrochloric Acid 37%, Semig — Code SM1107

Specifications

Assay (by acidimetry)	36.5 - 38.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Ammonium (NH_4)	1	ppm max.
Free Chlorine (Cl)	1	ppm max.
Bromide (Br)	10	ppm max.
Phosphate (PO_4)	0.05	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	0.8	ppm max.
Extractable Organic Substance	5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.3	ppm max.
Antimony (Sb)	0.005	ppm max.
Arsenic (As)	0.005	ppm max.

Boron (B)	0.1	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.3	ppm max.
Nickel (Ni)	0.03	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.3	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Cat No.	Package	Size
SM1107-G500ML	Glass	500 mL
SM1107-G1L	Glass	1 L
SM1107-G2.5L	Glass	2.5 L
SM1107-G4L	Glass	4 L

Cat No.	Package	Size
SM1107-P2.5L	Plastic	2.5 L
SM1107-P4L	Plastic	4 L
SM1107-P20L	Plastic	20 L
SM1107-P200L	Plastic	200 L

Hydrochloric Acid 37%, Electropure — Code EP1107

Specifications

Assay (by acidimetry)	36.5 - 38.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Ammonium (NH_4)	2	ppm max.
Bromide (Br)	10	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	1	ppm max.
Aluminium (Al)	0.05	ppm max.
Antimony (Sb)	0.01	ppm max.
Arsenic (As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.01	ppm max.
Bismuth (Bi)	0.05	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.05	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.05	ppm max.

Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.05	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.02	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.1	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.3	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.05	ppm max.

Cat No.	Package	Size
EP1107-G500ML	Glass	500 mL
EP1107-G1L	Glass	1 L
EP1107-G2.5L	Glass	2.5 L
EP1107-G4L	Glass	4 L

Cat No.	Package	Size
EP1107-P2.5L	Plastic	2.5 L
EP1107-P4L	Plastic	4 L
EP1107-P20L	Plastic	20 L
EP1107-P200L	Plastic	200 L

Hydrochloric Acid 37%, VLSI — Code VL1107

Specifications

Assay (by acidimetry)	36.5 - 38.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	2	ppm max.
Ammonium (NH_4)	1	ppm max.
Free Chlorine (Cl)	0.5	ppm max.
Bromide (Br)	10	ppm max.
Phosphate (PO_4)	0.05	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Sulfite (SO_3)	0.5	ppm max.
Aluminium (Al)	20	ppb max.
Antimony (Sb)	1	ppb max.
Arsenic (As)	1	ppb max.
Barium (Ba)	5	ppb max.
Beryllium (Be)	1	ppb max.
Bismuth (Bi)	5	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	1	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	1	ppb max.
Cobalt (Co)	1	ppb max.
Copper (Cu)	1	ppb max.
Gallium (Ga)	1	ppb max.
Germanium (Ge)	5	ppb max.

Gold (Au)	1	ppb max.
Indium (In)	1	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	1	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	1	ppb max.
Nickel (Ni)	1	ppb max.
Platinum (Pt)	1	ppb max.
Potassium (K)	20	ppb max.
Silver (Ag)	5	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	1	ppb max.
Thallium (Tl)	1	ppb max.
Tin (Sn)	5	ppb max.
Titanium (Ti)	10	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	20	ppb max.
Zirconium (Zr)	1	ppb max.
Particle/ml		
0.5 µm and greater	250	max.
1.0 µm and greater	10	max.

Cat No.	Package	Size
VL1107-G500ML	Glass	500 mL
VL1107-G1L	Glass	1 L
VL1107-G2.5L	Glass	2.5 L
VL1107-G4L	Glass	4 L

Cat No.	Package	Size
VL1107-P2.5L	Plastic	2.5 L
VL1107-P4L	Plastic	4 L
VL1107-P20L	Plastic	20 L
VL1107-P200L	Plastic	200 L

Hydrochloric Acid 37%, Pharma — Code BP1107

Specifications

(Meets Ph.Eur, USP/NF, JP, ACS)

Assay (by acidimetry)	37.0 - 38.0%	min.
Appearance	Clear, colorless, fuming liquid	
Appearance of solution	Clear and colorless	
Identity	Passes test	
Color (APHA)	10	max.
Solubility	Passes test	
Residue on Evaporation	0.005%	max.
Residue after Ignition	0.0005%	max.
Bromide (Br)	50	ppm max.
Bromide or Iodide	Passes test	
Ammonium (NH_4)	3	ppm max.

Free Chlorine (Cl)	1	ppm max.
Free Bromine or Chlorine	Passes test	
Sulfate (SO_4)	1	ppm max.
Sulfite (SO_3)	1	ppm max.
Extractable organic substances	5	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.04	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
BP1107-G500ML	Glass	500 mL
BP1107-G1L	Glass	1 L
BP1107-G2.5L	Glass	2.5 L
BP1107-G4L	Glass	4 L

Cat No.	Package	Size
BP1107-P2.5L	Plastic	2.5 L
BP1107-P4L	Plastic	4 L
BP1107-P20L	Plastic	20 L
BP1107-P200L	Plastic	200 L

HYDROCHLORIC ACID 0.1 - 1.0 N

HCl	FW. 36.46		
CAS-No.	7647-01-0		
UN No.	1789		
EC No.	231-595-7	EC-Index-No	017-002-01-X
Class:	8	Packing Group:	III
GHS:	H290; P234, P390, P406		

Warning

Hydrochloric acid, 0.1N — Code GN1108

Specifications

Appearance	Clear, colorless solution
Normality	0.1000N ± 0.0005N
	Traceable to NIST

Cat No.	Package	Size
GN1108-P1L	Plastic	1 L
GN1108-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1108-P4L	Plastic	4 L
GN1108-P20L	Plastic	20 L

Hydrochloric acid, 0.2N — Code GN1109

Specifications

Appearance	Clear, colorless solution
Normality	0.2000N ± 0.0005N
	Traceable to NIST

Cat No.	Package	Size
GN1109-P1L	Plastic	1 L
GN1109-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1109-P4L	Plastic	4 L
GN1109-P20L	Plastic	20 L

Hydrochloric acid, 0.5N — Code GN1110

Specifications

Appearance	Clear, colorless solution
Normality	0.5000N ± 0.0005N
	Traceable to NIST

Cat No.	Package	Size
GN1110-P1L	Plastic	1 L
GN1110-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1110-P4L	Plastic	4 L
GN1110-P20L	Plastic	20 L

Hydrochloric acid, 1.0N — Code GN1111

Specifications

Appearance	Clear, colorless solution
Normality	1.000N ± 0.005N
	Traceable to NIST

Cat No.	Package	Size
GN1111-P1L	Plastic	1 L
GN1111-P2.5L	Plastic	2.5 L
GN1111-P4L	Plastic	4 L
GN1111-P20L	Plastic	20 L

HYDROCHLORIC ACID 4.0 N

HCl FW. 36.46
CAS-No. 7647-01-0
UN No. 1789
EC No. 231-595-7 EC-Index-No 017-002-01-X
Class: 8 Packing Group: III

Warning

GHS: H290, H315, H319, H335; P234, P261, P264, P271 , P280, P302 + P352, P304 + P340, P305 + P351 + P338, P319, P332 + P317, P337 + P317, P362+P364, P390, P403 + P233, P405, P406

Hydrochloric acid, 4.0N — Code GN1112

Specifications

Appearance	Clear, colorless solution
Normality	4.000N ± 0.005N
	Traceable to NIST

Cat No.	Package	Size
GN1112-P1L	Plastic	1 L
GN1112-P2.5L	Plastic	2.5 L
GN1112-P4L	Plastic	4 L
GN1112-P20L	Plastic	20 L

HYDROFLUORIC ACID 49%

HF	FW. 20.01	Density	1.15 kg/L
CAS-No.	7664-39-3	Melting point	~-36 °C
UN No.	1790	Boiling point	~106 °C
EC No.	231-634-8	EC-Index-No	009-003-00-1
Class:	8 (6.1)	Packing Group:	II

Danger

GHS: H300 + H310 + H330, H314; P260, P262, P264, P270, P271, P280, P284, P301 + P310, P301 + P330 + P331, P302 + P352, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P310, P330, P361 + P364, P363, P403 + P233, P405

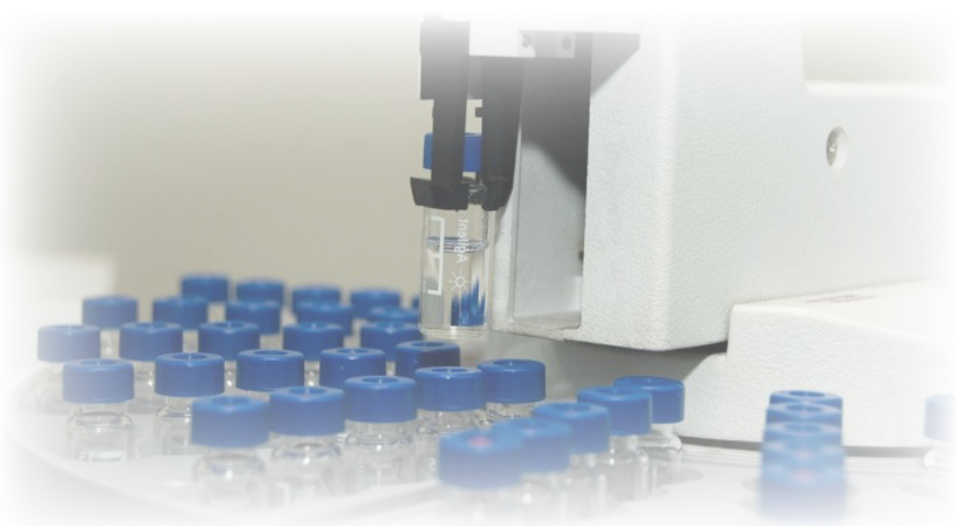
Hydrofluoric Acid 49%, AR — Code AR1337

Specifications

Assay	48.5 - 49.5%		Iron (Fe)	300	ppb max.
Color (APHA)	10	max.	Lead (Pb)	50	ppb max.
Fluosilicic acid (H_2SiF_6)	100	ppm max.	Lithium (Li)	50	ppb max.
Residue after Ignition	5	ppm max.	Magnesium (Mg)	200	ppb max.
Chloride (Cl)	5	ppm max.	Manganese (Mn)	50	ppb max.
Phosphate (PO_4)	1	ppm max.	Molybdenum (Mo)	50	ppb max.
Sulfate and Sulfite (as SO_4)	5	ppm max.	Nickel (Ni)	50	ppb max.
Heavy metals (as Pb)	500	ppb max.	Potassium (K)	100	ppb max.
Aluminium (Al)	100	ppb max.	Silver (Ag)	50	ppb max.
Arsenic (As)	50	ppb max.	Sodium (Na)	200	ppb max.
Barium (Ba)	50	ppb max.	Strontium (Sr)	50	ppb max.
Beryllium (Be)	20	ppb max.	Tantalum (Ta)	10	ppb max.
Bismuth (Bi)	50	ppb max.	Thallium (Tl)	20	ppb max.
Boron (B)	50	ppb max.	Tin (Sn)	50	ppb max.
Cadmium (Cd)	20	ppb max.	Titanium (Ti)	100	ppb max.
Calcium (Ca)	500	ppb max.	Vanadium (V)	50	ppb max.
Chromium (Cr)	20	ppb max.	Zinc (Zn)	100	ppb max.
Cobalt (Co)	50	ppb max.	Zirconium (Zr)	50	ppb max.
Copper (Cu)	50	ppb max.			

Cat No.	Package	Size
AR1337-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1337-P4L	Plastic	4 L



Hydrofluoric Acid 49%, Electropure — Code EP1337

Specifications

Assay	48.5 - 49.5%	
Color (APHA)	10	max.
Fluosilicic acid (H_2SiF_6)	50	ppm max.
Residue after Ignition	5	ppm max.
Chloride (Cl)	5	ppm max.
Nitrate (NO_3)	3	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Sulfate and Sulfite (as SO_4)	1	ppm max.
Heavy metals (as Pb)	100	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	10	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	10	ppb max.
Germanium (Ge)	20	ppb max.
Gold (Au)	10	ppb max.

Iron (Fe)	100	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	100	ppb max.
Manganese (Mn)	10	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	10	ppb max.
Niobium (Nb)	10	ppb max.
Potassium (K)	20	ppb max.
Silicon (Si)	1000	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	10	ppb max.
Tantalum (Ta)	10	ppb max.
Thallium (Tl)	10	ppb max.
Tin (Sn)	20	ppb max.
Titanium (Ti)	50	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	20	ppb max.
Zirconium (Zr)	10	ppb max.
Particle/ml		
0.5 µm and greater	100	max.

Cat No.	Package	Size
EP1337-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
EP1337-P4L	Plastic	4 L

HYDROGEN PEROXIDE 30% SOLUTION

H_2O_2	FW. 34.01	Density =	1.11 kg/L
CAS-No.	7722-84-1	Melting Point	~ -26 °C
UN No.	2014	Boiling Point	106.2 °C
EC No.	231-765-0	EC-Index-No	008-003-00-9
Class:	5.1 (8)	Packing Group:	II

Danger

GHS: H272, H302 + H332, H318; P210, P220, P261, P264, P270, P271, P280, P301 + P317, P304 + P340, P305 + P354 + P338

Hydrogen Peroxide 30% Solution, AR — Code AR1496

Specifications

Assay (by titration)	30.0%	min.	Copper (Cu)	0.01	ppm max.
Color (APHA)	10	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.005%	max.	Lead (Pb)	0.01	ppm max.
Chloride (Cl)	0.0005%	max.	Nickel (Ni)	0.05	ppm max.
Sulfate (SO_4)	0.0005%	max.	Zinc (Zn)	0.05	ppm max.
Heavy metal (as Pb)	0.0001%	max.	Zirconium (Zr)	0.01	ppm max.
Chromium (Cr)	0.05	ppm max.			

Cat No.	Package	Size
AR1496-P20L	Plastic	20 kg

HYDROGEN PEROXIDE 50% SOLUTION

H_2O_2	FW. 34.01	Density =	1.19 kg/L
CAS-No.	7722-84-1	Melting Point	~ -52 °C
UN No.	2014	Boiling Point	114 °C
EC No.	231-765-0	EC-Index-No	008-003-00-9
Class:	5.1 (8)	Packing Group:	II

Danger

GHS: H272, H302 + H332, H314; H335, P210, P220, P260, P264, P270, P271, P280, P301 + P317, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P330, P363, P403 + P233, P405

Hydrogen Peroxide 50% Solution, AR — Code AR1275

Specifications

Assay (by titration)	50.0%	min.	Copper (Cu)	0.01	ppm max.
Color (APHA)	10	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.005%	max.	Lead (Pb)	0.01	ppm max.
Chloride (Cl)	0.0005%	max.	Nickel (Ni)	0.05	ppm max.
Sulfate (SO_4)	0.0005%	max.	Zinc (Zn)	0.05	ppm max.
Heavy metal (as Pb)	0.0001%	max.	Zirconium (Zr)	0.01	ppm max.
Chromium (Cr)	0.05	ppm max.			

Cat No.	Package	Size
AR1275-P20L	Plastic	20 kg

IODINE (RESUBLIMED)

I_2	FW. 253.81	Density =	4.93 g/cm^3
CAS-No.	7553-56-2	Melting Point	114 °C
UN No.	3495	Boiling Point	185 °C
EC No.	231-442-4	EC-Index-No	053-001-00-3
Class:	8 (6.1)	Packing Group:	III

Danger

GHS: H312 + H332, H315, H319, H335, H372, H400; P261, P264, P270, P271, P273, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P319, P332 + P317, P337 + P317, P362 + P364, P391, P403 + P233, P405

Iodine (Resublimed), AR — Code AR1113

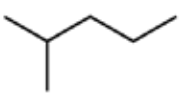
Specifications

Description	Grayish-black crystalline flakes /granules with a metallic luster	
Assay	99.5%	min.
Melting Point	About 113 °C	

Non-volatile matter (105 °C)	0.005%	max.
Chloride & Bromide (as Cl)	0.005%	max.
Sulfate (SO_4)	0.002%	max.

Cat No.	Package	Size
AR1113-G500G	Glass	500 g

ISOHEXANE



$(CH_3)_2CH(CH_2)_2CH_3$	FW. 86.18	Density =	0.660 kg/L
CAS-No.	92112-69-1	Melting Point	< -50 °C
UN No.	1208	Boiling Point	53 - 63 °C
EC No.	295-570-2	EC-Index-No	601-007-00-7
Class	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H411; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Isohexane, AR — Code AR1394

Specifications

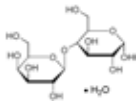
Assay (by GC. : Total C_6H_{14} Isomeres)	95.0%	min.
Color (APHA)	20	max.
Appearance	Clear and colorless	
Water (by Coulometry)	0.02%	max.

Residue on Evaporation	0.001%	max.
Total Sulfur	0.0001%	max.
Benzene	0.01%	max.

Cat No.	Package	Size
AR1394-G500ML	Glass	500 mL
AR1394-G1L	Glass	1 L

Cat No.	Package	Size
AR1394-G2.5L	Glass	2.5 L
AR1394-G4L	Glass	4 L

LACTOSE MONOHYDRATE



$C_{12}H_{22}O_{11}.H_2O$ FW. 360.32
CAS-No. 10039-26-6 Melting Point 202 °C

Lactose Monohydrate, Pharma — Code BP1449

Specifications (Meets Ph.Eur, BP, USP/NF)

Appearance	White or almost white, crystalline powder	
Identity	Passes test	
Appearance of solution	Clear and not more intensely coloured than reference solution BY_7	
Solubility	Passes test	
Clearity and color of solution	Passes test	
Acidity or Alkalinity	Passes test	
Specific optical rotation	+ 54.4 to +55.9	
Absorbance (Proteins and UV-absorbing impurities)	5	ppm max.
Heavy metals (as Pb)	5	ppm max.
Water	4.5 - 5.5%	
Residue after Ignition	0.1%	max.
Loss on drying	0.5%	max.
Microbiological purity (Total aerobic microbial count, TAMC)	100	CFU/g max.
Microbiological purity (Total yeast and mould count, TYMC)	50	CFU/g max.
Escherichia coli (absent in 1 g)	Passes test	
Salmonella ssp (absent 10 g)	Passes test	

Cat No.	Package	Size
BP1449-P1L	Plastic	500 g
BP1449-P2.5L	Plastic	1 kg

Cat No.	Package	Size
BP1449-P4L	Plastic	5 kg
BP1449-P20L	Plastic	25 kg

MAGNESIUM CHLORIDE HEXAHYDRATE

$MgCl_2 \cdot 6H_2O$

$MgCl_2.6H_2O$	FW. 203.30	Density =	1.57 g/cm^3
CAS-No.	7791-18-6	Melting Point	~ 117 °C
		Boiling Point	1412 °C
EC No.	232-094-6		

Magnesium Chloride Hexahydrate, AR — Code AR1242

Specifications

Assay	98.0%	min.
pH of 5% water (25°C)	5.0 - 6.5	
Insoluble in water	0.005%	max.
Total Nitrogen (N)	0.005%	max.
Phosphate (PO_4)	0.001%	max.

Sulfate (SO_4)	0.005%	max.
Heavy metals (as Pb)	0.0005%	max.
Barium (Ba)	0.005%	max.
Calcium (Ca)	0.05%	max.
Iron (Fe)	0.0005%	max.

Cat No.	Package	Size
AR1242-P500G	Plastic	500 g
AR1242-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1242-P5KG	Plastic	5 kg
AR1242-P25KG	Plastic	25 kg

Magnesium Chloride Hexahydrate, Pharma — Code BP1242

Specifications

(Meets Ph.Eur, BP, USP/NF)

Assay	98.0%	min.
Appearance	Colorless crystals, hygroscopic	
Identity	Passes test	
Appearance of solution	Clear and colorless	
Solubility	Passes test	
Acidity or Alkalinity	Passes test	
pH of a 5% solution at 25°C	4.5 - 7.0	
Water	51.0 - 55.0%	
Insoluble matter	0.005%	max.

Bromide (Br)	0.05%	max.
Sulfate (SO_4)	0.005%	max.
Heavy metals (as Pb)	0.001%	max.
Aluminium (Al)	0.0001%	max.
Arsenic (As)	0.0002%	max.
Barium (Ba)	Passes test	
Calcium (Ca)	0.01%	max.
Iron (Fe)	0.001%	max.
Potassium (K)	0.05%	max.

Cat No.	Package	Size
BP1242-P500G	Plastic	500 g
BP1242-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1242-P5KG	Plastic	5 kg
BP1245-P25KG	Plastic	25 kg

MAGNESIUM OXIDE

MgO

MgO	FW. 40.30	Density =	3.58 g/cm^3
CAS-No.	1309-48-4	Melting Point	2800 °C
		Boiling Point	3600 °C
EC No.	215-171-9		

Magnesium Oxide, AR — Code AR1244

Specifications

Assay	97.0%	min.	Chloride (Cl)	0.1%	max.
Appearance of Solution	Passes test		Sulfate (SO_4)	1.0%	max.
Loss on Ignition (900°C)	8.0%	max.	Heavy metals (as Pb)	0.002%	max.
Substances soluble in water	2.0%	max.	Arsenic (As)	0.0003%	max.
Substances insoluble in CH_3COOH	0.1%	max.	Iron (Fe)	0.05%	max.

Cat No.	Package	Size
AR1244-P500G	Plastic	500 g

Cat No.	Package	Size
AR1244-P20KG	Plastic	20 kg

MAGNESIUM SULFATE ANHYDROUS

$MgSo_4$

$MgSO_4$	FW. 120.37	Density =	2.66 g/cm^3
CAS-No.	7487-88-9	Melting Point	1124 °C
EC No.	231-298-2		

Magnesium Sulfate Anhydrous, AR — Code AR1308

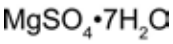
Specifications

Assay (after ignited)	99.0%	min.	Arsenic (As)	0.0003%	max.
pH (3 w/v% sol., 25 °C)	6.0 - 9.0		Calcium (Ca)	0.05%	max.
Chloride (Cl)	0.001%	max.	Iron (Fe)	0.001%	max.
Nitrate (NO_3)	Passes test		Lead (Pb)	0.001%	max.
Solubility in water	Passes test		Loss on Ignition	3.0%	max.

Cat No.	Package	Size
AR1308-P500G	Plastic	500 g

Cat No.	Package	Size
AR1308-P20KG	Plastic	20 kg

MAGNESIUM SULFATE HEPTAHYDRATE



$MgSO_4.7H_2O$	FW. 246.48	Density =	1.68 g/cm^3
CAS-No.	10034-99-8	Melting Point	1124 °C
EC No.	231-298-2		

Magnesium Sulfate Heptahydrate, AR — Code AR1114

Specifications

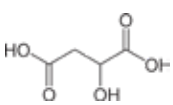
Description	Colorless Crystal	
Assay	99.5%	min.
pH (5% Water)	5.0 – 8.0	
Total Nitrogen (N)	0.002%	max.
Chloride (Cl)	0.0005%	max.
Heavy metals (as Pb)	0.0005%	max.

Calcium (Ca)	0.005%	max.
Iron (Fe)	0.0001%	max.
Potassium (K)	0.001%	max.
Manganese (Mn)	0.0005%	max.
Sodium (Na)	0.001%	max.

Cat No.	Package	Size
AR1114-P500G	Plastic	500 g
AR1114-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1114-P5KG	Plastic	5 kg
AR1114-P25KG	Plastic	25 kg

MALIC ACID



$C_4H_6O_5$	FW. 134.08	Density =	1.60 g/cm^3
CAS-No.	6915-15-7	Melting Point	127-132 °C
EC No.	230-022-8		
GHS:	H319; P264, P280, P305 + P351 + P338, P337 + P317		

Warning

DL-Malic Acid, AR — Code AR1284

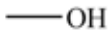
Specifications

Assay	99.0 - 100.5%	
Identification	Passes test	
Residue on Ignition	0.05%	max.
Moisture	0.3%	max.
Water-Insoluble Matter	0.1%	max.
Fumaric Acid	1.0%	max.
Maleic Acid	0.05%	max.

Sulfated ash	0.1%	max.
Heavy metals (as Pb)	5	ppm max.
Arsenic (As)	2	ppm max.
Copper (Cu)	50	ppm max.
Lead (Pb)	2	ppm max.
Mercury (Hg)	1	ppm max.
Zinc (Zn)	25	ppm max.

Cat No.	Package	Size
AR1284-P1KG	Plastic	1 kg

METHANOL



CH_3OH	FW. 32.04	Density =	0.790 kg/L
CAS-No.	67-56-1	Melting Point	-98 °C
UN No.	1230	Boiling Point	64.5 °C
EC No.	200-659-6	EC-Index-No	603-001-00-X
Class:	3 (6.1)	Packing Group:	II

Danger

GHS: H225, H301 + H311 + H331, H370; P210, P233, P240, P242, P243, P260, P264, P270, P271, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P308 + P316, P330, P361 + P364, P403 + P235, P405

Methanol, AR — Code AR1115

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.9%	min.	Residue on Evaporation	0.001%	max.
Appearance	Clear		Carbonyl Compounds (as CH_3CHO)	0.001%	max.
Color (APHA)	10	max.	Solubility in water	Passes test	
Water (by Coulometry)	0.05%	max.	Substances darkened by sulfuric acid	Passes test	
Acidity (mEq./g.)	0.0003	max.	Substances reducing permanganate	Passes test	
Alkalinity (mEq./g.)	0.0002	max.			

Cat No.	Package	Size
AR1115-G500ML	Glass	500 mL
AR1115-G1L	Glass	1 L
AR1115-G2.5L	Glass	2.5 L
AR1115-G4L	Glass	4 L

Cat No.	Package	Size
AR1115-P2.5L	Plastic	2.5 L
AR1115-P4L	Plastic	4 L
AR1115-P20L	Plastic	20 L
AR1115-P200L	Plastic	200 L

Methanol, RCI Premium

Code RP1115

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Appearance Clear		
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.001%	max.
Acetaldehyde (GC.)	0.001%	max.
Benzene (GC.)	0.001%	max.
Ethanol (GC.)	0.05%	max.
Carbonyl Compounds (as CH_3CHO)	0.001%	max.
Formaldehyde	0.001%	max.
Readily carbonizable substances	Passes test	
Solubility in water	Passes test	
Substances reducing permanganate	Passes test	
Chloride (Cl)	0.5	ppm max.
Sulfate (SO_4)	1	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.02	ppm max.

Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.01	ppm max.
Platinum (Pt)	0.05	ppm max.
Silver (Ag)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.02	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
RP1115-G500ML	Glass	500 mL
RP1115-G1L	Glass	1 L
RP1115-G2.5L	Glass	2.5 L
RP1115-G4L	Glass	4 L

Cat No.	Package	Size
RP1115-P2.5L	Plastic	2.5 L
RP1115-P4L	Plastic	4 L
RP1115-P20L	Plastic	20 L
RP1115-P200L	Plastic	200 L

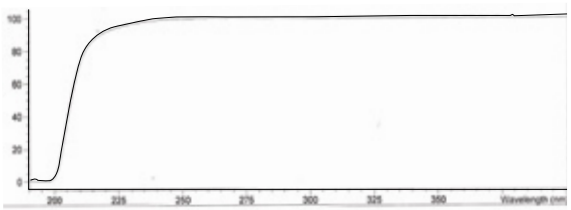
Methanol, HPLC — Code LC1115

Specifications

(Conforms to Reag. Ph.Eur / BP / USP)

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Acetaldehyde (GC.)	0.001%	max.
Acetone (GC.)	0.001%	max.
Carbonyl Compounds	0.001%	max.
Formaldehyde (GC.)	0.001%	max.
Solubility in water	Passes test	
Substances reducing permanganate	Passes test	
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	80%	min.
220 nm	70%	min.
210 nm	60%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



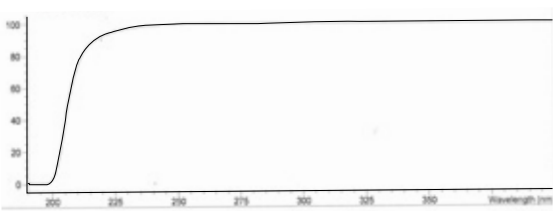
Cat No.	Package	Size
LC1115-G500ML	Glass	500 mL
LC1115-G1L	Glass	1 L
LC1115-G2.5L	Glass	2.5 L
LC1115-G4L	Glass	4 L

Methanol, HPLC Plus — Code LC1224

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Acetaldehyde (GC.)	0.001%	max.
Acetone (GC.)	0.001%	max.
Carbonyl Compounds	0.001%	max.
Formaldehyde (GC.)	0.001%	max.
Solubility in water	Passes test	
Substances reducing permanganate	Passes test	
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	80%	min.
220 nm	70%	min.
210 nm	60%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1224-G500ML	Glass	500 mL
LC1224-G1L	Glass	1 L
LC1224-G2.5L	Glass	2.5 L
LC1224-G4L	Glass	4 L

Methanol, Super Gradient for HPLC — Code SG1115

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Acetone (GC.)	0.001%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	75%	min.
210 nm	65%	min.
Gradient Specification		
at 230 nm	2.0	mAU max.
at 235 nm	2.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	0.5	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
SG1115-G500ML	Glass	500 mL
SG1115-G1L	Glass	1 L
SG1115-G2.5L	Glass	2.5 L
SG1115-G4L	Glass	4 L

Methanol, Ultrat Gradient for HPLC — Code SG1473

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Acetone (GC.)	0.001%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	75%	min.
210 nm	65%	min.
Gradient Specification		
at 230 nm	2.0	mAU max.
at 235 nm	2.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.5	ppb max.
Aluminium (Al)	20	ppb max.
Barium (Ba)	50	ppb max.
Cadmium (Cd)	50	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	50	ppb max.
Copper (Cu)	20	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	20	ppb max.
Potassium (K)	50	ppb max.
Sodium (Na)	100	ppb max.
Tin (Sn)	50	ppb max.
Zinc (Zn)	50	ppb max.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
SG1473-G500ML	Glass	500 mL
SG1473-G1L	Glass	1 L
SG1473-G2.5L	Glass	2.5 L
SG1473-G4L	Glass	4 L

Methanol, LC-MS

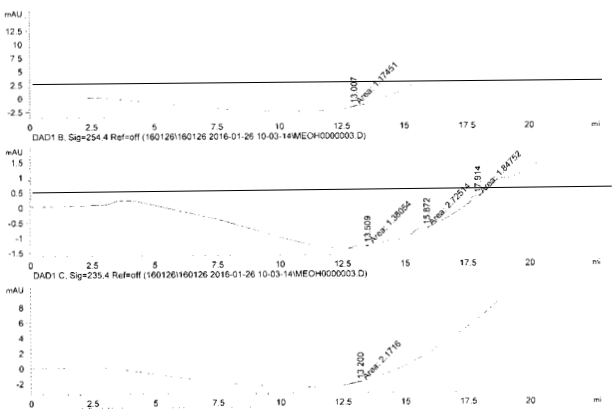
Code LM1115

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0003	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Acetone (GC.)	0.001%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	75%	min.
210 nm	65%	min.
Gradient Specification		
at 230 nm	2.0	mAU max.
at 235 nm	2.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.5	ppb max.
at 365 nm	0.5	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	20	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.

Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Sodium (Na)	20	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS	10	ppb max.
(ESI positive as Reserpine)		

Product passed through 0.1 micron final filter and bottled under inert gas.



Cat No.	Package	Size
LM1115-G500ML	Glass	500 mL
LM1115-G1L	Glass	1 L

Cat No.	Package	Size
LM1115-G2.5L	Glass	2.5 L
LM1115-G4L	Glass	4 L

Methanol, ULC-MS — Code UM1115

Specifications

Assay (by GC.)	99.98%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0001	max.
Residue on Evaporation	0.0001%	max.
Acetone (GC.)	0.001%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	75%	min.
210 nm	65%	min.
Gradient Specification		
at 220 nm	4.0	mAU max.
at 230 nm	2.0	mAU max.
at 235 nm	2.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.3	ppb max.
at 365 nm	0.3	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.

Bismuth (Bi)	10	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	20	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	20	ppb max.
Strontium (Sr)	10	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS	5	ppb max.
(ESI positive as Reserpine)		
Suitable for LC-MS	20	ppb max.
(ESI negative as Reserpine)		

Product passed through 0.03 micron final filter and bottled under inert gas.

Cat No.	Package	Size
UM1115-G500ML	Glass	500 mL
UM1115-G1L	Glass	1 L

Cat No.	Package	Size
UM1115-G2.5L	Glass	2.5 L
UM1115-G4L	Glass	4 L

Methanol, GC-MS — Code GM1115

Specifications

Assay (by GC.)	99.98%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0003	max.

Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Acetone (GC.)	0.001%	max.
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak,		
(retention range n-undecane to n-tetracontane)		

Cat No.	Package	Size
GM1115-G500ML	Glass	500 mL
GM1115-G1L	Glass	1 L

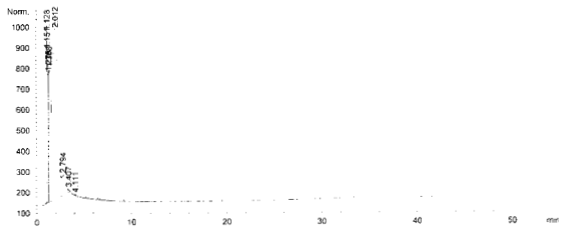
Cat No.	Package	Size
GM1115-G2.5L	Glass	2.5 L
GM1115-G4L	Glass	4 L

Methanol, Pesticide — Code PC1115

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Acetone (GC.)	0.001%	max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		

GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1115-G500ML	Glass	500 mL
PC1115-G1L	Glass	1 L

Cat No.	Package	Size
PC1115-G2.5L	Glass	2.5 L
PC1115-G4L	Glass	4 L

Methanol, LVI-GC — Code LV1115

Specifications

Assay (by GC.)	99.95%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Acetone (GC.)	0.001%	max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.05	mg/L max

Product passed through 0.1 micron final filter and bottled under inert gas..

Cat No.	Package	Size
LV1115-G500ML	Glass	500 mL
LV1115-G1L	Glass	1 L

Cat No.	Package	Size
LV1115-G2.5L	Glass	2.5 L
LV1115-G4L	Glass	4 L

Methanol, Purge and Trap — Code PT1115

Specifications

Assay (by GC.)	99.99%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Volatile Organic Compounds	Passes test	
All Aromatics	10	ppb max.
Acetone	50	ppb max.
Methyl Ethyl Ketone	50	ppb max.
Methyl Isoamyl Ketone	50	ppb max.

All other detectable ketones	50	ppb max.
Carbon Tetrachloride	50	ppb max.
Chloroform	50	ppb max.
Dichloromethane	50	ppb max.
All other detectable chlorohydrocarbons	50	ppb max.
Pentane	50	ppb max.
Hexane	50	ppb max.
Heptane	50	ppb max.
2,2,4-Trimethyl Pentane	50	ppb max.
All other detectable alkanes	50	ppb max.
All other detectable peaks (as Hexane)	50	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
PT1115-G500ML	Glass	500 mL
PT1115-G1L	Glass	1 L

Cat No.	Package	Size
PT1115-G2.5L	Glass	2.5 L
PT1115-G4L	Glass	4 L

Methanol, UV-IR/HPLC — Code IR1115

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Acetone (GC.)	0.001%	max.
UV Transmission Levels (%T)		
260 nm	98%	min.
250 nm	95%	min.
240 nm	90%	min.
230 nm	75%	min.
220 nm	55%	min.
210 nm	30%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1115-G500ML	Glass	500 mL
IR1115-G1L	Glass	1 L
IR1115-G2.5L	Glass	2.5 L
IR1115-G4L	Glass	4 L

Methanol, Anhydrous (20 ppm) — Code AH1117

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.002%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.01%	max.
Ethanol (GC.)	0.1%	max.

Cat No.	Package	Size
AH1117-G500ML	Glass	500 mL
AH1117-G1L	Glass	1 L
AH1117-G2.5L	Glass	2.5 L
AH1117-G4L	Glass	4 L

Methanol, Anhydrous (50 ppm) — Code AH1118

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.01%	max.
Ethanol (GC.)	0.1%	max.

Cat No.	Package	Size
AH1118-G500ML	Glass	500 mL
AH1118-G1L	Glass	1 L
AH1118-G2.5L	Glass	2.5 L
AH1118-G4L	Glass	4 L

Methanol, Anhydrous (100 ppm) — Code AH1116

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.

Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.01%	max.
Ethanol (GC.)	0.1%	max.

Cat No.	Package	Size
AH1116-G500ML	Glass	500 mL
AH1116-G1L	Glass	1 L

Cat No.	Package	Size
AH1116-G2.5L	Glass	2.5 L
AH1116-G4L	Glass	4 L

Methanol, Peptide Synthesis — Code PS1115

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.

Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	0.01%	max.
Ethanol (GC.)	0.1%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1115-G500ML	Glass	500 mL
PS1115-G1L	Glass	1 L

Cat No.	Package	Size
PS1115-G2.5L	Glass	2.5 L
PS1115-G4L	Glass	4 L

Methanol, Semig — Code SM1115

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.1	max.
Carbonyl Compounds	0.003%	max.
Solubility in water	Passes Test	
Residue on Evaporation	5	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Aluminium (Al)	0.1	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Boron (B)	0.1	ppm max.
Calcium (Ca)	0.1	ppm max.

Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.1	ppm max.
Gallium (Ga)	0.1	ppm max.
Gold (Au)	0.1	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.1	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.1	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Cat No.	Package	Size
SM1115-G500ML	Glass	500 mL
SM1115-G1L	Glass	1 L
SM1115-G2.5L	Glass	2.5 L
SM1115-G4L	Glass	4 L

Cat No.	Package	Size
SM1115-P2.5L	Plastic	2.5 L
SM1115-P4L	Plastic	4 L
SM1115-P20L	Plastic	20 L
SM1115-P200L	Plastic	200 L

Methanol, Electropure — Code EP1115

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.5	max.
Residue on Evaporation	5	ppm max.
Solubility in Water	Passes test	
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Heavy metals (as Pb)	100	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	20	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	50	ppb max.
Germanium (Ge)	50	ppb max.
Gold (Au)	20	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	10	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	50	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	50	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.

Cat No.	Package	Size
EP1115-G500ML	Glass	500 mL
EP1115-G1L	Glass	1 L
EP1115-G2.5L	Glass	2.5 L
EP1115-G4L	Glass	4 L

Cat No.	Package	Size
EP1115-P2.5L	Plastic	2.5 L
EP1115-P4L	Plastic	4 L
EP1115-P20L	Plastic	20 L
EP1115-P200L	Plastic	200 L

Methanol, Extropure — Code XP1115

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µEq./g.)	0.5	max.
Solubility in water	Passes test	
Residue on Evaporation	5	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Heavy metals (as Pb)	100	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	20	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	50	ppb max.
Germanium (Ge)	50	ppb max.
Gold (Au)	20	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	10	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	50	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	50	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Cat No.	Package	Size
XP1115-G500ML	Glass	500 mL
XP1115-G1L	Glass	1 L
XP1115-G2.5L	Glass	2.5 L
XP1115-G4L	Glass	4 L

Cat No.	Package	Size
XP1115-P2.5L	Plastic	2.5 L
XP1115-P4L	Plastic	4 L
XP1115-P20L	Plastic	20 L
XP1115-P200L	Plastic	200 L

Methanol, VLSI

Code VL1115

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.3	max.
Alkalinity (µtEq./g.)	0.5	max.
Solubility in Water	Passes test	
Residue on Evaporation	3	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	20	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	20	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	20	ppb max.
Germanium (Ge)	20	ppb max.

Gold (Au)	10	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	20	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	10	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	20	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	20	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.
Zirconium (Zr)	20	ppb max.
Particle/ml :		
0.5 µm and greater	30	max.
1.0 µm and greater	8	max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1115-G500ML	Glass	500 mL
VL1115-G1L	Glass	1 L
VL1115-G2.5L	Glass	2.5 L
VL1115-G4L	Glass	4 L

Cat No.	Package	Size
VL1115-P2.5L	Plastic	2.5 L
VL1115-P4L	Plastic	4 L
VL1115-P20L	Plastic	20 L
VL1115-P200L	Plastic	200 L

Methanol, Pharma

Code BP1115

Specifications

(Meets Ph.Eur, BP, USP/NF, ACS)

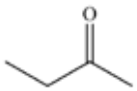
Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity	Passes test	
Color (APHA)	10 max.	
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Acidity or Alkalinity	Passes test	
Residue on Evaporation	0.0005%	max.
Acetone (GC.)	2	ppm max.
Benzene (GC.)	2	ppm max.
Ethanol (GC.)	2	ppm max.
Acetaldehyde (GC.)	0.001%	max.
Carbonyl Compounds (as CH_3CHO)	0.001%	max.
Formaldehyde (GC.)	0.001%	max.
Related substances (GC.)	Passes test	
Readily carbonizable substances	Passes test	
Readily oxidizable substances	Passes test	
Substances reducing permanganate (as O)	Passes test	
Substances darkened by sulfuric acid	Passes test	
Reducing substances	Passes test	
Solubility in water	Passes test	
Chloride (Cl)	0.5	ppm max.
Sulfate (SO_4)	1.0	ppm max.
UV Absorbance		
290 nm	0.01	AU max.
270 nm	0.02	AU max.
250 nm	0.05	AU max.
230 nm	0.15	AU max.

Heavy metals (as Pb)	1.0	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.02	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.01	ppm max.
Platinum (Pt)	0.05	ppm max.
Silver (Ag)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.02	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
BP1115-G500ML	Glass	500 mL
BP1115-G1L	Glass	1 L
BP1115-G2.5L	Glass	2.5 L
BP1115-G4L	Glass	4 L

Cat No.	Package	Size
BP1115-P2.5L	Plastic	2.5 L
BP1115-P4L	Plastic	4 L
BP1115-P20L	Plastic	20 L
BP1115-P200L	Plastic	200 L

METHYL ETHYL KETONE



$C_2H_5COCH_3$	FW. 72.11	Density =	0.805 kg/L
CAS-No.	78-93-3	Melting Point	-86 °C
UN No.	1193	Boiling Point	79.6 °C
EC No.	201-159-0	EC-Index-No	606-002-00-3
Class:	3	Packing Group:	II

Danger

GHS: H225, H319, H336, EUH066; P210, P233, P240 ,P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Methyl ethyl ketone, AR — Code AR1122

Specifications

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.1%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1122-G500ML	Glass	500 mL
AR1122-G1L	Glass	1 L
AR1122-G2.5L	Glass	2.5 L
AR1122-G4L	Glass	4 L

Cat No.	Package	Size
AR1122-P2.5L	Plastic	2.5 L
AR1122-P4L	Plastic	4 L
AR1122-P20L	Plastic	20 L
AR1122-P200L	Plastic	200 L

Methyl ethyl ketone, RCI Premium — Code RP1122

Specifications

Assay (by GC.)	99.5%	min.	Barium (Ba)	0.05	ppm max.
Identity (IR)	Passes test		Boron (B)	0.01	ppm max.
Appearance	Passes test		Cadmium (Cd)	0.02	ppm max.
Color (APHA)	10	max.	Calcium (Ca)	0.2	ppm max.
Water (by Coulometry)	0.05%	max.	Chromium (Cr)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Cobalt (Co)	0.01	ppm max.
Alkalinity (mEq./g.)	0.0002	max.	Copper (Cu)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Iron (Fe)	0.05	ppm max.
Acetone (GC.)	0.05%	max.	Lead (Pb)	0.05	ppm max.
2-Butanol (GC.)	0.05%	max.	Magnesium (Mg)	0.05	ppm max.
Methanol (GC.)	0.05%	max.	Manganese (Mn)	0.01	ppm max.
2-Methylpropan-2-ol (GC.)	0.1%	max.	Nickel (Ni)	0.01	ppm max.
Substances reducing permanganate (as O)	0.0003%	max.	Tin (Sn)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1122-G500ML	Glass	500 mL
RP1122-G1L	Glass	1 L
RP1122-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1122-G4L	Glass	4 L
RP1122-M25L	Metal	25 L
RP1122-M200L	Metal	200 L

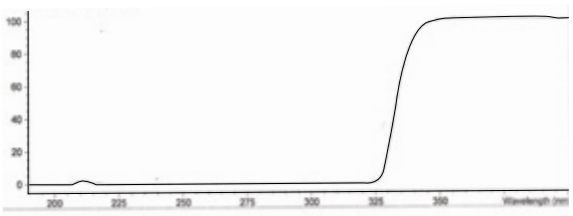
Methyl ethyl ketone, HPLC — Code LC1122

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
360 nm	99%	min.
350 nm	98%	min.
340 nm	85%	min.
335 nm	50%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1122-G500ML	Glass	500 mL
LC1122-G1L	Glass	1 L

Cat No.	Package	Size
LC1122-G2.5L	Glass	2.5 L
LC1122-G4L	Glass	4 L

Methyl ethyl ketone, Electropure — Code EP1122

Specifications

Assay (by GC.)	99.5%	min.
Water (by Coulometry)	0.05%	max.
Specific resistance (MΩ.cm)	10	min.
Free acid (as CH_3COOH)	20	ppm max.
Residue on Evaporation	5	ppm max.
Heavy metals (as Pb)	0.2	ppm max.
Aluminium (Al)	0.2	ppm max.
Antimony (Sb)	0.01	ppm max.
Arsenic (As)	0.01	ppm max.
Barium (Ba)	0.1	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.1	ppm max.

Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.2	ppm max.

Cat No.	Package	Size
EP1122-G500ML	Glass	500 mL
EP1122-G1L	Glass	1 L
EP1122-G2.5L	Glass	2.5 L

Cat No.	Package	Size
EP1122-G4L	Glass	4 L
EP1122-M25L	Metal	25 L
EP1122-M200L	Metal	200 L

Methyl ethyl ketone, Extropure — Code XP1122

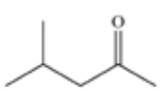
Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Water (by Coulometry)	0.05%	max.
Acidity (µ Eq./g.)	0.5	max.
Alkalinity (µ Eq./g.)	0.5	max.
Alcohol, ether and benzene miscibility	Complete	
Water Soluble Matter	Passes test	
Residue on Evaporation	5	ppm max.
Aldehyde (Formaldehyde)	20	ppm max.
Substances reducing permanganate (as O)	2	ppm max.
Heavy metals (as Pb)	1	ppm max.
Aluminium (Al)	100	ppb max.
Barium (Ba)	50	ppb max.
Boron (B)	20	ppb max.
Cadmium (Cd)	50	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	20	ppb max.
Iron (Fe)	100	ppb max.
Lead (Pb)	100	ppb max.
Magnesium (Mg)	100	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	20	ppb max.
Tin (Sn)	100	ppb max.
Zinc (Zn)	100	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Cat No.	Package	Size
XP1122-G500ML	Glass	500 mL
XP1122-G1L	Glass	1 L
XP1122-G2.5L	Glass	2.5 L
XP1122-G4L	Glass	4 L

Cat No.	Package	Size
XP1122-P2.5L	Plastic	2.5 L
XP1122-P4L	Plastic	4 L
XP1122-P20L	Plastic	20 L
XP1122-P200L	Plastic	200 L

METHYL ISOBUTYL KETONE



$(CH_3)_2CHCH_2COCH_3$

FW.	100.16	Density =	0.800 kg/L
CAS-No.	108-10-1	Melting Point	-84 °C
UN No.	1245	Boiling Point	116-118 °C
EC No.	203-550-1	EC-Index-No	606-004-00-4
Class:	3	Packing Group:	II

Danger

GHS: H225, H319, H332, H335, EUH066; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Methyl Isobutyl Ketone, AR — Code AR1217

Specifications

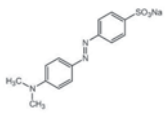
(Meet A.C.S. Specifications)

Assay (by GC.)	98.5%	min.
Color (APHA)	15	max.
Water (by Coulometry)	0.1%	max.
Acidity (mEq./g.)	0.002	max.
Residue on Evaporation	0.005%	max.

Cat No.	Package	Size
AR1217-G500ML	Glass	500 mL
AR1217-G1L	Glass	1 L
AR1217-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1217-G4L	Glass	4 L
AR1217-M25L	Metal	25 L
AR1217-M200L	Metal	200 L

METHYL ORANGE INDICATOR



$C_{14}H_{14}N_3SO_3Na$	FW. 327.34		
CAS-No.	547-58-0	Melting Point	> 300 °C
UN No.	3143		
EC No.	208-925-3		
Class:	6.1	Packing Group:	III
GHS:	H301; P264, P270, P301 + P316, P330, P405		

Danger

Methyl Orange Indicator, AR — Code AR1253

Specifications

Appearance	Orange, fine crystalline powder
Solubility in water	Passes test
Sensitivity for pH change	Passes test
TLC test	Passes test
Loss on drying	3% max.

Cat No.	Package	Size
AR1253-G25G	Glass	25 g
AR1253-G50G	Glass	50 g

Cat No.	Package	Size
AR1253-G100G	Glass	100 g

Methyl Orange Indicator, AR — Code AR1522

Specifications

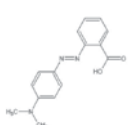
(Meet A.C.S. Specifications)

Appearance	Orange-yellow solid
Clarity of solution	Passes test
Visual transition interval	From pH 3.2 (pink) to pH 4.4 (yellow)

Cat No.	Package	Size
AR1522-G25G	Glass	25 g
AR1522-G50G	Glass	50 g

Cat No.	Package	Size
AR1522-G100G	Glass	100 g

METHYL RED INDICATOR



$C_{15}H_{15}N_3O_2$	FW. 269.31		
CAS-No.	493-52-7	Melting Point	181-182 °C
EC No.	207-776-1		

Methyl Red Indicator, AR — Code AR1254

Specifications

Appearance	Red to brown powder
Solubility in ethanol	Passes test
TLC test	Passes test
Moisture	5% max.

Cat No.	Package	Size
AR1254-G25G	Glass	25 g
AR1254-G50G	Glass	50 g

Cat No.	Package	Size
AR1254-G100G	Glass	100 g

Methyl Red Indicator, AR — Code AR1521

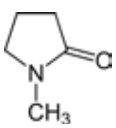
Specifications

(Meet A.C.S. Specifications)

Appearance	Red to brown solid
Clarity of alcohol solution	Passes test
Visual transition interval	From pH 4.2 (pink) to pH 6.2 (yellow)

Cat No.	Package	Size
AR1521-G25G	Glass	25 g
AR1521-G50G	Glass	50 g
AR1521-G100G	Glass	100 g

n-METHYL-2-PYRROLIDONE



C_5H_9NO FW. 99.13
CAS-No. 872-50-4
EC No. 212-828-1

Density = 1.030 kg/L
Melting Point -24 °C
Boiling Point 202 °C
EC-Index-No 606-021-00-7

Danger

GHS: H315, H319, H335, H360D; P203, P261, P264 + P265, P271, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364, P403 + P233, P405

n-Methyl-2-Pyrrolidone, AR — Code AR1123

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	50	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.005%	max.
Free amine (as CH_3NH_2)	0.01%	max.
Chloride (Cl)	1	ppm max.

Cat No.	Package	Size
AR1123-G500ML	Glass	500 mL
AR1123-G1L	Glass	1 L
AR1123-G2.5L	Glass	2.5 L
AR1123-G4L	Glass	4 L
AR1123-M25L	Metal	25 L
AR1123-M200L	Metal	200 L

n-Methyl-2-Pyrrolidone, RCI Premium — Code RP1123

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	50 max.	
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.005%	max.
Free amine (as CH_3NH_2)	0.01%	max.
Chloride (Cl)	1	ppm max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

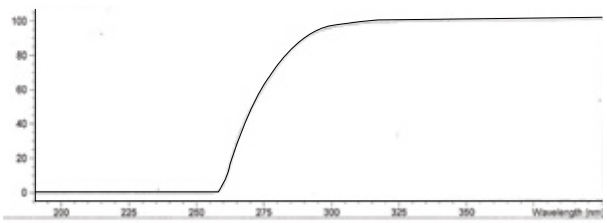
Cat No.	Package	Size
RP1123-G500ML	Glass	500 mL
RP1123-G1L	Glass	1 L
RP1123-G2.5L	Glass	2.5 L
RP1123-G4L	Glass	4 L
RP1123-M25L	Metal	25 L
RP1123-M200L	Metal	200 L

n-Methyl-2-Pyrrolidone, HPLC — Code LC1123

Specifications

Assay (by GC.)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
350 nm	99%	min.
330 nm	95%	min.
310 nm	80%	min.
290 nm	70%	min.
280 nm	50%	min.
Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1123-G500ML	Glass	500 mL
LC1123-G1L	Glass	1 L

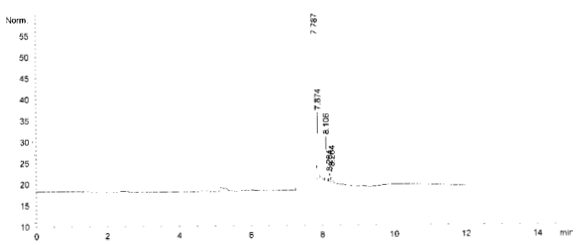
Cat No.	Package	Size
LC1123-G2.5L	Glass	2.5 L
LC1123-G4L	Glass	4 L

n-Methyl-2-Pyrrolidone, For GC Analysis — Code GC1123

Specifications

Description	A clear, colorless liquid	
Assay (by GC.)	99.7%	min.
Weight per ml (at 20 °C)	1.030 - 1.033 g	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
350 nm	99%	min.
330 nm	95%	min.
310 nm	80%	min.
290 nm	70%	min.
280 nm	50%	min.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
GC1123-G500ML	Glass	500 mL
GC1123-G1L	Glass	1 L

Cat No.	Package	Size
GC1123-G2.5L	Glass	2.5 L

n-Methyl-2-Pyrrolidone, For Headspace GC Analysis — Code HS1123

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-269	nm
UV Transmission Levels (%T)		
> 350 nm	98%	min.
320 nm	90%	min.
300 nm	85%	min.
285 nm	60%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	1	ppm max.
Class 2 Solvents	10	ppm max.
Class 3 Solvents	50	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.
Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1123-G500ML	Glass	500 mL
HS1123-G1L	Glass	1 L
HS1123-G2.5L	Glass	2.5 L

n-Methyl-2-Pyrrolidone, GC-HS Plus for Headspace GC Analysis — Code HS1516

Specifications

Assay (by GC.)	99.80%	min.
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Formic Acid and Acetic Acid	Not detected	
UV cutoff wavelength	190-269	nm
UV Transmission Levels (%T)		
> 350 nm	98%	min.
320 nm	90%	min.
300 nm	85%	min.
285 nm	60%	min.
Residual solvent (GC/HS) according to ICH		
Class 1 Solvents	0.5	ppm max.
Benzene	Absence of peak	
Class 2 and Class 3 Solvents :		
Acetone	1	ppm max.
Acetonitrile	0.5	ppm max.
n-Butanol	1	ppm max.
Butyl Acetate	1	ppm max.
tert-Butyl Methyl Ether	1	ppm max.
Cyclohexane	1	ppm max.
Dichloromethane	0.5	ppm max.
1,4-Dioxane	0.5	ppm max.
Ethanol	1	ppm max.
Ethyl Acetate	1	ppm max.
Ethylbenzene	1	ppm max.
n-Heptane	1	ppm max.
n-Hexane	0.5	ppm max.
Isopropyl Acetate	1	ppm max.
Methanol	1	ppm max.
Methylcyclohexane	1	ppm max.
2-Propanol	1	ppm max.
n-Propanol	1	ppm max.
Pyridine	1	ppm max.
Tetrahydrofuran	0.5	ppm max.
Toluene	1	ppm max.
o-Xylene	1	ppm max.
m-Xylene	1	ppm max.
p-Xylene	1	ppm max.
Other Class 2 Solvents	5	ppm max.
Other Class 3 Solvents	25	ppm max.

Suitable as solvent for the analysis of residual solvent of ICH classes 1,2 and 3 according to Ph Eur and USP.
Product passed through 0.2 micron final filter.

Cat No.	Package	Size
HS1516-G500ML	Glass	500 mL
HS1516-G1L	Glass	1 L
HS1516-G2.5L	Glass	2.5 L
HS1516-G4L	Glass	4 L

n-Methyl-2-Pyrrolidone, Anhydrous (100 ppm) — Code AH1124

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.

Cat No.	Package	Size
AH1124-G500ML	Glass	500 mL
AH1124-G1L	Glass	1 L
AH1124-G2.5L	Glass	2.5 L
AH1124-G4L	Glass	4 L

n-Methyl-2-Pyrrolidone, Peptide Synthesis — Code PS1123

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1123-G500ML	Glass	500 mL
PS1123-G1L	Glass	1 L
PS1123-G2.5L	Glass	2.5 L
PS1123-G4L	Glass	4 L

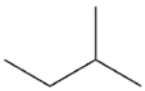
n-Methyl-2-Pyrrolidone, Extropure Plus — Code XP1278

Specifications

Assay (by GC.)	99.8%	min.
Color (APHA)	50	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Free amine (as CH_3NH_2)	0.01%	max.
Bromide (Br)	0.01	ppm max.
Chloride (Cl)	0.05	ppm max.
Fluoride (F)	0.01	ppm max.
Nitrate (NO_3)	0.03	ppm max.
Nitrite (NO_2)	0.03	ppm max.
Sulfate (SO_4)	0.03	ppm max.
Phosphate (PO_4)	0.01	ppm max.
pH value	8.5 - 10	
Aluminium (Al)	20	ppb max.
Barium (Ba)	10	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	20	ppb max.
Magnesium (Mg)	50	ppb max.
Manganese (Mn)	10	ppb max.
Nickel (Ni)	10	ppb max.
Tin (Sn)	20	ppb max.
Zinc (Zn)	20	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	
Particle/ml :		
0.5 µm and greater	60	max.
1.0 µm and greater	15	max.

Cat No.	Package	Size
XP1278-G500ML	Glass	500 mL
XP1278-G1L	Glass	1 L
XP1278-G2.5L	Glass	2.5 L
XP1278-G4L	Glass	4 L
XP1278-M25L	Metal	25 L
XP1278-M200L	Metal	200 L

2-METHYLBUTANE 95%



$CH_3CH_2CH(CH_3)_2$	FW. 72.15	Density =	0.619 kg/L
CAS-No.	78-78-4	Melting Point	-160 °C
UN No.	1265	Boiling Point	27.9 °C
EC No.	201-142-8	EC-Index-No	601-006-00-1
Class:	3	Packing Group:	I

Danger

GHS: H224, H304, H336, H411, EUH066; P210, P233, P240, P242, P243, P261, P271, P273, P280, P301 + P316, P303 + P361 + P353, P304 + P340, P319, P331, P391, P403 + P235, P405

2-Methylbutane 95%, AR — Code AR1119

Specifications

Assay (by GC.)	95.0%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.02%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1119-G500ML	Glass	500 mL
AR1119-G1L	Glass	1 L
AR1119-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1119-G4L	Glass	4 L
AR1119-M25L	Metal	25 L
AR1119-M200L	Metal	200 L

2-Methylbutane 95%, RCI Premium — Code RP1119

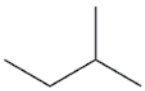
Specifications

Assay (by GC.)	95.0%	min.	Chromium (Cr)	0.01	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.02%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Magnesium (Mg)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Manganese (Mn)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Nickel (Ni)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.	Tin (Sn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1119-G500ML	Glass	500 mL
RP1119-G1L	Glass	1 L
RP1119-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1119-G4L	Glass	4 L
RP1119-M25L	Metal	25 L
RP1119-M200L	Metal	200 L

2-METHYLBUTANE 99%



$CH_3CH_2CH(CH_3)_2$	FW. 72.15	Density =	0.619 kg/L
CAS-No.	78-78-4	Melting Point	-160 °C
UN No.	1265	Boiling Point	27.9 °C
EC No.	201-142-8	EC-Index-No	601-006-00-1
Class:	3	Packing Group:	I

Danger

GHS: H224, H304, H336, H411, EUH066; P210, P233, P240, P242, P243, P261, P271, P273, P280, P301 + P316, P303 + P361 + P353, P304 + P340, P319, P331, P391, P403 + P235, P405

2-Methylbutane 99%, AR — Code AR1120

Specifications

Assay (by GC.)	99.0%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.02%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1120-G500ML	Glass	500 mL
AR1120-G1L	Glass	1 L
AR1120-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1120-G4L	Glass	4 L
AR1120-M25L	Metal	25 L
AR1120-M200L	Metal	200 L

2-Methylbutane 99%, RCI Premium — Code RP1120

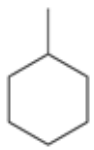
Specifications

Assay (by GC.)	99.0%	min.	Chromium (Cr)	0.01	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.02%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Magnesium (Mg)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Manganese (Mn)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Nickel (Ni)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.	Tin (Sn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1120-G500ML	Glass	500 mL
RP1120-G1L	Glass	1 L
RP1120-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1120-G4L	Glass	4 L
RP1120-M25L	Metal	25 L
RP1120-M200L	Metal	200 L

METHYLCYCLOHEXANE



$C_6H_{11}CH_3$	FW. 98.19	Density =	0.769 kg/L
CAS-No.	108-87-2	Melting Point	-126 °C
UN No.	2296	Boiling Point	100.9 °C
EC No.	203-624-3	EC-Index-No	601-018-00-7
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P312, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Methylcyclohexane, AR — Code AR1121

Specifications

Assay (by GC.)	98.0%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.05%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1121-G500ML	Glass	500 mL
AR1121-G1L	Glass	1 L
AR1121-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1121-G4L	Glass	4 L
AR1121-M25L	Metal	25 L
AR1121-M200L	Metal	200 L

Methylcyclohexane, RCI Premium — Code RP1121

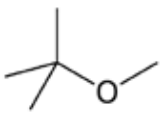
Specifications

Assay (by GC.)	99.0%	min.	Chromium (Cr)	0.01	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.05%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Magnesium (Mg)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Manganese (Mn)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Nickel (Ni)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.	Tin (Sn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1121-G500ML	Glass	500 mL
RP1121-G1L	Glass	1 L
RP1121-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1121-G4L	Glass	4 L
RP1121-M25L	Metal	25 L
RP1121-M200L	Metal	200 L

METHYL-t-BUTYL ETHER



$CH_3OC(CH_3)_3$	FW. 88.15	Density =	0.740 kg/L
CAS-No.	1634-04-4	Melting Point	-108.6 °C
UN No.	2398	Boiling Point	55.3 °C
EC No.	216-653-1	EC-Index-No	603-181-00-X
Class:	3	Packing Group:	II

Danger

GHS: H225, H315; P210, P233, P240, P242, P243, P264, P280, P302 + P352, P303 + P361 + P353, P332 + P317, P362 + P364, P403 + P235

Methyl-t-Butyl Ether, AR — Code AR1125

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Color (APHA)	10	max.	Residue on Evaporation	0.001%	max.
Water (by Coulometry)	0.05%	max.	Peroxides (as H_2O_2)	1 ppm	max.

Cat No.	Package	Size
AR1125-G500ML	Glass	500 mL
AR1125-G1L	Glass	1 L
AR1125-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1125-G4L	Glass	4 L
AR1125-M25L	Metal	25 L
AR1125-M200L	Metal	200 L

Methyl-t-Butyl Ether, RCI Premium — Code RP1125

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.	Chromium (Cr)	0.01	ppm max.
Identity (IR)	Passes test		Cobalt (Co)	0.01	ppm max.
Water (by Coulometry)	0.03%	max.	Copper (Cu)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Peroxides (as H_2O_2)	1	ppm max.	Magnesium (Mg)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.	Manganese (Mn)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Nickel (Ni)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Tin (Sn)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.	Zinc (Zn)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.			

Cat No.	Package	Size
RP1125-G500ML	Glass	500 mL
RP1125-G1L	Glass	1 L
RP1125-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1125-G4L	Glass	4 L
RP1125-M25L	Metal	25 L
RP1125-M200L	Metal	200 L

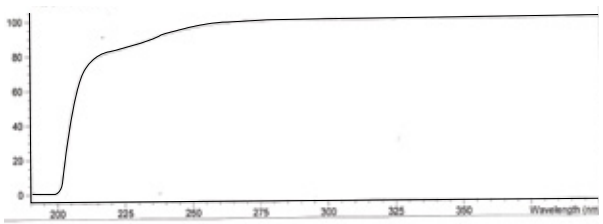
Methyl-t-Butyl Ether, HPLC — Code LC1125

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Peroxide (as H_2O_2)	1	ppm max.
UV Transmission Levels (%T)		
280 nm	99%	min.
270 nm	98%	min.
260 nm	90%	min.
255 nm	85%	min.
240 nm	60%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1125-G500ML	Glass	500 mL
LC1125-G1L	Glass	1 L

Cat No.	Package	Size
LC1125-G2.5L	Glass	2.5 L
LC1125-G4L	Glass	4 L

Methyl-t-Butyl-Ether, LVI-GC — Code LV1125

Specifications

Assay (by GC.)	99.80%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Peroxide (as H_2O_2)	1	ppm max.

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas..

Cat No.	Package	Size
LV1125-G500ML	Glass	500 mL
LV1125-G1L	Glass	1 L

Cat No.	Package	Size
LV1125-G2.5L	Glass	2.5 L
LV1125-G4L	Glass	4 L

Methyl-t-Butyl Ether, Peptide Synthesis — Code PS1125

Specifications

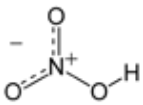
Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.

Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Peroxide (as H_2O_2)	0.0005%	max.
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1125-G500ML	Glass	500 mL
PS1125-G1L	Glass	1 L

Cat No.	Package	Size
PS1125-G2.5L	Glass	2.5 L
PS1125-G4L	Glass	4 L

NITRIC ACID 5%



HNO_3	FW. 63.01	Density =	1.03 kg/L
CAS-No.	7697-37-2	Melting Point	-2.7 °C
UN No.	2031	Boiling Point	101 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8	Packing Group:	II

Danger

GHS: H290,H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Nitric Acid 5%, AR — Code AR1129

Specifications

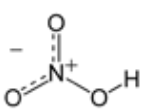
Assay (by acidimetry)	5.0%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	3.0	ppm max.
Chloride (Cl)	0.1	ppm max.

Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.2	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.004	ppm max.
Iron (Fe)	0.1	ppm max.

Cat No.	Package	Size
AR1129-G500ML	Glass	500 mL
AR1129-G1L	Glass	1 L
AR1129-G2.5L	Glass	2.5 L
AR1129-G4L	Glass	4 L

Cat No.	Package	Size
AR1129-P2.5L	Plastic	2.5 L
AR1129-P4L	Plastic	4 L
AR1129-P20KG	Plastic	20 kg

NITRIC ACID 10%



HNO_3	FW. 63.01	Density =	1.05 kg/L
CAS-No.	7697-37-2	Melting Point	-6.4 °C
UN No.	2031	Boiling Point	102 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8	Packing Group:	II

Danger

GHS: H290,H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Nitric Acid 10%, AR — Code AR1130

Specifications

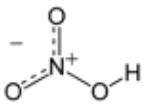
Assay (by acidimetry)	10%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Chloride (Cl)	0.1	ppm max.

Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.004	ppm max.
Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1129-G500ML	Glass	500 mL
AR1129-G1L	Glass	1 L
AR1129-G2.5L	Glass	2.5 L
AR1129-G4L	Glass	4 L

Cat No.	Package	Size
AR1129-P2.5L	Plastic	2.5 L
AR1129-P4L	Plastic	4 L
AR1129-P20KG	Plastic	20 kg

NITRIC ACID 25%



HNO_3	FW. 63.01	Density =	1.15 kg/L
CAS-No.	7697-37-2	Melting Point	-26.4 °C
UN No.	2031	Boiling Point	105.8 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8	Packing Group:	II

Danger

GHS: H290,H314, H331, EUH071; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

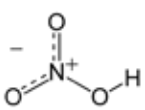
Nitric Acid 25%, AR — Code AR1406

Specifications

Assay (by acidimetry)	25%	min.	Phosphate (PO_4)	0.2	ppm max.
Appearance	Passes test		Sulfate (SO_4)	0.5	ppm max.
Color (APHA)	10	max.	Heavy metals (as Pb)	0.1	ppm max.
Residue after Ignition	5.0	ppm max.	Arsenic (As)	0.004	ppm max.
Chloride (Cl)	0.1	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1406-P23KG	Plastic	23 kg

NITRIC ACID 30%



HNO_3	FW. 63.01	Density =	1.18 kg/L
CAS-No.	7697-37-2	Melting Point	-36.3 °C
UN No.	2031	Boiling Point	107.2 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8	Packing Group:	II

Danger

GHS: H290,H314, H331, EUH071; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 30%, AR — Code AR1131

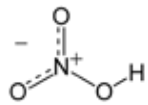
Specifications

Assay (by acidimetry)	29.0 - 31.0%		Phosphate (PO_4)	0.2	ppm max.
Appearance	Passes test		Sulfate (SO_4)	0.5	ppm max.
Color (APHA)	10	max.	Heavy metals (as Pb)	0.1	ppm max.
Residue after Ignition	5.0	ppm max.	Arsenic (As)	0.004	ppm max.
Chloride (Cl)	0.1	ppm max.	Iron (Fe)	0.2	ppm max.

Cat No.	Package	Size
AR1131-G500ML	Glass	500 mL
AR1131-G1L	Glass	1 L
AR1131-G2.5L	Glass	2.5 L
AR1131-G4L	Glass	4 L

Cat No.	Package	Size
AR1131-P2.5L	Plastic	2.5 L
AR1131-P4L	Plastic	4 L
AR1131-P20KG	Plastic	20 kg
AR1131-P25KG	Plastic	25 kg

NITRIC ACID 50%



HNO_3	FW. 63.01	Density =	1.31 kg/L
CAS-No.	7697-37-2	Melting Point	-19.2 °C
UN No.	2031	Boiling Point	114.7 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8	Packing Group:	II

Danger

GHS: H290,H314, H331, EUH071; P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 50%, AR — Code AR1132

Specifications

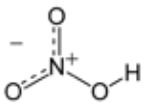
Assay (by acidimetry)	49.5 - 50.5%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.

Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.004	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Iron (Fe)	0.2	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.05	ppm max.

Cat No.	Package	Size
AR1132-G500ML	Glass	500 mL
AR1132-G1L	Glass	1 L
AR1132-G2.5L	Glass	2.5 L
AR1132-G4L	Glass	4 L

Cat No.	Package	Size
AR1132-P2.5L	Plastic	2.5 L
AR1132-P4L	Plastic	4 L
AR1132-P20KG	Plastic	30 kg

NITRIC ACID 65%



HNO_3	FW. 63.01	Density =	1.39 kg/L
CAS-No.	7697-37-2	Melting Point	-29.1 °C
UN No.	2031	Boiling Point	119.6 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8 (5.1)	Packing Group:	II

Danger

GHS: H272, H290,H314, H331, EUH071; P210, P220, P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 65%, AR — Code AR1133

Specifications

Assay (by acidimetry)	65%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.004	ppm max.

(Meet A.C.S. Specifications)

Cadmium (Cd)	0.01	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.05	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1133-G500ML	Glass	500 mL
AR1133-G1L	Glass	1 L
AR1133-G2.5L	Glass	2.5 L
AR1133-G4L	Glass	4 L
AR1133-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1133-P4L	Plastic	4 L
AR1133-P20L	Plastic	20 L
AR1133-P20KG	Plastic	20 kg
AR1133-P25KG	Plastic	25 kg
AR1133-P30KG	Plastic	30 kg

Nitric Acid 65%, RCI Premium — Code RP1133

Specifications

Assay (by acidimetry)	65.0%	min.
Appearance	Passes test	
Identity	Passes test	
Color (APHA)	10	max.
Residue after ignition	3	ppm max.
Chloride (Cl)	0.1	ppm max.
Silicate (SiO_2)	0.5	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Heavy metal (as Pb)	0.1	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic (As)	0.004	ppm max.
Barium (Ba)	0.01	ppm max.
Beryllium (Be)	0.01	ppm max.
Bismuth (Bi)	0.02	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.05	ppm max.

(Meet A.C.S. Specifications)

Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.05	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.01	ppm max.
Lithium (Li)	0.01	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Molybdenum (Mo)	0.01	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.1	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.01	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.01	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.02	ppm max.
Vanadium (V)	0.01	ppm max.
Zinc (Zn)	0.02	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
RP1133-G500ML	Glass	500 mL
RP1133-G1L	Glass	1 L
RP1133-G2.5L	Glass	2.5 L
RP1133-G4L	Glass	4 L

Cat No.	Package	Size
RP1133-P2.5L	Plastic	2.5 L
RP1133-P4L	Plastic	4 L
RP1133-P20L	Plastic	20 L
RP1133-P200L	Plastic	200 L

Nitric Acid 65% (Low Mercury), Electropure — Code EP1134

Specifications

Assay (by acidimetry)	65.0%	min.
Mercury (Hg)	0.0000003%	max
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	2	ppm max.
Chloride (Cl)	0.08	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.1	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.01	ppm max.
Antimony (Sb)	0.005	ppm max.
Arsenic (As)	0.005	ppm max.
Barium (Ba)	0.005	ppm max.
Beryllium (Be)	0.001	ppm max.
Bismuth (Bi)	0.005	ppm max.
Boron (B)	0.005	ppm max.
Cadmium (Cd)	0.001	ppm max.
Calcium (Ca)	0.05	ppm max.
Chromium (Cr)	0.005	ppm max.
Cobalt (Co)	0.001	ppm max.
Copper (Cu)	0.001	ppm max.
Gallium (Ga)	0.001	ppm max.
Germanium (Ge)	0.005	ppm max.
Gold (Au)	0.005	ppm max.
Indium (In)	0.001	ppm max.
Iron (Fe)	0.08	ppm max.
Lead (Pb)	0.005	ppm max.
Lithium (Li)	0.001	ppm max.
Magnesium (Mg)	0.01	ppm max.
Manganese (Mn)	0.001	ppm max.
Molybdenum (Mo)	0.001	ppm max.
Nickel (Ni)	0.005	ppm max.
Platinum (Pt)	0.001	ppm max.
Potassium (K)	0.005	ppm max.
Silver (Ag)	0.001	ppm max.
Sodium (Na)	0.05	ppm max.
Strontium (Sr)	0.001	ppm max.
Tantalum (Ta)	0.002	ppm max.
Thallium (Tl)	0.001	ppm max.
Tin (Sn)	0.002	ppm max.
Titanium (Ti)	0.001	ppm max.
Vanadium (V)	0.001	ppm max.
Zinc (Zn)	0.01	ppm max.
Zirconium (Zr)	0.001	ppm max.

Cat No.	Package	Size
EP1134-G500ML	Glass	500 mL
EP1134-G1L	Glass	1 L

Cat No.	Package	Size
EP1134-G2.5L	Glass	2.5 L

Nitric Acid 65%, Semig — Code SM1133

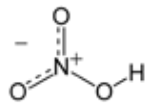
Specifications

Assay (by acidimetry)	65.0%	min.
Color (APHA)	10	max.
Chloride (Cl)	0.08	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.1	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.3	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.3	ppm max.

Cat No.	Package	Size
SM1133-G500ML	Glass	500 mL
SM1133-G1L	Glass	1 L
SM1133-G2.5L	Glass	2.5 L
SM1133-G4L	Glass	4 L

Cat No.	Package	Size
SM1133-P2.5L	Plastic	2.5 L
SM1133-P4L	Plastic	4 L
SM1133-P30KG	Plastic	30 kg
SM1133-P200L	Plastic	200 L

NITRIC ACID 69%



HNO_3	FW. 63.01	Density =	1.41 kg/L
CAS-No.	7697-37-2	Melting Point	-41 °C
UN No.	2031	Boiling Point	119.9 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8 (5.1)	Packing Group:	II

Danger

GHS: H272, H290,H314, H331, EUH071; P210, P220, P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 69%, Ultrapure — Code UP1137

Specifications

Assay (by acidimetry)	69.0 – 70.0%	
Color (APHA)	10	max.
Chloride (Cl)	0.00002%	max.
Total Phosphorus (P)	0.000001%	max.
Total Sulfur (S)	0.00003%	max.
Aluminium (Al)	1	ppb max.
Antimony (Sb)	0.5	ppb max.
Arsenic (As)	0.5	ppb max.
Barium (Ba)	0.1	ppb max.
Beryllium (Be)	0.1	ppb max.
Bismuth (Bi)	0.1	ppb max.
Boron (B)	1	ppb max.
Cadmium (Cd)	0.5	ppb max.
Calcium (Ca)	1	ppb max.
Cerium (Ce)	0.1	ppb max.
Cesium (Cs)	0.1	ppb max.
Chromium (Cr)	1	ppb max.
Cobalt (Co)	0.5	ppb max.
Copper (Cu)	0.5	ppb max.
Dysprosium (Dy)	0.1	ppb max.
Erbium (Er)	0.1	ppb max.
Europium (Eu)	0.1	ppb max.
Gadolinium (Gd)	0.1	ppb max.
Gallium (Ga)	0.1	ppb max.
Germanium (Ge)	0.1	ppb max.
Gold (Au)	0.1	ppb max.
Hafnium (Hf)	0.1	ppb max.
Holmium (Ho)	0.1	ppb max.
Indium (In)	0.1	ppb max.
Iron (Fe)	1	ppb max.
Lanthanum (La)	0.1	ppb max.
Lead (Pb)	0.1	ppb max.
Lithium (Li)	0.1	ppb max.
Lutetium (Lu)	0.1	ppb max.
Magnesium (Mg)	1	ppb max.

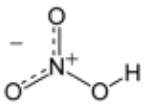
For Trace Metal Analysis

Manganese (Mn)	0.1	ppb max.
Mercury (Hg)	0.1	ppb max.
Molybdenum (Mo)	0.1	ppb max.
Neodymium (Nd)	0.1	ppb max.
Nickel (Ni)	0.5	ppb max.
Niobium (Nb)	0.1	ppb max.
Palladium (Pd)	0.5	ppb max.
Platinum (Pt)	0.5	ppb max.
Potassium (K)	1	ppb max.
Praseodymium (Pr)	0.1	ppb max.
Rhenium (Re)	0.1	ppb max.
Rhodium (Rh)	0.5	ppb max.
Rubidium (Rb)	0.1	ppb max.
Ruthenium (Ru)	0.5	ppb max.
Samarium (Sm)	0.1	ppb max.
Scandium (Sc)	0.1	ppb max.
Selenium (Se)	1	ppb max.
Silver (Ag)	0.1	ppb max.
Sodium (Na)	1	ppb max.
Strontium (Sr)	0.1	ppb max.
Tellur (Te)	0.1	ppb max.
Terbium (Tb)	0.1	ppb max.
Thallium (Tl)	0.1	ppb max.
Thorium (Th)	0.1	ppb max.
Thulium (Tm)	0.1	ppb max.
Tin (Sn)	0.5	ppb max.
Titanium (Ti)	0.5	ppb max.
Tungsten (W)	0.1	ppb max.
Urenium (U)	0.1	ppb max.
Vanadium (V)	0.5	ppb max.
Ytterbium (Yb)	0.1	ppb max.
Yttrium (Y)	0.1	ppb max.
Zinc (Zn)	0.5	ppb max.
Zirconium (Zr)	0.1	ppb max.

Cat No.	Package	Size
UP1137-P1L	Plastic	1 L

Cat No.	Package	Size

NITRIC ACID 70%



HNO_3	FW. 63.01	Density =	1.41 kg/L
CAS-No.	7697-37-2	Melting Point	-41 °C
UN No.	2031	Boiling Point	119.9 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8 (5.1)	Packing Group:	II

Danger

GHS: H272, H290,H314, H331, EUH071; P210, P220, P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 70%, AR — Code AR1137

Specifications

Assay (by acidimetry)	69.0 - 70.0 %	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	4.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.

(Meet A.C.S. Specifications)

Heavy metals (as Pb)	0.1	ppm max.
Arsenic (As)	0.004	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Iron (Fe)	0.2	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.05	ppm max.

Cat No.	Package	Size
AR1137-G500ML	Glass	500 mL
AR1137-G1L	Glass	1 L
AR1137-G2.5L	Glass	2.5 L
AR1137-G4L	Glass	4 L

Cat No.	Package	Size
AR1137-P2.5L	Plastic	2.5 L
AR1137-P4L	Plastic	4 L
AR1137-P30KG	Plastic	30 kg
AR1137-P200L	Plastic	200 L

Nitric Acid 70%, RCI Premium — Code RP1137

Specifications

Assay (by acidimetry)	69.0 - 70.0 %	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after ignition	0.0004%	max.
Chloride (Cl)	0.00001%	max.
Silicate (SiO_2)	0.00005%	max.
Sulfate (SO_4)	0.00005%	max.
Phosphate (PO_4)	0.00002%	max.
Heavy metal (as Pb)	0.00001%	max.
Aluminium (Al)	0.00001%	max.
Arsenic (As)	0.0000004%	max.
Barium (Ba)	0.000005%	max.
Boron (B)	0.000005%	max.
Cadmium (Cd)	0.000002%	max.
Calcium (Ca)	0.00002%	max.
Chromium (Cr)	0.000005%	max.

(Meet A.C.S. Specifications)

Cobalt (Co)	0.000001%	max.
Copper (Cu)	0.000002%	max.
Gold (Au)	0.00001%	max.
Iron (Fe)	0.00001%	max.
Lead (Pb)	0.000005%	max.
Magnesium (Mg)	0.00001%	max.
Manganese (Mn)	0.000001%	max.
Mercury (Hg)	0.0000005%	max.
Molybdenum (Mo)	0.000002%	max.
Nickel (Ni)	0.000003%	max.
Potassium (K)	0.00002%	max.
Sodium (Na)	0.00005%	max.
Strontium (Sr)	0.000002%	max.
Tin (Sn)	0.00002%	max.
Titanium (Ti)	0.00002%	max.
Zinc (Zn)	0.00001%	max.

Cat No.	Package	Size
RP1137-G500ML	Glass	500 mL
RP1137-G1L	Glass	1 L
RP1137-G2.5L	Glass	2.5 L
RP1137-G4L	Glass	4 L

Cat No.	Package	Size
RP1137-P2.5L	Plastic	2.5 L
RP1137-P4L	Plastic	4 L
RP1137-P30KG	Plastic	30 kg
RP1137-P200L	Plastic	200 L

Nitric Acid 70%, Superpure — Code SP1137

Specifications

Assay (by acidimetry)	69.0 – 70.0%	
Appearance	Passes test	
Color (APHA)	7	max.
Residue after Ignition	1	ppm max.
Chloride (Cl)	0.08	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Sulfate (SO_4)	0.2	ppm max.
Silicate (as Si)	0.1	ppm max.
Aluminium (Al)	5	ppb max.
Antimony (Sb)	0.5	ppb max.
Arsenic (As)	0.5	ppb max.
Barium (Ba)	0.3	ppb max.
Beryllium (Be)	0.1	ppb max.
Bismuth (Bi)	0.2	ppb max.
Boron (B)	2	ppb max.
Cadmium (Cd)	0.5	ppb max.
Calcium (Ca)	15	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	1	ppb max.
Copper (Cu)	0.5	ppb max.
Gallium (Ga)	0.1	ppb max.
Germanium (Ge)	0.1	ppb max.
Gold (Au)	0.1	ppb max.
Indium (In)	0.1	ppb max.
Iron (Fe)	15	ppb max.
Lead (Pb)	0.3	ppb max.
Lithium (Li)	0.1	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	0.1	ppb max.
Mercury (Hg)	0.1	ppb max.
Molybdenum (Mo)	0.5	ppb max.
Nickel (Ni)	0.5	ppb max.
Niobium (Nb)	0.1	ppb max.
Platinum (Pt)	0.5	ppb max.
Potassium (K)	5	ppb max.
Silver (Ag)	1	ppb max.
Sodium (Na)	10	ppb max.
Strontium (Sr)	0.1	ppb max.
Thallium (Tl)	0.1	ppb max.
Tin (Sn)	0.5	ppb max.
Titanium (Ti)	0.5	ppb max.
Vanadium (V)	0.5	ppb max.
Zinc (Zn)	1	ppb max.
Zirconium (Zr)	0.1	ppb max.
Particle/ml :		
0.5 µm and greater	64	max.

Cat No.	Package	Size
SP1137-P1L	Plastic	1 L

Nitric Acid 70%, Semig — Code SM1137

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	69.0 – 70.0%	
Color (APHA)	10	max.
Chloride (Cl)	0.08	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.1	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.1	ppm max.
Copper (Cu)	0.05	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.3	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.3	ppm max.

Cat No.	Package	Size
SM1137-G500ML	Glass	500 mL
SM1137-G1L	Glass	1 L
SM1137-G2.5L	Glass	2.5 L
SM1137-G4L	Glass	4 L

Cat No.	Package	Size
SM1137-P2.5L	Plastic	2.5 L
SM1137-P4L	Plastic	4 L
SM1137-P30KG	Plastic	30 kg
SM1137-P200L	Plastic	200 L

Nitric Acid 70%, Semig Plus — Code SM1136

Specifications

Assay (by acidimetry)	69.0 - 70.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	2	ppm max.
Chloride (Cl)	0.08	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic (As)	0.005	ppm max.
Antimony (Sb)	0.005	ppm max.
Boron (B)	0.01	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.03	ppm max.
Copper (Cu)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.02	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.05	ppm max.
Sodium (Na)	0.2	ppm max.
Tin (Sn)	0.02	ppm max.
Titanium (Ti)	0.01	ppm max.
Zinc (Zn)	0.03	ppm max.

Cat No.	Package	Size
SM1136-G500ML	Glass	500 mL
SM1136-G1L	Glass	1 L
SM1136-G2.5L	Glass	2.5 L
SM1136-G4L	Glass	4 L
SM1136-P2.5L	Plastic	2.5 L
SM1136-P4L	Plastic	4 L
SM1136-P20L	Plastic	20 L
SM1136-P30KG	Plastic	30 kg
SM1136-P200L	Plastic	200 L

Nitric Acid 70%, Electropure — Code EP1137

Specifications

Assay (by acidimetry)	69.0 – 70.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	2	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Sulfate (SO_4)	0.2	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.05	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.1	ppm max.
Gold (Au)	0.05	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.05	ppm max.

Cat No.	Package	Size
EP1137-G500ML	Glass	500 mL
EP1137-G1L	Glass	1 L
EP1137-G2.5L	Glass	2.5 L
EP1137-G4L	Glass	4 L
EP1137-P2.5L	Plastic	2.5 L
EP1137-P4L	Plastic	4 L
EP1137-P30KG	Plastic	30 kg
EP1137-P200L	Plastic	200 L

Nitric Acid 70%, VLSI — Code VL1137

Specifications

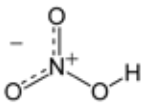
Assay (by acidimetry)	69.0 – 70.0%	
Appearance	Passes test	
Color (APHA)	7	max.
Residue after Ignition	1	ppm max.
Chloride (Cl)	0.08	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Sulfate (SO_4)	0.2	ppm max.
Silicate (as Si)	0.1	ppm max.
Aluminium (Al)	20	ppb max.
Antimony (Sb)	1	ppb max.
Arsenic (As)	1	ppb max.
Barium (Ba)	5	ppb max.
Beryllium (Be)	1	ppb max.
Bismuth (Bi)	5	ppb max.
Boron (B)	5	ppb max.
Cadmium (Cd)	1	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	1	ppb max.
Copper (Cu)	5	ppb max.
Gallium (Ga)	1	ppb max.
Germanium (Ge)	5	ppb max.
Gold (Au)	1	ppb max.

Indium (In)	1	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	1	ppb max.
Magnesium (Mg)	10	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	1	ppb max.
Nickel (Ni)	5	ppb max.
Platinum (Pt)	1	ppb max.
Potassium (K)	5	ppb max.
Silver (Ag)	5	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	1	ppb max.
Tantalum (Ta)	1	ppb max.
Thallium (Tl)	1	ppb max.
Tin (Sn)	1	ppb max.
Titanium (Ti)	5	ppb max.
Vanadium (V)	5	ppb max.
Zinc (Zn)	10	ppb max.
Zirconium (Zr)	1	ppb max.
Particle/ml :		
0.5 µm and greater	64	max.

Cat No.	Package	Size
VL1137-G500ML	Glass	500 mL
VL1137-G1L	Glass	1 L
VL1137-G2.5L	Glass	2.5 L
VL1137-G4L	Glass	4 L

Cat No.	Package	Size
VL1137-P2.5L	Plastic	2.5 L
VL1137-P4L	Plastic	4 L
VL1137-P30KG	Plastic	30 kg
VL1137-P200L	Plastic	200 L

NITRIC ACID 90% Fuming



HNO_3	FW. 63.01	Density =	1.48 kg/L
CAS-No.	7697-37-2	Melting Point	-65.2 °C
UN No.	2031	Boiling Point	96.2 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8 (5.1)	Packing Group:	I

Danger

GHS: H272, H290,H314, H331, EUH071; P210, P220, P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 90% Fuming, AR — Code AR1138

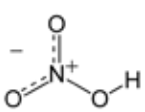
Specifications (Meet A.C.S. Specifications)

Assay (by acidimetry)	90%	min.	Arsenic (As)	0.01	ppm max.
Dilution test	Passes test		Cadmium (Cd)	0.1	ppm max.
Dissolved Oxides (as N_2O_3)	0.1%	max.	Copper (Cu)	0.1	ppm max.
Residue after Ignition	0.002%	max.	Iron (Fe)	1.0	ppm max.
Chloride (Cl)	0.5	ppm max.	Lead (Pb)	0.5	ppm max.
Sulfate (SO_4)	2.0	ppm max.	Manganese (Mn)	0.1	ppm max.
Heavy metals (as Pb)	1.0	ppm max.	Nickel (Ni)	0.1	ppm max.

Cat No.	Package	Size
AR1138-G500ML	Glass	500 mL

Cat No.	Package	Size
AR1138-G1L	Glass	1 L

NITRIC ACID 95% Fuming



HNO_3	FW. 63.01	Density =	1.49 kg/L
CAS-No.	7697-37-2	Melting Point	-49.5 °C
UN No.	2032	Boiling Point	87.1 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8 (5.1, 6.1)	Packing Group:	I

Danger

GHS: H272, H290,H314, H331, EUH071; P210, P220, P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 95% Fuming, AR — Code AR1139

Specifications (Meet A.C.S. Specifications)

Assay (by acidimetry)	95%	min.	Arsenic (As)	0.01	ppm max.
Dilution test	Passes test		Cadmium (Cd)	0.1	ppm max.
Dissolved Oxides (as N_2O_3)	0.1%	max.	Copper (Cu)	0.1	ppm max.
Residue after Ignition	0.002%	max.	Iron (Fe)	1.0	ppm max.
Chloride (Cl)	0.5	ppm max.	Lead (Pb)	0.5	ppm max.
Sulfate (SO_4)	2.0	ppm max.	Manganese (Mn)	0.1	ppm max.
Heavy metals (as Pb)	1.0	ppm max.	Nickel (Ni)	0.1	ppm max.

Cat No.	Package	Size
AR1139-G500ML	Glass	500 mL

Cat No.	Package	Size
AR1139-G1L	Glass	1 L

Nitric Acid 95% Fuming, Semig — Code SM1139

Specifications

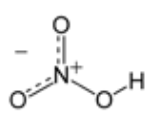
Assay (by acidimetry)	95%	min.
Residue after Ignition	0.002%	max.
Chloride (Cl)	0.5	ppm max.
Sulfate (SO_4)	2	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic (As)	0.02	ppm max.
Barium (Ba)	0.02	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Cadmium (Cd)	0.02	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.

Iron (Fe)	1	ppm max.
Lead (Pb)	0.03	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.5	ppm max.
Silver (Ag)	0.05	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.02	ppm max.
Titanium (Ti)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.05	ppm max.

Cat No.	Package	Size
SM1139-G500ML	Glass	500 mL

Cat No.	Package	Size
SM1139-G1L	Glass	1 L

NITRIC ACID 97% Fuming



HNO_3	FW. 63.01	Density =	1.49 kg/L
CAS-No.	7697-37-2	Melting Point	-43.5 °C
UN No.	2032	Boiling Point	85.2 °C
EC No.	231-714-2	EC-Index-No	007-004-00-1
Class:	8 (5.1, 6.1)	Packing Group:	I

Danger

GHS: H272, H290,H314, H331, EUH071; P210, P220, P234, P260, P264, P271, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P403 + P233, P406

Nitric Acid 97% Fuming, AR — Code AR1135

Specifications (Meet A.C.S. Specifications)

Assay (by acidimetry)	97%	min.
Dilution test	Passes test	
Dissolved Oxides (as N_2O_3)	0.1%	max.
Residue after Ignition	0.002%	max.
Chloride (Cl)	0.5	ppm max.
Sulfate (SO_4)	2.0	ppm max.
Heavy metals (as Pb)	1.0	ppm max.

Arsenic (As)	0.01	ppm max.
Cadmium (Cd)	0.1	ppm max.
Copper (Cu)	0.1	ppm max.
Iron (Fe)	1.0	ppm max.
Lead (Pb)	0.5	ppm max.
Manganese (Mn)	0.1	ppm max.
Nickel (Ni)	0.1	ppm max.

Cat No.	Package	Size
AR1135-G500ML	Glass	500 mL

Cat No.	Package	Size
AR1135-G1L	Glass	1 L

n-OCTANE 99%

$CH_3(CH_2)_6CH_3$	FW. 114.23	Density =	0.703 kg/L
CAS-No.	111-65-9	Melting Point	-57 °C
UN No.	1262	Boiling Point	125.7 °C
EC No.	203-892-1	EC-Index-No	601-009-00-8
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P241, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

n-Octane 99%, AR — Code AR1144

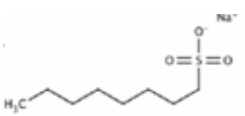
Specifications

Assay (by GC.)	99.0%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.02%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1144-G500ML	Glass	500 mL
AR1144-G1L	Glass	1 L
AR1144-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1144-G4L	Glass	4 L
AR1144-M25L	Metal	25 L
AR1144-M200L	Metal	200 L

1-OCTANESULFONIC ACID SODIUM SALT ANHYDROUS



$C_8H_{17}NaO_3S$	FW. 216.28		
CAS-No.	5324-84-5	Melting Point	299 - 301 °C
EC No.	226-195-4		

1-Octanesulfonic Acid Sodium Salt Anhydrous, HPLC — Code LC1425

Specifications

Description	White crystalline powder		Loss on drying (at 120 °C, vacuum)	2.0%	max.
Assay (Alkalimetric;	99.0%	min.	UV Transmission Levels,%T (0.005 mol/l in water)		
calculated on dried substance)			250 nm	98%	min.
Identity (IR)	Passes test		220 nm	90%	min.
pH value (10% Solution)	5.5 - 7.5		200 nm	70%	min.

Cat No.	Package	Size
LC1425-G25G	Glass	25 G

PAP.1-EXTRA (MODIFIED, HAEMATOXYLIN SOLUTION PROGRESSIVE STAIN)

GHS: H302, H319, H373; P260, P264, P270, P280, P301 + P317, P305 + P351 + P338, P319, P330, P337 + P317

Warning

PAP.1 – EXTRA (Modified, Haematoxylin Solution Progressive Stain) Code MS1457

Specifications

Description	A ready-to-use staining used for nucleus staining in cytology laboratory for the medical diagnostic purpose
Nuclei	Dark blue

Type of Staining	Progressive Stain
Mercury (Hg)	Free

Suitable for both munual staining and slide stainer for the Haematoxylin and Eosin stain (H&E stain)

Cat No.	Package	Size
MS1457-P450ML	Plastic	450 mL
MS1457-P1L	Plastic	1 L

Cat No.	Package	Size
MS1457-P2.5L	Plastic	2.5 L

*This product is not available for Thailand

PAP.2-EXTRA (MODIFIED, ORANGE G (OG-6) SOLUTION)

UN No. 1170
Class: 3 Packing Group: II

GHS: H225, H319; P210, P233, P240, P242, P243, P264, P280, P303 + P361 + P353, P305 + P351 + P338, P337 + P317, P403 + 235

Danger

PAP.2 – EXTRA (Modified, Orange G (OG-6) Solution) Code MS1458

Specifications

Description	A ready-to-use staining used for cytoplasm staining in cytology laboratory for the medical diagnostic purpose
Acidophilic Cells and Keratin	Red to orange

Type of Staining	Counter stain in Papanicoloau stain Method

Suitable for both munual staining and slide stainer for the Haematoxylin and Eosin stain (H&E stain)

Cat No.	Package	Size
MS1458-P450ML	Plastic	450 mL
MS1458-P1L	Plastic	1 L

Cat No.	Package	Size
MS1458-P2.5L	Plastic	2.5 L

*This product is not available for Thailand

PAP.3-EXTRA (MODIFIED, EOSIN AZURE (EA-50) SOLUTION)

UN No. 1170
Class: 3 Packing Group: II

GHS: H225, H319, H371; P210, P233, P240, P242, P243, P260, P264, P270, P280, P303 + P361 + P353, P305 + P351 + P338, P308 + P316, P337 + P317, P403 + P235, P405

Danger

PAP.3 – EXTRA (Modified, Eosin Azure (EA-50) Solution) Code MS1459

Specifications

Description	A ready-to-use staining used for cytoplasm staining in cytology laboratory for the medical diagnostic purpose
Basophilic Cells	Green to blue green

Type of Staining	Counter stain in Papanicoloau stain Method

Suitable for both munual staining and slide stainer for the Haematoxylin and Eosin stain (H&E stain)

Cat No.	Package	Size
MS1459-P450ML	Plastic	450 mL
MS1459-P1L	Plastic	1 L

*This product is not available for Thailand

Cat No.	Package	Size
MS1459-P2.5L	Plastic	2.5 L

PATH.1-EXTRA (MODIFIED, HAEMATOXYLIN SOLUTION PROGRESSIVE STAIN)

GHS: H302, H319, H373; P260, P264, P270, P280, P301 + P317, P305 + P351 + P338, P319, P330, P337 + P317

Warning

PATH.1-EXTRA (Modified, Haematoxylin Solution Progressive Stain) Code MS1455

Specifications

Description	A ready-to-use staining used for nucleus staining in pathology laboratory for the medical diagnostic purpose
Nuclei	Dark blue

Type of Staining	Progressive Stain
Mercury (Hg)	Free

Suitable for both munual staining and slide stainer for the Haematoxylin and Eosin stain (H&E stain)

Cat No.	Package	Size
MS1455-P450ML	Plastic	450 mL
MS1455-P1L	Plastic	1 L

*This product is not available for Thailand

Cat No.	Package	Size
MS1455-P2.5L	Plastic	2.5 L

PATH.2-EXTRA (EOSIN SOLUTION, WORKING)

UN No.	1170		
Class:	3	Packing Group:	II
GHS:	H225, H317, H319; P210, P233, P240, P242, P243, P261, P264, P272, P280, P302 + P352, P303 + P361 + P353, P305 + P351 + P338, P337 + P317, P362 + P364, P403 + P253		

Danger

PATH.2-EXTRA (Eosin Solution, Working) Code MS1456

Specifications

Description	A ready-to-use staining used for cytoplasm staining in pathology laboratory for the medical diagnostic purpose
Cytoplasm	Pink to red

Type of Staining	PATH.1-Counter stain

Suitable for both munual staining and slide stainer for the Haematoxylin and Eosin stain (H&E stain)

Cat No.	Package	Size
MS1456-P450ML	Plastic	450 mL
MS1456-P1L	Plastic	1 L

*This product is not available for Thailand

Cat No.	Package	Size
MS1456-P2.5L	Plastic	2.5 L

n-PENTANE 95%

$CH_3(CH_2)_3CH_3$	FW. 72.15	Density =	0.630 kg/L
CAS-No.	109-66-0	Melting Point	-129.7 °C
UN No.	1265	Boiling Point	36.1 °C
EC No.	203-692-4	EC-Index-No	601-006-00-1
Class:	3	Packing Group:	II
GHS:	H225, H304, H336, H411, EUH066; P210, P233, P240, P242, P243, P261, P271, P273, P280, P301 + P316, P303 + P361 + P353, P304 + P340, P319, P331, P391, P403 + P235, P405		

Danger

n-Pentane 95%, AR Code AR1145

Specifications

Assay (by GC.)	95.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.

Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1145-G500ML	Glass	500 mL
AR1145-G1L	Glass	1 L
AR1145-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1145-G4L	Glass	4 L
AR1145-M20L	Metal	20 L
AR1145-M200L	Metal	200 L

n-Pentane 95%, RCI Premium — Code RP1145

Specifications

Assay (by GC.)	95.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.

Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1145-G500ML	Glass	500 mL
RP1145-G1L	Glass	1 L
RP1145-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1145-G4L	Glass	4 L
RP1145-M20L	Metal	20 L
RP1145-M200L	Metal	200 L

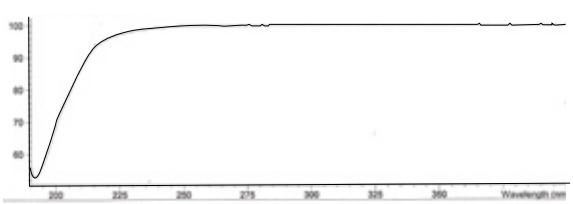
n-Pentane 95%, HPLC — Code LC1145

Specifications

Assay (by GC.)	95.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	85%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1145-G500ML	Glass	500 mL
LC1145-G1L	Glass	1 L

Cat No.	Package	Size
LC1145-G2.5L	Glass	2.5 L
LC1145-G4L	Glass	4 L

n-PENTANE 99%

$CH_3(CH_2)_3CH_3$	FW. 72.15	Density =	0.630 kg/L
CAS-No.	109-66-0	Melting Point	-129.7 °C
UN No.	1265	Boiling Point	36.1 °C
EC No.	203-692-4	EC-Index-No	601-006-00-1
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H336, H411, EUH066; P210, P233, P240, P242, P243, P261, P271, P273, P280, P301 + P316, P303 + P361 + P353, P304 + P340, P319, P331, P391, P403 + P235, P405

n-Pentane 99%, AR — Code AR1146

Specifications

Assay (by GC.)	99.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1146-G500ML	Glass	500 mL
AR1146-G1L	Glass	1 L
AR1146-G2.5L	Glass	2.5 L
AR1146-G4L	Glass	4 L
AR1146-M20L	Metal	20 L
AR1146-M200L	Metal	200 L

n-Pentane 99%, RCI Premium — Code RP1146

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1146-G500ML	Glass	500 mL
RP1146-G1L	Glass	1 L
RP1146-G2.5L	Glass	2.5 L
RP1146-G4L	Glass	4 L
RP1146-M20L	Metal	20 L
RP1146-M200L	Metal	200 L

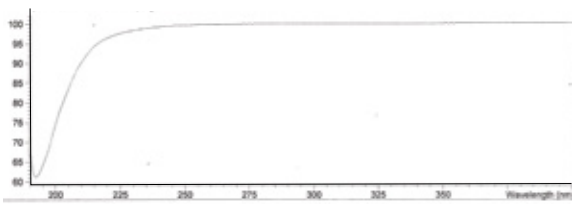
n-Pentane 99%, HPLC — Code LC1146

Specifications

Assay (by GC.)	99.0%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	85%	min.
210 nm	60%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1146-G500ML	Glass	500 mL
LC1146-G1L	Glass	1 L

Cat No.	Package	Size
LC1146-G2.5L	Glass	2.5 L
LC1146-G4L	Glass	4 L

n-Pentane 99%, GC-MS — Code GM1146

Specifications

Assay (by GC.)	99.00%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.

Residue on Evaporation	0.0002%	max.
Substances darkened by sulfuric acid	Passes test	
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak, (retention range		
n-undecane to n-tetracontane)		

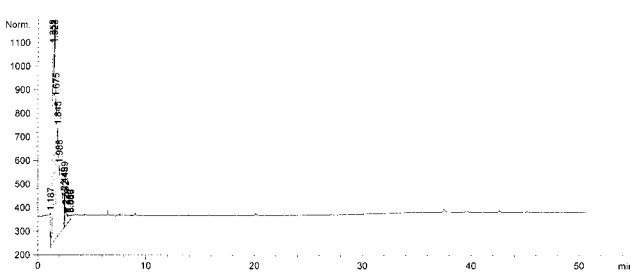
Cat No.	Package	Size
GM1146-G500ML	Glass	500 mL
GM1146-G1L	Glass	1 L

Cat No.	Package	Size
GM1146-G2.5L	Glass	2.5 L
GM1146-G4L	Glass	4 L

n-Pentane 99%, Pesticide — Code PC1146

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5 ng/L max.	
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5 µg/L max.	
Single impurity peak		



Cat No.	Package	Size
PC1146-G500ML	Glass	500 mL
PC1146-G1L	Glass	1 L

Cat No.	Package	Size
PC1146-G2.5L	Glass	2.5 L
PC1146-G4L	Glass	4 L

n-Pentane 99%, LVI-GC — Code LV1146

Specifications

Assay (by GC.)	99.00%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1146-G500ML	Glass	500 mL
LV1146-G1L	Glass	1 L

Cat No.	Package	Size
LV1146-G2.5L	Glass	2.5 L
LV1146-G4L	Glass	4 L

n-Pentane 99%, UV-IR — Code IR1146

Specifications

Assay (by GC.)	99.0%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
240 nm	98%	min.

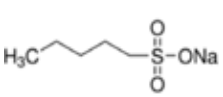
230 nm	95%	min.
220 nm	85%	min.
210 nm	60%	min.
200 nm	20%	min.
Fluorescence (as quinine)		
at 254 nm	1 ppb	max.
at 365 nm	1 ppb	max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1146-G500ML	Glass	500 mL
IR1146-G1L	Glass	1 L

Cat No.	Package	Size
IR1146-G2.5L	Glass	2.5 L
IR1146-G4L	Glass	4 L

1-PENTANESULFONIC ACID SODIUM SALT ANHYDROUS



$C_5H_{11}NaO_3S$ FW. 174.19
CAS-No. 22767-49-3
EC No. 245-208-4

Melting Point > 300 °C

1-Pentanesulfonic Acid Sodium Salt Anhydrous, HPLC — Code LC1419

Specifications

Description	White crystalline powder
Assay	99.0% min.
(Alkalimetric; calculated on dried substance)	
Identity (IR)	Passes test
pH value (10% Solution)	5.5 - 7.5

Loss on drying (at 120 oC, vacuum)	2.0%	max.
UV Transmission Levels,%T (0.005 mol/l in water)		
250 nm	98%	min.
220 nm	90%	min.
200 nm	70%	min.

Cat No.	Package	Size
LC1419-G25G	Glass	25 g

PETROLEUM ETHER 40-60

CAS-No.	8032-32-4	Density =	0.645-0.665 kg/L
UN No.	1268	Boiling Point	40-60 °C
EC No.	232-453-7	EC-Index-No	649-263-00-9
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411; P203, P210, P233, P240, P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Petroleum Ether 40-60, AR — Code AR1147

Specifications

Water (by Coulometry)	0.02%	max.
Color (APHA)	10	max.
Acidity (mEq./g.)	0.0005	max.

(Meet A.C.S. Specifications)

Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.002%	max.
Boiling range (oC)	40-60	

Cat No.	Package	Size
AR1147-G500ML	Glass	500 mL
AR1147-G1L	Glass	1 L
AR1147-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1147-G4L	Glass	4 L
AR1147-M25L	Metal	25 L
AR1147-M200L	Metal	200 L

Petroleum Ether 40 - 60, RCI Premium — Code RP1147

Specifications

Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Aromatics (as C_6H_6)	0.02%	max.
Matter discoloured by H_2SO_4 (APHA)	10	max.
Peroxide value (by Wheeler)	0.8	max.
Sulfur Compounds (S)	0.002%	max.
Boiling range (°C)	40-60	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.

(Meet A.C.S. Specifications)

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

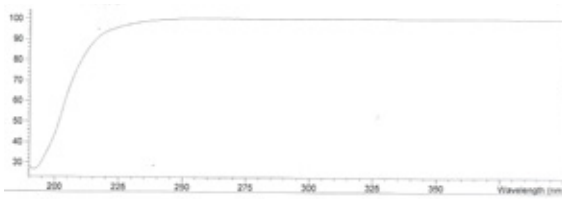
Cat No.	Package	Size
RP1147-G500ML	Glass	500 mL
RP1147-G1L	Glass	1 L
RP1147-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1147-G4L	Glass	4 L
RP1147-M25L	Metal	25 L
RP1147-M200L	Metal	200 L

Petroleum Ether 40 - 60, HPLC — Code LC1147

Specifications

Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Sulfur Compounds (S)	0.002%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	80%	min.
210 nm	60%	min.



Product passed through 0.2 micron final filter.

Cat No.	Package	Size
LC1147-G500ML	Glass	500 mL
LC1147-G1L	Glass	1 L

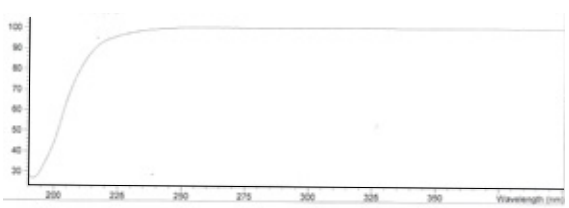
Cat No.	Package	Size
LC1147-G2.5L	Glass	2.5 L
LC1147-G4L	Glass	4 L

Petroleum Ether 40 - 60, HPLC Plus — Code LC1305

Specifications

Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Sulfur Compounds (S)	0.002%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	80%	min.
210 nm	60%	min.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Product passed through 0.2 micron final filter.



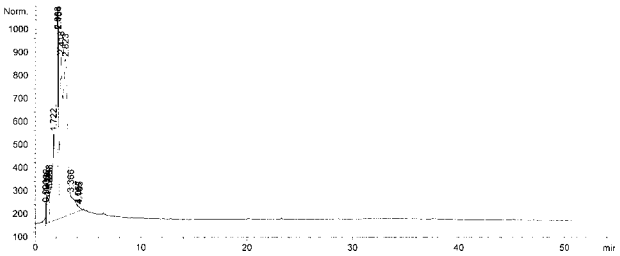
Cat No.	Package	Size
LC1305-G500ML	Glass	500 mL
LC1305-G1L	Glass	1 L

Cat No.	Package	Size
LC1305-G2.5L	Glass	2.5 L
LC1305-G4L	Glass	4 L

Petroleum Ether 40 - 60, Pesticide — Code PC1147

Specifications

Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1147-G500ML	Glass	500 mL
PC1147-G1L	Glass	1 L

Cat No.	Package	Size
PC1147-G2.5L	Glass	2.5 L
PC1147-G4L	Glass	4 L

Petroleum Ether 40 - 60, LVI-GC — Code LV1147

Specifications

Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		

Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1147-G500ML	Glass	500 mL
LV1147-G1L	Glass	1 L

Cat No.	Package	Size
LV1147-G2.5L	Glass	2.5 L
LV1147-G4L	Glass	4 L

PETROLEUM ETHER 60-80

CAS-No.	8032-32-4	Density =	0.680 kg/L
UN No.	1268	Boiling Point	60-80 °C
EC No.	232-453-7	EC-Index-No	649-263-00-9
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411; P203, P210, P233, P240, P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Petroleum Ether 60 - 80, AR — Code AR1148

Specifications

Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.

Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.002%	max.

Cat No.	Package	Size
AR1148-G500ML	Glass	500 mL
AR1148-G1L	Glass	1 L
AR1148-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1148-G4L	Glass	4 L
AR1148-M25L	Metal	25 L
AR1148-M200L	Metal	200 L

Petroleum Ether 60 - 80, RCI Premium — Code RP1148

Specifications

Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Aromatics (as C_6H_6)	0.005%	max.
Readily carbonizable substances	Passes test	
Sulfur Compounds (S)	0.002%	max.
Boiling range (°C)	60-80	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1148-G500ML	Glass	500 mL
RP1148-G1L	Glass	1 L
RP1148-G2.5L	Glass	2.5 L

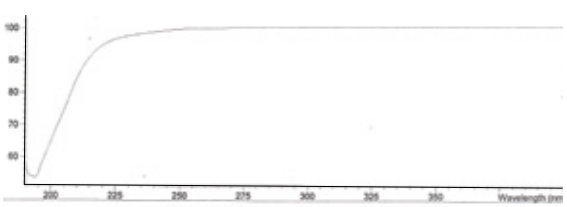
Cat No.	Package	Size
RP1148-G4L	Glass	4 L
RP1148-M25L	Metal	25 L
RP1148-M200L	Metal	200 L

Petroleum Ether 60 - 80, HPLC — Code LC1148

Specifications

Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
Sulfur Compounds (S)	0.002%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	80%	min.
210 nm	60%	min.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1148-G500ML	Glass	500 mL
LC1148-G1L	Glass	1 L

Cat No.	Package	Size
LC1148-G2.5L	Glass	2.5 L
LC1148-G4L	Glass	4 L

Petroleum Ether 60 - 80, Pesticide — Code PC1148

Specifications

Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.

GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		

Cat No.	Package	Size
PC1148-G500ML	Glass	500 mL
PC1148-G1L	Glass	1 L

Cat No.	Package	Size
PC1148-G2.5L	Glass	2.5 L
PC1148-G4L	Glass	4 L

Petroleum Ether 60 - 80, LVI-GC — Code LV1148

Specifications

Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		

Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1148-G500ML	Glass	500 mL
LV1148-G1L	Glass	1 L

Cat No.	Package	Size
LV1148-G2.5L	Glass	2.5 L
LV1148-G4L	Glass	4 L

PETROLEUM ETHER 60-90

		Density =	0.655-0.730 kg/L
CAS-No.	8032-32-4		
UN No.	1268	Boiling Point	60-90 °C
EC No.	232-453-7	EC-Index-No	232-453-7
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361f, H373, H411; P203, P210, P233, P240 ,P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Petroleum Ether 60-90, AR — Code AR1398

Specifications

Water (by Coulometry)	0.02%	max.
Color (APHA)	10	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Boiling range (°C)	60-90	

Cat No.	Package	Size
AR1398-G500ML	Glass	500 mL
AR1398-G1L	Glass	1 L

Cat No.	Package	Size
AR1398-G2.5L	Glass	2.5 L
AR1398-G4L	Glass	4 L

PETROLEUM ETHER 80-100

		Density =	0.690 kg/L
CAS-No.	8032-32-4		
UN No.	1268	Boiling Point	80-100 °C
EC No.	232-453-7	EC-Index-No	649-263-00-9
Class:	3	Packing Group	II

Danger

GHS: H225, H304, H315, H336, H411; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Petroleum Ether 80-100, AR — Code AR1149

Specifications

Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.005%	max.
Sulfur Compounds (S)	0.002%	max.

Cat No.	Package	Size
AR1398-G500ML	Glass	500 mL
AR1398-G1L	Glass	1 L

Cat No.	Package	Size
AR1398-G2.5L	Glass	2.5 L
AR1398-G4L	Glass	4 L

Petroleum Ether 80-100, RCI Premium — Code RP1149

Specifications

Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Aromatics (as C_6H_6)	0.005%	max.
Matter discoloured by H_2SO_4 (APHA)	10	max.
Sulfur Compounds (S)	0.002%	max.
Boiling range (°C)	80-100	
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1149-G500ML	Glass	500 mL
RP1149-G1L	Glass	1 L
RP1149-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1149-G4L	Glass	4 L
RP1149-G25L	Metal	25 L
RP1149-G200L	Metal	200 L

PETROLEUM ETHER 90-120

		Density =	0.685-0.730 kg/L
CAS-No.	8032-32-4		
UN No.	1268	Boiling Point	90-120 °C
EC No.	232-453-7	EC-Index-No	649-263-00-9
Class:	3	Packing Group	II

Danger

GHS: H225, H304, H315, H336,H411; P210, P233, P240 ,P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Petroleum Ether 90-120, AR — Code AR1399

Specifications

Water (by Coulometry)	0.02%	max.
Color (APHA)	10	max.
Acidity (mEq./g.)	0.0005	max.

Residue on Evaporation	0.005%	max.
Boiling range (°C)	90-120	

Cat No.	Package	Size
AR1399-G500ML	Glass	500 mL
AR1399-G1L	Glass	1 L

Cat No.	Package	Size
AR1399-G2.5L	Glass	2.5 L
AR1399-G4L	Glass	4 L

PETROLEUM ETHER 100-120

		Density =	0.700 kg/L
CAS-No.	8032-32-4		
UN No.	1268	Boiling Point	100-120 °C
EC No.	232-453-7	EC-Index-No	649-263-00-9
Class:	3	Packing Group	II

Danger

GHS: H225, H304, H315, H336, H411; P210, P233, P240 ,P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

Petroleum Ether 100-120, AR — Code AR1150

Specifications

Water (by Coulometry)	0.02%	max.	Residue on Evaporation	0.005%	max.
Acidity (mEq./g.)	0.0005	max.	Sulfur Compounds (S)	0.002%	max.

Cat No.	Package	Size
AR1150-G500ML	Glass	500 mL
AR1150-G1L	Glass	1 L
AR1150-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1150-G4L	Glass	4 L
AR1150-M25L	Metal	25 L
AR1150-M200L	Metal	200 L

Petroleum Ether 100-120, RCI Premium — Code RP1150

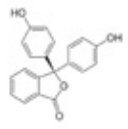
Specifications

Color (APHA)	10	max.	Calcium (Ca)	0.2	ppm max.
Water (by Coulometry)	0.01%	max.	Chromium (Cr)	0.01	ppm max.
Acidity (mEq./g.)	0.0003	max.	Cobalt (Co)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Copper (Cu)	0.01	ppm max.
Aromatics (as C_6H_6)	0.002%	max.	Iron (Fe)	0.05	ppm max.
Matter discoloured by H_2SO_4 (APHA)	10	max.	Lead (Pb)	0.05	ppm max.
Sulfur Compounds (S)	0.002%	max.	Magnesium (Mg)	0.05	ppm max.
Boiling range (°C)	100-120		Manganese (Mn)	0.01	ppm max.
Aluminium (Al)	0.2	ppm max.	Molybdenum (Mo)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Nickel (Ni)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Tin (Sn)	0.05	ppm max.
Cadmium (Cd)	0.02	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1150-G500ML	Glass	500 mL
RP1150-G1L	Glass	1 L
RP1150-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1150-G4L	Glass	4 L
RP1150-G25L	Metal	25 L
RP1150-G200L	Metal	200 L

PHENOLPHTHALEIN INDICATOR



$C_{20}H_{14}O_4$	FW. 318.32	Density =	1.30 g/cm^3
CAS-No.	77-09-8	Melting Point	258 - 261 °C
EC No.	201-004-7	Boiling Point`	>450°C
		EC-Index-No	604-076-00-1

Danger

GHS: H341, H350, H361f; P203, P280, P318, P405

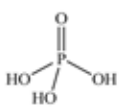
Phenolphthalein Indicator, AR — Code AR1256

Specifications

Appearance	A white powder		Sensitivity	Passes test	
pH range 8.3 - 10.0	Colorless to red-violet		Chloride (Cl)	0.01%	max.

Cat No.	Package	Size
AR1256-G500ML	Glass	500 mL

ortho-PHOSPHORIC ACID 85%



H_3PO_4	FW. 98.00	Density =	1.71 kg/L
CAS-No.	7664-38-2	Melting Point	21 °C
		Boiling Point	158 °C
EC No.	231-633-2	EC-Index-No	015-011-00-6
Class:	8	Packing Group	III

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361+ P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

ortho-Phosphoric acid 85%, AR — Code AR1152

Specifications

Assay (by acidimetry)	85 - 86%		Cadmium (Cd)	0.5	ppm max.
Appearance of solution	Clear		Calcium (Ca)	20	ppm max.
Color (APHA)	10	max.	Cobalt (Co)	0.5	ppm max.
Identity	Passes Test		Copper (Cu)	0.5	ppm max.
Insoluble matter	10	ppm max.	Iron (Fe)	10	ppm max.
Reducing substances	Passes Test		Lead (Pb)	0.5	ppm max.
Volatile acids (as CH_3COOH)	10	ppm max.	Magnesium (Mg)	5	ppm max.
Chloride (Cl)	2	ppm max.	Manganese (Mn)	0.5	ppm max.
Nitrate (NO_3)	3	ppm max.	Nickel (Ni)	1	ppm max.
Sulfate (SO_4)	20	ppm max.	Potassium (K)	5	ppm max.
Heavy metals (as Pb)	10	ppm max.	Sodium (Na)	50	ppm max.
Antimony (Sb)	10	ppm max.	Zinc (Zn)	2	ppm max.
Arsenic (As)	0.5	ppm max.			

(Meet A.C.S. Specifications)

Cat No.	Package	Size
AR1152-G500ML	Glass	500 mL
AR1152-G1L	Glass	1 L
AR1152-G2.5L	Glass	2.5 L
AR1152-G4L	Glass	4 L

Cat No.	Package	Size
AR1152-P2.5L	Plastic	2.5 L
AR1152-P4L	Plastic	4 L
AR1152-P20L	Plastic	20 L
AR1152-P200L	Plastic	200 L

ortho-Phosphoric acid 85%, RCI Premium — Cod RP1152

Specifications

(Meet A.C.S. Specifications)A

Assay (by acidimetry)	85%	min.
Appearance of solution	Clear	
Color (APHA)	10	max.
Identity	Passes test	
Insoluble matter	0.001%	max.
Reducing substances	Passes test	
Volatile acids (as CH_3COOH)	0.001%	max.
Chloride (Cl)	0.0002%	max.
Nitrate (NO_3)	0.0003%	max.
Sulfate (SO_4)	0.002%	max.
Heavy metals (as Pb)	0.001%	max.
Aluminium (Al)	0.0005%	max.
Arsenic (As)	0.00005%	max.
Antimony (Sb)	0.0005%	max.
Barium (Ba)	0.00005%	max.
Beryllium (Be)	0.00001%	max.
Bismuth (Bi)	0.00001%	max.
Cadmium (Cd)	0.00005%	max.
Calcium (Ca)	0.002%	max.
Chromium (Cr)	0.0005%	max.
Cobalt (Co)	0.00005%	max.
Copper (Cu)	0.00005%	max.

Gallium (Ga)	0.00001%	max.
Germanium (Ge)	0.00001%	max.
Gold (Au)	0.00001%	max.
Iron (Fe)	0.001%	max.
Lead (Pb)	0.00005%	max.
Lithium (Li)	0.00001%	max.
Magnesium (Mg)	0.0005%	max.
Manganese (Mn)	0.00005%	max.
Molybdenum (Mo)	0.0001%	max.
Mercury (Hg)	0.00001%	max.
Nickel (Ni)	0.0001%	max.
Platinum (Pt)	0.00001%	max.
Potassium (K)	0.0005%	max.
Silver (Ag)	0.00001%	max.
Sodium (Na)	0.01%	max.
Strontium (Sr)	0.00001%	max.
Thallium (Tl)	0.00005%	max.
Tin (Sn)	0.00001%	max.
Vanadium (V)	0.00001%	max.
Zinc (Zn)	0.0002%	max.
Zirconium (Zr)	0.0001%	max.

Cat No.	Package	Size
RP1152-G500ML	Glass	500 mL
RP1152-G1L	Glass	1 L
RP1152-G2.5L	Glass	2.5 L
RP1152-G4L	Glass	4 L

Cat No.	Package	Size
RP1152-P2.5L	Plastic	2.5 L
RP1152-P4L	Plastic	4 L
RP1152-P20L	Plastic	20 L
RP1152-P200L	Plastic	200 L

ortho-Phosphoric acid 85%, Pharma — Code BP1152

Specifications

(Meets Ph.Eur, BP, USP/NF, ACS)

Assay (by acidimetry)	85 - 86%	
Appearance	Clear and colorless	
Identity	Passes test	
Color (APHA)	10	max.
Solubility	Passes test	
Insoluble matter	10	ppm max.
Substances precipitated with ammonia	Passes test	
Reducing substances	passes test	
Alkali Phosphates	Passes test	
Hypophosphorous and Phosphorous Acid	Passes test	
Volatile Acids (as CH_3COOH)	10	ppm max.
Chloride (Cl)	3	ppm max.

Nitrate (NO_3)	5	ppm max.
Sulfate (SO_4)	30	ppm max.
Heavy metals (as Pb)	10	ppm max.
Antimony (Sb)	20	ppm max.
Arsenic (As)	1	ppm max.
Calcium (Ca)	20	ppm max.
Iron (Fe)	30	ppm max.
Magnesium (Mg)	20	ppm max.
Manganese (Mn)	0.5	ppm max.
Potassium (K)	50	ppm max.
Sodium (Na)	250	ppm max.

Cat No.	Package	Size
BP1152-G500ML	Glass	500 mL
BP1152-G1L	Glass	1 L
BP1152-G2.5L	Glass	2.5 L
BP1152-G4L	Glass	4 L

Cat No.	Package	Size
BP1152-P2.5L	Plastic	2.5 L
BP1152-P4L	Plastic	4 L
BP1152-P20L	Plastic	20 L
BP1152-P200L	Plastic	200 L

POTASSIUM CHLORIDE

K-Cl

KCl	FW. 74.55	Density =	1.98 g/cm^3
CAS-No.	7447-40-7	Melting Point	773 °C
EC No.	231-211-8	Boiling Point	1413 °C

Potassium Chloride, AR — Code AR1403

Specifications

(Meet A.C.S. Specifications)

Assay (by argentometry)	99.0 - 100.5%		Phosphate (PO_4)	0.0005%	max.
pH of a 5% solution at 25°C	5.4 - 8.6		Heavy metals (as Pb)	0.0005%	max.
Insoluble matter	0.005%	max.	Barium (Ba)	Passes test	
Bromide (Br)	0.01%	max.	Calcium (Ca)	0.002%	max.
Chlorate and Nitrate (as NO_3)	0.003%	max.	Iron (Fe)	0.0003%	max.
Iodide (I)	0.002%	max.	Magnesium (Mg)	0.001%	max.
Sulfate (SO_4)	0.001%	max.	Sodium (Na)	0.005%	max.

Cat No.	Package	Size
AR1403-P500G	Plastic	500 g
AR1403-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1403-P5KG	Plastic	5 kg
AR1403-P25KG	Plastic	25 kg

Potassium Chloride, Pharma — Code BP1353

Specifications

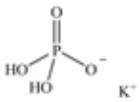
(Meets Ph.Eur, BP, USP/NF)

Assay (by argentometry)	99.0 - 100.5%		Iodide (I)	0.005%	max.
Appearance	White or almost white,		Sulfate (SO_4)	0.03%	max.
	crystalline powder or		Heavy metals (as Pb)	0.001%	max.
	cololess crystals		Aluminium (Al)	0.0001%	max.
Identity	Passes test		Arsenic (As)	0.0002%	max.
Appearance of solution	Clear and colorless		Barium (Ba)	Passes test	
Solubility	Passes test		Iron (Fe)	0.002%	max.
Acidity or Alkalinity	Passes test		Sodium (Na)	0.1%	max.
Loss on drying at 105 °C	1.0%	max.	Magnesium and Alkaline-earth metals	0.02%	max.
Bromide (Br)	0.1%	max.			

Cat No.	Package	Size
BP1353-P500G	Plastic	500 g
BP1353-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1353-P5KG	Plastic	5 kg
BP1353-P25KG	Plastic	25 kg

Potassium Dihydrogen Orthophosphate Anhydrous



KH_2PO_4	FW. 136.09	Density =	2.34 g/cm^3
CAS-No.	7778-77-0	Melting Point	253 °C
EC No.	231-913-4		

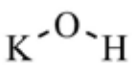
Potassium Dihydrogen Orthophosphate Anhydrous, AR — Code AR1153

Specifications

Description	White crystalline powder	
Assay	99.5%	min.
pH (5% Solution)	4.3 – 4.5	
Total Nitrogen (N)	0.001%	max.
Chloride (Cl)	0.0005%	max.
Sulfate (SO_4)	0.003%	max.
Heavy metals (as Pb)	0.001%	max.
Iron (Fe)	0.001%	max.
Water	0.2%	max.
Sodium (Na)	0.02%	max.

Cat No.	Package	Size
AR1153-P500G	Plastic	500 g
AR1153-P1KG	Plastic	1 kg
AR1153-P5KG	Plastic	5 kg
AR1153-P25KG	Plastic	25 kg

POTASSIUM HYDROXIDE 11% SOLUTION



KOH	FW. 56.11	Density =	1.10 kg/L
CAS-No.	1310-58-3		
UN No.	1814		
EC No.	215-181-3	EC-Index-No	019-002-00-8
Class:	8	Packing group	II

Danger

GHS: H290, H302, H314; P234, P260, P264, P270, P280, P301 + P317, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P330, P363, P390, P405, P406

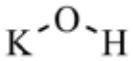
PotaPotassium Hydroxide 11% Solution, AR — Code AR1261

Specifications

Assay (by acidimetry)	11.0% ± 1	
pH of solution	13 ±	max.
Potassium carbonate (K_2CO_3)	1.0%	max.
Nitrogen compounds (as N)	0.0002%	max.
Chloride (Cl)	0.0002%	max.
Phosphate (PO_4)	0.0002%	max.
Sulfate (SO_4)	0.0002%	max.
Heavy metal (as Pb)	0.0002%	max.
Aluminium (Al)	0.0005%	max.
Copper (Cu)	0.0001%	max.
Iron (Fe)	0.0002%	max.
Lead (Pb)	0.0002%	max.
Nickel (Ni)	0.0002%	max.
Sodium (Na)	0.2%	max.

Cat No.	Package	Size
AR1261-P20L	Plastic	20 L

POTASSIUM HYDROXIDE 30% SOLUTION



KOH	FW. 56.11	Density =	1.28 kg/L
CAS-No.	1310-58-3	EC-Index-No	019-002-00-8
UN No.	1814	Packing group	II
EC No.	215-181-3		
Class:	8		

Danger

GHS: H290, H302, H314; P234, P260, P264, P270, P280, P301 + P317, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P330, P363, P390, P405, P406

PotaPotassium Hydroxide 30% Solution, AR — Code AR1271

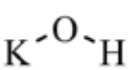
Specifications

Assay (by acidimetry)	30.0% ± 1	
pH of solution	13 ±	max.
Potassium carbonate (K_2CO_3)	1.0%	max.
Nitrogen compounds (as N)	0.0002%	max.
Chloride (Cl)	0.0002%	max.
Phosphate (PO_4)	0.0002%	max.
Sulfate (SO_4)	0.0002%	max.

Heavy metal (as Pb)	0.0002%	max.
Aluminium (Al)	0.0005%	max.
Copper (Cu)	0.0001%	max.
Iron (Fe)	0.0002%	max.
Lead (Pb)	0.0002%	max.
Nickel (Ni)	0.0002%	max.
Sodium (Na)	0.2%	max.

Cat No.	Package	Size
AR1271-P20L	Plastic	20 L

Potassium Hydroxide 85%



KOH	FW. 56.11	Density =	2.04 g/cm^3
CAS-No.	1310-58-3	Melting Point	360 °C
UN No.	1813	Boiling Point	1320 °C
EC No.	215-181-3	EC-Index-No	019-002-00-8
Class:	8	Packing group	II

Danger

GHS: H290, H302, H314; P234, P260, P264, P270, P280, P301 + P317, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Potassium Hydroxide 85%, AR — Code AR1385

Specifications

(Meet A.C.S. Specifications)

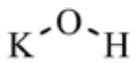
Assay (by acidimetry)	85.0%	min.
Potassium carbonate (K_2CO_3)	2.0%	max.
Nitrogen compounds (as N)	0.001%	max.
Ammonium hydroxide precipitate	0.02%	max.
Chloride (Cl)	0.01%	max.
Phosphate (PO_4)	0.0005%	max.
Sulfate (SO_4)	0.003%	max.
Heavy metal (as Ag)	0.001%	max.

Aluminium (Al)	0.001%	max.
Calcium (Ca)	0.005%	max.
Copper (Cu)	0.0005%	max.
Iron (Fe)	0.001%	max.
Lead (Pb)	0.0005%	max.
Magnesium (Mg)	0.002%	max.
Nickel (Ni)	0.001%	max.
Sodium (Na)	0.05%	max.

Cat No.	Package	Size
AR1385-P500G	Plastic	500 g

Cat No.	Package	Size
AR1385-P1KG	Plastic	1 kg

POTASSIUM HYDROXIDE



KOH	FW. 56.11	Density =	1.00 kg/L
CAS-No.	1310-58-3		
UN No.	1814		
EC No.	215-181-3	EC-Index-No	019-002-00-8
Class:	8	Packing group	III

Warning

GHS: H315, H319; P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364

Potassium hydroxide, 0.1N — Code GN1158

Specifications

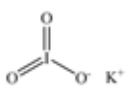
Appearance	Clear, colorless solution

Normality	0.1000N ± 0.0005N
Traceable to NIST	

Cat No.	Package	Size
GN1158-P1L	Plastic	1 L
GN1158-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1158-P4L	Plastic	4 L
GN1158-P20L	Plastic	20 L

POTASSIUM IODATE



KIO_3	FW. 214.0	Density =	3.98 g/cm^3
CAS-No.	7758-05-6	Melting Point	560 °C
UN No.	1479		
EC No.	231-831-9		
Class:	5.1	Packing group	II

Danger

GHS: H272, H302, H319; P210, P220, P264, P270, P280, P301 + P317, P305 + P351,+ P338, P330, P337 + P317

Potassium Iodate, AR — Code AR1159

Specifications

Description	White crystalline powder	
Assay	99.5%	min.
pH (5% Water)	5.0 - 8.0	
Loss on drying at 130 °C	0.05%	max.
Total nitrogen (N)	0.002%	max.
Chloride , Chlorate, Bromide (as Cl)	0.02%	max.

Iodide (I)	0.002%	max.
Sulfate (SO_4)	0.006%	max.
Heavy Metal (as Pb)	0.0006%	max.
Iron (Fe)	0.001%	max.
Sodium (Na)	0.005%	max.

Cat No.	Package	Size
AR1159-P100G	Plastic	100 g
AR1159-P500G	Plastic	500 kg

Cat No.	Package	Size
AR1159-P5KG	Plastic	5 kg
AR1159-P25KG	Plastic	25 kg

POTASSIUM IODIDE

KI

KI	FW. 166.01	Density =	3.13 g/cm^3
CAS-No.	7681-11-0	Melting Point	681 °C
EC No.	231-659-4	Boiling Point	1325 °C
GHS:	H372; P260, P264, P270, P319		

Danger

Potassium Iodide, AR — Code AR1245

Specifications (Meet A.C.S. Specifications)

Assay	99.0%	min.	Sulfate (SO_4)	0.005%	max.
Identification	Passes test		Heavy metals (as Pb)	0.0005%	max.
pH (5% solution at 25 °C)	6.0 - 9.2		Barium (Ba)	0.002%	max.
Insoluble matter	0.005%	max.	Calcium (Ca)	0.002%	max.
Loss on drying	0.2%	max.	Iron (Fe)	0.0003%	max.
Chloride and bromide (as Cl)	0.01%	max.	Lead (Pb)	0.0002%	max.
Iodate (IO_3)	0.0003%	max.	Magnesium (Mg)	0.001%	max.
Phosphate (PO_4)	0.001%	max.	Sodium (Na)	0.005%	max.

Cat No.	Package	Size
AR1245-P500G	Plastic	500 g
AR1245-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1245-P5KG	Plastic	5 kg
AR1245-P25KG	Plastic	25 kg

POTASSIUM IODIDE 99.5%

KI

KI	FW. 166.01	Density =	3.13 g/cm^3
CAS-No.	7681-11-0	Melting Point	681 °C
		Boiling point	1325 °C
EC No.	231-659-4		
GHS:	H372; P260, P264, P270, P319		

Danger

Potassium Iodide 99.5 %, AR — Code AR1350

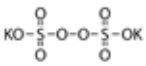
Specifications (Meet A.C.S. Specifications)

Assay	99.5%	min.	Sulfate (SO_4)	0.005%	max.
Identification	Passes test		Heavy metals (as Pb)	0.0005%	max.
pH (5% solution at 25 °C)	6.0 - 9.2		Barium (Ba)	0.002%	max.
Insoluble matter	0.005%	max.	Calcium (Ca)	0.002%	max.
Loss on drying	0.2%	max.	Iron (Fe)	0.0003%	max.
Chloride and bromide (as Cl)	0.01%	max.	Lead (Pb)	0.0002%	max.
Iodate (IO_3)	0.0003%	max.	Magnesium (Mg)	0.001%	max.
Phosphate (PO_4)	0.001%	max.	Sodium (Na)	0.005%	max.

Cat No.	Package	Size
AR1350-P500G	Plastic	500 g
AR1350-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1350-P5KG	Plastic	5 kg
AR1350-P25KG	Plastic	25 kg

POTASSIUM PERSULFATE



$K_2S_2O_8$	FW. 270.33	Density =	2.48 g/cm^3
CAS-No.	7727-21-1	Melting Point	100 °C
UN No.	1492		
EC No.	231-781-8	EC-Index-No	016-061-00-1
Class:	5.1	Packing group	III

Danger

GHS: H272, H302, H315, H317, H334, H335; P210, P220, P261, P264, P270, P271, P272, P280, P284, P301 + P317, P302 + P352, P304 + P340, P305 + P351 + P338, P330, P333 + P317, P337 + P317, P342 + P316, P362 + P364, P403 + P233, P405

Potassium Persulfate, AR — Code AR1477

Specifications

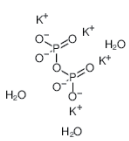
(Meet A.C.S. Specifications)

Assay (Oxidizing powder)	99.0%	min.	Heavy metals (as Pb)	0.001%	max.
Chlorine compound (as Cl)	0.001%	max.	Iron (Fe)	0.0005%	max.
Insoluble matter	0.005%	max.	Manganese (Mn)	0.0002%	max.
Nitrogen compounds (as N)	0.001%	max.			

Cat No.	Package	Size
AR1477-P500G	Plastic	500 g
AR1477-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1477-P5KG	Plastic	5 kg
AR1477-P25KG	Plastic	25 kg

POTASSIUM PYROPHOSPHATE TRIHYDRATE



$K_4P_2O_7 3H_2O$	FW. 384.38	Density =	2.61 g/cm^3
CAS-No.	7790-67-2	Melting Point	1100 °C
EC No.	230-785-7	EC-Index-No	017-014-00-8

Danger

GHS: H319; P264, P280, P305 + P351 + P338, P337 + P317

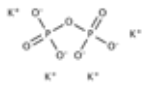
Potassium Pyrophosphate Trihydrate, AR — Code AR1258

Specifications

Assay	99.0%	min.	Arsenic (As)	0.0002%	max.
Insoluble in water	0.01%	max.	Copper (Cu)	0.002%	max.
Chloride (Cl)	0.003%	max.	Iron (Fe)	0.001%	max.
Sulfate (SO_4)	0.01%	max.	Nickel (Ni)	0.002%	max.
Heavy Metals	0.0005%	max.	Titanium (Ti)	0.03%	max.

Cat No.	Package	Size
AR1258-P500G	Plastic	500 g

POTASSIUM PYROPHOSPHATE



$K_4P_2O_7$ FW. 330.34
CAS-No. 7320-34-5 Melting Point 1100 °C
EC No. 230-785-7 EC-Index-No 017-014-00-8

Danger

GHS: H319; P264, P280, P305 + P351 + P338, P337 + P317

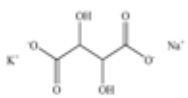
Potassium Pyrophosphate, AR — Code AR1345

Specifications

Assay	99.0%	min.	Arsenic (As)	0.0002%	max.
Insoluble in water	0.01%	max.	Copper (Cu)	0.002%	max.
Chloride (Cl)	0.003%	max.	Iron (Fe)	0.001%	max.
Sulfate (SO_4)	0.01%	max.	Nickel (Ni)	0.002%	max.
Heavy Metals	0.0005%	max.	Titanium (Ti)	0.03%	max.

Cat No.	Package	Size
AR1345-P500G	Plastic	500 g

POTASSIUM SODIUM (+) TARTRATE TETRAHYDRATE



$C_4H_4KNaO_6 4H_4O$ FW. 282.23
CAS-No. 6381-59-5 Melting Range 70 - 80 °C
EC No. 205-698-2

Potassium Sodium (+) Tartrate Tetrahydrate, AR — Code AR1160

Specifications

Description	Colorless crystalline powder		Phosphate (PO_4)	0.001%	max.
Assay	99.0%	min.	Sulfate (SO_4)	0.005%	max.
pH (5% solution 20 °C)	7.0 - 8.5		Heavy metals (as Pb)	0.0005%	max.
Reducing substances	Passes test		Calcium (Ca)	0.004%	max.
Total nitrogen (N)	0.002%	max.	Iron (Fe)	0.0005%	max.
Chloride (Cl)	0.0005%	max.			

Cat No.	Package	Size
AR1160-P500G	Plastic	500 g
AR1160-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1160-P5KG	Plastic	5 kg
AR1160-P25KG	Plastic	25 kg

POTASSIUM SULFATE

K_2SO_4	FW. 174.26	Density =	2.66 g/cm^3
CAS-No.	7778-80-5	Melting Point	1067 °C
EC No.	231-915-5	Boiling point	1689 °C

Potassium Sulfate, AR — Code AR1291

Specifications (Meet A.C.S. Specifications)

Assay	99.0%	min.	Heavy metals (as Pb)	0.0005%	max.
Identification	Passes test		Calcium (Ca)	0.01%	max.
pH (5% solution at 25 °C)	5.5 - 8.5		Iron (Fe)	0.0005%	max.
Insoluble matter	0.01%	max.	Magnesium (Mg)	0.005%	max.
Chloride (Cl)	0.001%	max.	Sodium (Na)	0.02%	max.
Nitrogen compounds (as N)	0.0005%	max.			

Cat No.	Package	Size
AR1291-P500G	Plastic	500 g
AR1291-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1291-P5KG	Plastic	5 kg
AR1291-P25KG	Plastic	25 kg

PROPAN-1-OL

$CH_2CH_2CH_2OH$	FW. 60.10	Density =	0.804 kg/L
CAS-No.	71-23-8	Melting Point	- 127 °C
UN No.	1274	Boiling Point	97 °C
EC No.	200-746-9	EC-Index-No	603-003-00-0
Class:	3	Packing group	II

Danger

GHS: H225, H318, H336; P210, P233, P240, P242, P243, P261, P280, P303 + P361 + P353, P304 + P340, P305 + P354 + P338

Propan-1-ol, AR — Code AR1161

Specifications (Meet A.C.S. Specification)

Assay (by GC.)	99.5%	min.	Ethanol (GC.)	0.01%	max.
Color (APHA)	10	max.	Methanol (GC.)	0.01%	max.
Water (by Coulometry)	0.1%	max.	2-Propanol (GC.)	0.05%	max.
Acidity (mEq./g.)	0.0004	max.	Carbonyl Compounds (as C_2H_5CHO)	0.03%	max.
Residue on Evaporation	0.001%	max.	Solubility in water	Passes test	

Cat No.	Package	Size
AR1161-G500ML	Glass	500 mL
AR1161-G1L	Glass	1 L
AR1161-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1161-G4L	Glass	4 L
AR1161-M25L	Metal	25 L
AR1161-M200L	Metal	200 L

Propan-1-ol, RCI Premium — Cod RP1161

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Solubility in water	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0004	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.01%	max.
Ethanol (GC.)	0.01%	max.
Methanol (GC.)	0.01%	max.
2-Propanol (GC.)	0.05%	max.
Carbonyl Compounds (as C_4H_5CHO)	0.03%	max.
Matter discoloured by H_2SO_4 (APHA)	10	max.
Chloride (Cl)	300	ppb max.
Nitrate (NO_3)	300	ppb max.
Phosphate (PO_4)	500	ppb max.

Sulfate (SO_4)	1000	ppb max.
Substances reducing permanganate (as O)	2	ppm max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1161-G500ML	Glass	500 mL
RP1161-G1L	Glass	1 L
RP1161-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1161-G4L	Glass	4 L
RP1161-M25L	Metal	25 L
RP1161-M200L	Metal	200 L

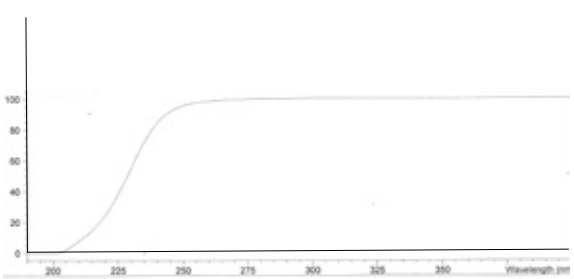
Propan-1-ol, HPLC — Cod LC1161

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
UV Transmission Levels (%T)		
300 nm	99%	min.
270 nm	98%	min.
250 nm	90%	min.
240 nm	80%	min.
230 nm	70%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1161-G500ML	Glass	500 mL
LC1161-G1L	Glass	1 L

Cat No.	Package	Size
LC1161-G2.5L	Glass	2.5 L
LC1161-G4L	Glass	4 L

Propan-1-ol, VLSI — Cod VL1161

Specifications

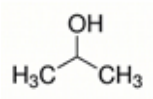
Assay (by GC.)	99.5%	min.
Identity	Corresponds to IR spectrum	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.4	max.
Alkalinity (µEq./g.)	0.2	max.
Residue on Evaporation	5	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	50	ppb max.
Antimony (Sb)	10	ppb max.
Arsenic (As)	10	ppb max.
Barium (Ba)	10	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	10	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	10	ppb max.

Gold (Au)	10	ppb max.
Indium (In)	10	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	50	ppb max.
Manganese (Mn)	10	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	10	ppb max.
Platinum (Pt)	20	ppb max.
Potassium (K)	20	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	10	ppb max.
Thallium (Tl)	10	ppb max.
Tin (Sn)	10	ppb max.
Titanium (Ti)	10	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	10	ppb max.
Zirconium (Zr)	10	ppb max.
Particle/ml :		
0.5 µm and greater	100	max.

Cat No.	Package	Size
VL1161-G500ML	Glass	500 mL
VL1161-G1L	Glass	1 L
VL1161-G2.5L	Glass	2.5 L
VL1161-G4L	Glass	4 L

Cat No.	Package	Size
VL1161-P2.5L	Plastic	2.5 L
VL1161-P4L	Plastic	4 L
VL1161-P20L	Plastic	20 L

PROPAN-2-OL 75%



$(CH_3)_2CHOH$	FW. 60.10	Density =	0.860 - 0.865 kg/L
CAS-No.	67-63-0		
UN No.	1219		
EC No.	200-661-7	EC-Index-No	603-117-00-0
Class:	3	Packing group	II

Danger

GHS: H225, H319, H336; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Propan-2-ol 75%, AR — Code AR1509

Specifications

Assay (by GC.- correct for water)	75%	% v/v min.	Residue on Evaporation	0.001%	max.
Color (APHA)	10	max.	Carbonyl Compounds	0.002%	max.
Water (by Coulometry	25%	v/v max.	(as propionaldehyde or acetone)		
Acidity (mEq./g.)	0.0001	max.	Solubility in water	Passes test	

Cat No.	Package	Size
AR1509-G500ML	Glass	500 mL
AR1509 -G1L	Glass	1 L
AR1509-G2.5L	Glass	2.5 L
AR1509-G4L	Glass	4 L
AR1509-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1509-P4L	Plastic	4 L
AR1509-P20L	Plastic	20 L
AR1509-P200L	Plastic	200 L
AR1509-P25L	Plastic	25 L
AR1509-P200L	Plastic	200 L

PROPAN-2-OL 80%

$(CH_3)_2CHOH$	FW. 60.10	Density =	0.848 kg/L
CAS-No.	67-63-0	Melting Point	- 89.5 °C
UN No.	1219	Boiling Point	82.4 °C
EC No.	200-661-7	EC-Index-No	603-117-00-0
Class:	3	Packing group	II

Danger

GHS: H225, H319, H336; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Propan-2-ol 80%, Pharma — Code BP1157

Specifications (Conforms to Ph.Eur, BP, USP/NF,JP, ACS)

Assay (by GC.)	80%	min.	1-Propanol (GC.)	0.1%	max.
Appearance	Clear and colorless liquid		2-Butanol (GC.)	0.1%	max.
Identity	Passes test		Total Volatile Impurity (GC.)	1.0%	max.
Color (APHA)	10	max.	Solubility in water	Passes test	
Water (by Coulometry)	20%	max.	Peroxide	Passes test	
Acidity (mEq./g)	0.0001	max.	UV Absorbance		
Alkalinity (mEq./g)	0.0001	max.	310 nm	0.01	AU max.
Acidity or Alkalinity	Passes test		290 nm	0.02	AU max.
Residue on Evaporation	0.002%	max.	270 nm	0.03	AU max.
Benzene and related substances	Passes test		250 nm	0.10	AU max.
Acetone (GC.)	0.002%	max.	230 nm	0.30	AU max.
Propionaldehyde (GC.)	0.002%	max.	Relative density @ 20 °C	0.847 - 0.849	
Diethyl Ether (GC.)	0.1%	max.	Refractive Index @20 °C	1.376 - 1.378	
Diisopropyl Ether (GC.)	0.1%	max.			

Cat No.	Package	Size
BP1157-G500ML	Glass	500 mL
BP1157 -G1L	Glass	1 L
BP1157-G2.5L	Glass	2.5 L
BP1157-G4L	Glass	4 L
BP1157-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
BP1157-P4L	Plastic	4 L
BP1157-P20L	Plastic	20 L
BP1157-P200L	Plastic	200 L
BP1157-P25L	Plastic	25 L
BP1157-P200L	Plastic	200 L

PROPAN-2-OL 95%

$(CH_3)_2CHOH$	FW. 60.10	Density =	0.800 - 0.805 kg/L
CAS-No.	67-63-0		
UN No.	1219		
EC No.	200-661-7	EC-Index-No	603-117-00-0
Class:	3	Packing group	II

Danger

GHS: H225, H319, H336; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Propan-2-ol 95%, AR — Code AR1510

Specifications

Assay (by GC.- correct for water)	95%	% v/v min.	Residue on Evaporation	0.001%	max.
Color (APHA)	10	max.	Carbonyl Compound	0.002%	max.
Water (by Coulometry)	5%	% v/v min.	(as propionaldehyde or acetone)		
Acidity (mEq./g.)	0.0001	max.	Solubility in water	Passes test	

Cat No.	Package	Size
AR1510-G500ML	Glass	500 mL
AR1510 -G1L	Glass	1 L
AR1510-G2.5L	Glass	2.5 L
AR1510-G4L	Glass	4 L
AR1510-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1510-P4L	Plastic	4 L
AR1510-P20L	Plastic	20 L
AR1510-P200L	Plastic	200 L
AR1510-M25L	Metal	25 L
AR1510-M200L	Metal	200 L

PROPAN-2-OL

$(CH_3)_2CHOH$	FW. 60.10	Density =	0.786 kg/L
CAS-No.	67-63-0	Melting Point	-89.5 °C
UN No.	1219	Boiling Point	82.4 °C
EC No.	200-661-7	EC-Index-No	603-117-00-0
Class:	3	Packing group	II

Danger

GHS: H225, H319, H336; P210, P233, P240, P242, P243, P261, P264, P271, P280, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P319, P337 + P317, P403 + P235, P405

Propan-2-ol, AR — Code AR1162

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.	Residue on Evaporation	0.001%	max.
Color (APHA)	10	max.	Carbonyl Compounds	0.002%	max.
Water (by Coulometry)	0.1%	max.	(as propionaldehyde or acetone)		
Acidity (mEq./g.)	0.0001	max.	Solubility in water	Passes test	

Cat No.	Package	Size
AR1162-G500ML	Glass	500 mL
AR1162-G1L	Glass	1 L
AR1162-G2.5L	Glass	2.5 L
AR1162-G4L	Glass	4 L

Cat No.	Package	Size
AR1162-P2.5L	Plastic	2.5 L
AR1162-P4L	Plastic	4 L
AR1162-P20L	Plastic	20 L
AR1162-P200L	Plastic	200 L

Propan-2-ol, RCI Premium — Code RP1162

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Solubility in water	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0001	max.
Alkalinity (mEq./g.)	0.0001	max.
Residue on Evaporation	0.001%	max.
Acetone (GC.)	0.01%	max.
Ethanol (GC.)	0.01%	max.
Isopropylether (GC.)	0.01%	max.
Methanol (GC.)	0.01%	max.
1-Propylalcohol (GC.)	0.1%	max.
Carbonyl Compounds	0.002%	max.
(as propionaldehyde or acetone)		
Chloride (Cl)	0.3	ppm max.
Nitrate (NO_3)	0.3	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Sulfate (SO_4)	1	ppm max.
Substances reducing permanganate (as O)	2	ppm max.
UV Absorbance		
310 nm	0.01	max.
290 nm	0.02	max.
270 nm	0.03	max.
250 nm	0.10	max.
230 nm	0.30	max.
Aluminium (Al)	0.5	ppm max.
Antimony (Sb)	0.02	ppm max.
Arsenic (As)	0.02	ppm max.

(Meet A.C.S. Specifications and BP/EP/USP/NF)

Barium (Ba)	0.1	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.02	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.5	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.02	ppm max.
Gold (Au)	0.02	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Lithium (Li)	0.05	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.02	ppm max.
Nickel (Ni)	0.02	ppm max.
Silver (Ag)	0.02	ppm max.
Thallium (Tl)	0.02	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.02	ppm max.
Vanadium (V)	0.02	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.02	ppm max.
Relative density @ 20 °C	0.785 - 0.789	
Relative density @ 25 °C	0.783 - 0.787	
Refractive Index @ 20 °C	1.376 - 1.378	

Cat No.	Package	Size
RP1162-G500ML	Glass	500 mL
RP1162-G1L	Glass	1 L
RP1162-G2.5L	Glass	2.5 L
RP1162-G4L	Glass	4 L

Cat No.	Package	Size
RP1162-P2.5L	Plastic	2.5 L
RP1162-P4L	Plastic	4 L
RP1162-P20L	Plastic	20 L
RP1162-P200L	Plastic	200 L

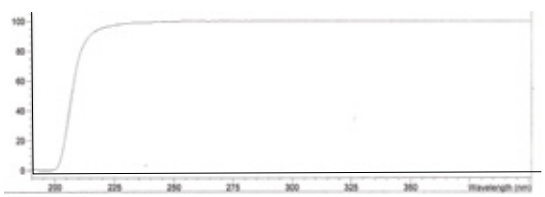
Propan-2-ol, HPLC — Code LC1162

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Carbonyl Compounds	0.002%	max.
(as propionaldehyde or acetone)		
Solubility in water	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	80%	min.
220 nm	60%	min.
210 nm	40%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1162-G500ML	Glass	500 mL
LC1162-G1L	Glass	1 L

Cat No.	Package	Size
LC1162-G2.5L	Glass	2.5 L
LC1162-G4L	Glass	4 L

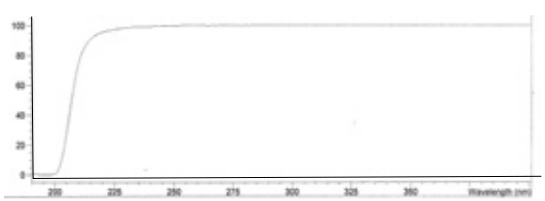
Propan-2-ol, HPLC Plus — Code LC1163

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Carbonyl Compounds	0.002%	max.
(as propionaldehyde or acetone)		
Solubility in water	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	80%	min.
220 nm	60%	min.
210 nm	40%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1163-G500ML	Glass	500 mL
LC1163-G1L	Glass	1 L

Cat No.	Package	Size
LC1163-G2.5L	Glass	2.5 L
LC1163-G4L	Glass	4 L

Propan-2-ol, Super Gradient for HPLC — Code SG1162

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Carbonyl Compounds	0.002%	max.
(as propionaldehyde or acetone)		
Solubility in water	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
230 nm	90%	min.
220 nm	80%	min.
Gradient Specification		
at 235 nm	1.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	0.5	ppb max.

Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments. Product passed through 0.2 micron final filter.

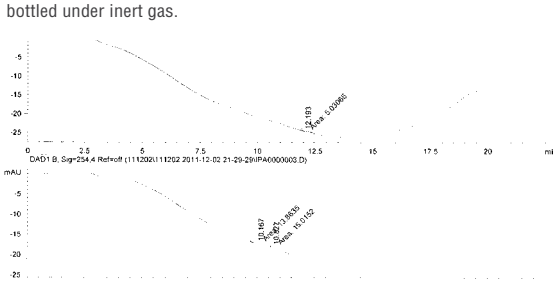
Cat No.	Package	Size
SG1162-G500ML	Glass	500 mL
SG1162-G1L	Glass	1 L
SG1162-G2.5L	Glass	2.5 L
SG1162-G4L	Glass	4 L

Propan-2-ol, LC-MS — Code LM1162

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Carbonyl Compounds	0.002%	max.
(as propionaldehyde or acetone)		
Solubility in water	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	80%	min.
210 nm	40%	min.
Gradient Specification		
at 235 nm	1.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	0.5	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	20	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Sodium (Na)	20	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS	20	ppb max.
(ESI positive as Reserpine)		

Product passed through 0.1 micron final filter and bottled under inert gas.



Cat No.	Package	Size
LM1622-G500ML	Glass	500 mL
LM1622-G1L	Glass	1 L
LM1622-G2.5L	Glass	2.5 L
LM1622-G4L	Glass	4 L

Propan-2-ol, ULC-MS — Code UM1162

Specifications

Assay (by GC.)	99.98%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0001	max.
Residue on Evaporation	0.0001%	max.
Carbonyl Compounds	0.002%	max.
(as propionaldehyde or acetone)		
Solubility in water	Passes test	
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	90%	min.
220 nm	80%	min.
210 nm	40%	min.
Gradient Specification		
at 235 nm	1.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.3	ppb max.
at 365 nm	0.3	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.
Bismuth (Bi)	10	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	20	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	20	ppb max.
Strontium (Sr)	10	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS	5	ppb max.
(ESI positive as Reserpine)		
Suitable for LC-MS	20	ppb max.
(ESI negative as Reserpine)		

Suitable for UHPLC / Ultra HPLC / CC / SFC - instruments.

Product passed through 0.1 micron final filter and bottled under inert gas.

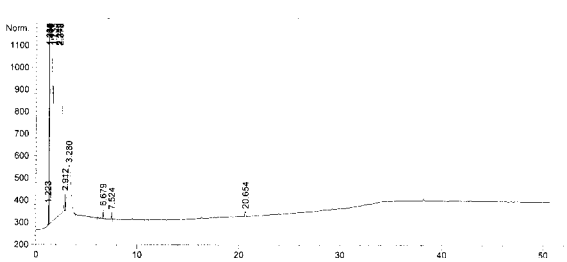
Cat No.	Package	Size
UM1162-G500ML	Glass	500 mL
UM1162-G1L	Glass	1 L

Cat No.	Package	Size
UM1162-G2.5L	Glass	2.5 L
UM1162-G4L	Glass	4 L

Propan-2-ol, Pesticide — Code PC1162

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1162-G500ML	Glass	500 mL
PC1162-G1L	Glass	1 L

Cat No.	Package	Size
PC1162-G2.5L	Glass	2.5 L
PC1162-G4L	Glass	4 L

Propan-2-ol, LVI-GC — Code LV1162

Specifications

Assay (by GC.)	99.95%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.

Substances darkened by sulfuric acid	Passes test	
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1162-G500ML	Glass	500 mL
LV1162-G1L	Glass	1 L

Cat No.	Package	Size
LV1162-G2.5L	Glass	2.5 L
LV1162-G4L	Glass	4 L

Propan-2-ol, UV-IR — Code IR1162

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
260 nm	98%	min.

250 nm	95%	min.
230 nm	75%	min.
220 nm	55%	min.
210 nm	25%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1162-G500ML	Glass	500 mL
IR1162-G1L	Glass	1 L

Cat No.	Package	Size
IR1162-G2.5L	Glass	2.5 L
IR1162-G4L	Glass	4 L

Propan-2-ol, Peptide Synthesis — Code PS1162

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.

Cat No.	Package	Size
PS1162-G500ML	Glass	500 mL
PS1162-G1L	Glass	1 L

Cat No.	Package	Size
PS1162-G2.5L	Glass	2.5 L
PS1162-G4L	Glass	4 L

Propan-2-ol, Semig — Code SM1162

Specifications

Assay (by GC.)	99.9%	min.	Chromium (Cr)	0.1	ppm max.
Color (APHA)	10	max.	Copper (Cu)	0.01	ppm max.
Water (by Coulometry)	0.05%	max.	Gold (Au)	0.1	ppm max.
Acidity (µEq./g.)	0.2	max.	Iron (Fe)	0.1	ppm max.
Alkalinity (µEq./g.)	0.1	max.	Lead (Pb)	0.1	ppm max.
Solubility in water	Passes Test		Magnesium (Mg)	0.1	ppm max.
Residue on Evaporation	5	ppm max.	Manganese (Mn)	0.1	ppm max.
Chloride (Cl)	0.2	ppm max.	Nickel (Ni)	0.01	ppm max.
Phosphate (PO_4)	0.5	ppm max.	Potassium (K)	0.1	ppm max.
Aluminium (Al)	0.1	ppm max.	Sodium (Na)	0.1	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.	Tin (Sn)	0.1	ppm max.
Boron (B)	0.1	ppm max.	Titanium (Ti)	0.1	ppm max.
Calcium (Ca)	0.1	ppm max.	Zinc (Zn)	0.1	ppm max.

Cat No.	Package	Size
SM1162-G500ML	Glass	500 mL
SM1162-G1L	Glass	1 L
SM1162-G2.5L	Glass	2.5 L
SM1162-G4L	Glass	4 L

Cat No.	Package	Size
SM1162-P2.5L	Plastic	2.5 L
SM1162-P4L	Plastic	4
SM1162-P20L	Plastic	20 L
SM1162-P200L	Plastic	200 L

Propan-2-ol, Semig Plus — Code SM1163

Specifications

Assay (by GC.)	99.9%	min.	Chromium (Cr)	0.02	ppm max.
Appearance	Colorless		Copper (Cu)	0.001	ppm max.
Color (APHA)	10	max.	Gold (Au)	0.05	ppm max.
Water (by Coulometry)	0.05%	max.	Iron (Fe)	0.03	ppm max.
Acidity (as $CH3_3COOH$)	0.001%	max.	Lead (Pb)	0.005	ppm max.
Specific resistance(MΩ.cm)	10	max.	Lithium (Li)	0.02	ppm max.
Residue on Evaporation	5	ppm max.	Magnesium (Mg)	0.02	ppm max.
Chloride (Cl)	0.2	ppm max.	Manganese (Mn)	0.01	ppm max.
Phosphate (PO4)	0.5	ppm max.	Nickel (Ni)	0.01	ppm max.
Aluminium (Al)	0.05	ppm max.	Potassium (K)	0.05	ppm max.
Arsenic (As)	0.01	ppm max.	Silver (Ag)	0.05	ppm max.
Antimony (Sb)	0.01	ppm max.	Sodium (Na)	0.05	ppm max.
Barium (Ba)	0.05	ppm max.	Strontium (Sr)	0.01	ppm max.
Boron (B)	0.01	ppm max.	Tin (Sn)	0.05	ppm max.
Cadmium (Cd)	0.05	ppm max.	Titanium (Ti)	0.01	ppm max.
Calcium (Ca)	0.05	ppm max.	Zinc (Zn)	0.02	ppm max

Cat No.	Package	Size
SM1163-G500ML	Glass	500 mL
SM1163-G1L	Glass	1 L
SM1163-G2.5L	Glass	2.5 L
SM1163-G4L	Glass	4 L

Cat No.	Package	Size
SM1163-P2.5L	Plastic	2.5 L
SM1163-P4L	Plastic	4
SM1163-P20L	Plastic	20 L
SM1163-P200L	Plastic	200 L

Propan-2-ol, Electropure — Code EP1162

Specifications

Assay (by GC.)	99.9%	min.
Identity	Corresponds to IR spectrum	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µ Eq./g.)	0.2	max.
Alkalinity (µ Eq./g.)	0.1	max.
Specific resistance (MΩ.cm)	10	min.
Residue on Evaporation	5	ppm max.
Aldehyde and Ketones (as propionic aldehyde)	100	ppm max.
Chloride(Cl)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Solubility in Water	Passes test	
Heavy metals (as Pb)	0.2	ppm max.
Aluminium (Al)	0.1	ppm max.
Antimony (Sb)	0.01	ppm max.
Arsenic (As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.05	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.01	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.02	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.2	ppm max.

Cat No.	Package	Size
EP1162-G500ML	Glass	500 mL
EP1162-G1L	Glass	1 L
EP1162-G2.5L	Glass	2.5 L
EP1162-G4L	Glass	4 L

Cat No.	Package	Size
EP1162-P2.5L	Plastic	2.5 L
EP1162-P4L	Plastic	4 L
EP1162-P20L	Plastic	20 L
EP1162-P200L	Plastic	200 L

Propan-2-ol, Extropure — Code XP1162

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.2	max.
Alkalinity (µEq./g.)	0.1	max.
Solubility in water	Passes test	
Residue on Evaporation	3	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Heavy metals (as Pb)	200	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	30	ppb max.
Germanium (Ge)	30	ppb max.

Gold (Au)	20	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	100	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	100	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	
Particle/ml :		
0.5 µm and greater	50	max.
1.0 µm and greater	8	max.

Cat No.	Package	Size
XP1162-G500ML	Glass	500 mL
XP1162-G1L	Glass	1 L
XP1162-G2.5L	Glass	2.5 L
XP1162-G4L	Glass	4 L

Cat No.	Package	Size
XP1162-P2.5L	Plastic	2.5 L
XP1162-P4L	Plastic	4 L
XP1162-P20L	Plastic	20 L
XP1162-P200L	Plastic	200 L

Propan-2-ol, Extroplus — Code XP1163

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µ Eq./g.)	0.2	max.
Alkalinity (µEq./g.)	0.1	max.
Solubility in water	Passes test	
Residue on Evaporation	3	ppm max.
All anions (Br, Cl, F, NO_2, NO_3, SO_4, PO_4)	0.2	ppm max.
Heavy metals (as Pb)	200	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	30	ppb max.
Germanium (Ge)	30	ppb max.
Gold (Au)	20	ppb max.

Iron (Fe)	50	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	100	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	100	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	
pH	6 - 7	
Particle/ml :		
0.5 µm and greater	50	max.
1.0 µm and greater	8	max.

Cat No.	Package	Size
XP1163-G500ML	Glass	500 mL
XP1163-G1L	Glass	1 L
XP1163-G2.5L	Glass	2.5 L
XP1163-G4L	Glass	4 L

Cat No.	Package	Size
XP1163-P2.5L	Plastic	2.5 L
XP1163-P4L	Plastic	4 L
XP1163-P20L	Plastic	20 L
XP1163-P200L	Plastic	200 L

Propan-2-ol, Extropure Plus — Code XP1277

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.2	max.
Alkalinity (µEq./g.)	0.1	max.
Solubility in water	Passes test	
Residue on Evaporation	3	ppm max.
Bromide (Br)	0.01	ppm max.
Chloride (Cl)	0.05	ppm max.
Fluoride (F)	0.01	ppm max.
Nitrate (NO_3)	0.03	ppm max.
Nitrite (NO_2)	0.03	ppm max.
Sulfate (SO_4)	0.03	ppm max.
Phosphate (PO_4)	0.01	ppm max.
pH Value	6 - 9	
Heavy metals (as Pb)	100	ppb max.
Aluminium (Al)	20	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	10	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	10	ppb max.
Boron (B)	5	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	10	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Gallium (Ga)	10	ppb max.

Gold (Au)	10	ppb max.
Indium (In)	10	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	5	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	5	ppb max.
Platinum (Pt)	20	ppb max.
Potassium (K)	10	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	5	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	5	ppb max.
Thallium (Tl)	10	ppb max.
Tin (Sn)	10	ppb max.
Titanium (Ti)	10	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	5	ppb max.
Zirconium (Zr)	10	ppb max.
Silicone oil	Free	
DOP	Free	
Amide	Free	
Particle/ml :		
0.5 µm and greater	50	max.
1.0 µm and greater	8	max.

Cat No.	Package	Size
XP1277-G500ML	Glass	500 mL
XP1277-G1L	Glass	1 L
XP1277-G2.5L	Glass	2.5 L
XP1277-G4L	Glass	4 L

Cat No.	Package	Size
XP1277-P2.5L	Plastic	2.5 L
XP1277-P4L	Plastic	4 L
XP1277-P20L	Plastic	20 L
XP1277-P200L	Plastic	200 L

Propan-2-ol, Extropure-MS — Code XP1292

Specifications

Assay (by GC.)	99.9%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.2	max.
Alkalinity (µEq./g.)	0.1	max.
Solubility in water	Passes test	
Residue on Evaporation	3	ppm max.
Chloride (Cl)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Heavy metals (as Pb)	200	ppb max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	10	ppb max.
Barium (Ba)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	50	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	30	ppb max.
Germanium (Ge)	30	ppb max.
Gold (Au)	20	ppb max.

Iron (Fe)	50	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	20	ppb max.
Manganese (Mn)	20	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	100	ppb max.
Silicon (Si)	50	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	100	ppb max.
Titanium (Ti)	20	ppb max.
Zinc (Zn)	50	ppb max.
Hydrocarbons Content (Between C10 - C40)	Not detectable	
Silicone oil	Not detectable	
DOP	Not detectable	
Amide	Not detectable	
Particle/ml :		
0.5 µm and greater	50	max.
1.0 µm and greater	8	max.

Cat No.	Package	Size
XP1292-G500ML	Glass	500 mL
XP1292-G1L	Glass	1 L
XP1292-G2.5L	Glass	2.5 L
XP1292-G4L	Glass	4 L

Cat No.	Package	Size
XP1292-P2.5L	Plastic	2.5 L
XP1292-P4L	Plastic	4 L
XP1292-P20L	Plastic	20 L
XP1292-P200L	Plastic	200 L

Propan-2-ol, VLSI — Code VL1162

Specifications

Assay (by GC.)	99.9%	min.
Identity	Corresponds to IR spectrum	
Color (APHA)	10	max.
Water (by Coulometry)	0.05%	max.
Acidity (µEq./g.)	0.2	max.
Alkalinity (µEq./g.)	0.1	max.
Specific resistance (MΩ.cm)	10	min.
Residue on Evaporation	3	ppm max.
Aldehyde and Ketones (as propionic aldehyde)	50	ppm max.
Substances reducing permanganate (as O)	2.5	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Sulfate (SO_4)	1.0	ppm max.
Heavy metals (as Pb)	0.1	ppm max.
Aluminium (Al)	20	ppb max.
Antimony (Sb)	10	ppb max.
Arsenic (As)	10	ppb max.
Barium (Ba)	10	ppb max.
Beryllium (Be)	10	ppb max.
Bismuth (Bi)	10	ppb max.
Boron (B)	5	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	10	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Gallium (Ga)	10	ppb max.
Gold (Au)	10	ppb max.
Indium (In)	10	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	5	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	10	ppb max.
Platinum (Pt)	20	ppb max.
Silver (Ag)	5	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	5	ppb max.
Thallium (Tl)	10	ppb max.
Tin (Sn)	10	ppb max.
Titanium (Ti)	10	ppb max.
Vanadium (V)	10	ppb max.
Zinc (Zn)	5	ppb max.
Zirconium (Zr)	10	ppb max.
Particle/ml :		
0.5 µm and greater	30	max.
1.0 µm and greater	8	max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1162-G500ML	Glass	500 mL
VL1162-G1L	Glass	1 L
VL1162-G2.5L	Glass	2.5 L
VL1162-G4L	Glass	4 L

Cat No.	Package	Size
VL1162-P2.5L	Plastic	2.5 L
VL1162-P4L	Plastic	4 L
VL1162-P20L	Plastic	20 L
VL1162P200L	Plastic	200 L

Propan-2-ol, Pharma — Code BP1162

Specifications

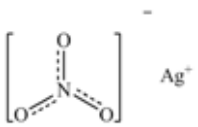
(Meets Ph.Eur, BP, USP/NF, JP, ACS)

Assay (by GC.)	99.8%	min.
Identity	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.2%	max.
Acidity (µEq./g.)	0.0001	max.
Alkalinity (µEq./g.)	0.0001	max.
Acidity or Alkalinity	Passes test	
Residue on Evaporation	0.002%	max.
Benzene and related substances	Passes test	
Acetone (GC.)	0.002%	max.
Propionaldehyde (GC.)	0.002%	max.
Diethyl Ether (GC.)	0.1%	max.
Diisopropyl Ether (GC.)	0.1%	max.
1-Propanol (GC.)	0.1%	max.
2-Butanol (GC.)	0.1%	max.
Total Volatile Impurity (GC.)	1.0%	max.
Solubility in water	Passes test	
Peroxide	Passes test	
UV Absorbance		
310 nm	0.01	AU max.
290 nm	0.02	AU max.
270 nm	0.03	AU max.
250 nm	0.10	AU max.
230 nm	0.30	AU max.
Relative density @ 20 °C	0.785 - 0.789	
Relative density @ 25 °C	0.783 - 0.787	
Refractive Index @ 20 °C	1.376 - 1.378	

Cat No.	Package	Size
BP1162-G500ML	Glass	500 mL
BP1162-G1L	Glass	1 L
BP1162-G2.5L	Glass	2.5 L

Cat No.	Package	Size
BP1162-G4L	Glass	4 L
BP1162-P25L	Metal	25 L
BP1162-P200L	Metal	200 L

SILVER NITRATE



$AgNO_3$	FW. 169.87	Density =	4.35 g/cm^3
CAS-No.	7761-88-8	Melting Point	212°C
UN No.	1493	Boiling Point	444°C
EC No.	231-853-9	EC-Index-No	047-001-00-2
Class:	5.1	Packing Group:	II

Danger

GHS: H272, H290, H314, H410; P210, P220, P234, P260, P264, P273, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P391, P405, P406

Silver Nitrate, AR — Code AR1246

Specifications

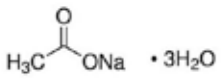
Assay	99.8%	min.
Appearance	Colorless white crystals / powder	
Moisture	0.06%	max.
Substances insoluble in water	0.01%	max.
Substances not precipitated by HCl	0.06%	max.

Chloride (Cl)	0.001%	max.
Sulfate (SO_4)	0.01%	max.
Copper (Cu)	0.002%	max.
Iron (Fe)	0.001%	max.
Lead (Pb)	0.002%	max.
Zinc (Zn)	0.002%	max.

Cat No.	Package	Size
AR1246-P25G	Plastic	25 g

Cat No.	Package	Size
AR1246-P100G	Plastic	100 g

SODIUM ACETATE TRIHYDRATE



$CH_3COONa.3H_2O$	FW. 136.08	Density =	1.42 g/cm^3
CAS-No.	6131-90-4	Melting Point	58 °C
EC No.	204-823-8		

Sodium Acetate Trihydrate, AR — Code AR1165

Specifications

Description	White crystalline powder		Sulfate (SO_4)	0.002%	max.
Assay	99.5%	min.	Aluminium (Al)	0.0005%	max.
pH (5% Water)	7.5 – 9.0		Calcium (Ca)	0.001%	max.
Insoluble matter	0.001%	max.	Copper (Cu)	0.0005%	max.
Substances reducing permanganate (as O)	0.004%	max.	Iron (Fe)	0.0005%	max.
Nitrogen Compound (N)	0.001%	max.	Lead (Pb)	0.0005%	max.
Chloride (Cl)	0.0005%	max.	Magnesium (Mg)	0.0005%	max.
Phosphate (PO_4)	0.0002%	max.	Potassium (K)	0.0005%	max.

Cat No.	Package	Size
AR1165-P500G	Plastic	500 g
AR1165-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1165-P5KG	Plastic	5 kg
AR1165-P25KG	Plastic	25 kg

Sodium Acetate Trihydrate, Pharma — Code BP1165

Specifications

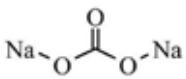
(Meets Ph.Eur, BP, USP/NF, JP)

Assay	99.5%	min.	Chloride (Cl)	0.01%	max.
Appearance	Colorless crystal		Sulfate (SO_4)	0.005%	max.
Identity	Passes test		Heavy metals (as Pb)	0.001%	max.
Appearance of solution	Clear and colorless		Aluminium (Al)	0.00002%	max.
Solubility	Passes test		Arsenic (As)	0.0002%	max.
Acidity or Alkalinity	Passes test		Calcium (Ca)	0.005%	max.
pH of a 5% solution at 25°C	7.5 – 9.0		Calcium and Magnesium	0.005%	max.
Loss on drying	39.0 - 40.5%		Iron (Fe)	0.001%	max.
Insoluble matter	0.005%	max.	Magnesium (Mg)	0.002%	max.
Reducing substances	Passes test		Potassium (K)	Passes test	
Substances reducing permanganate	Passes test				

Cat No.	Package	Size
BP1165-P500G	Plastic	500 g
BP1165-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1165-P5KG	Plastic	5 kg
BP1165-P25KG	Plastic	25 kg

SODIUM CARBONATE ANHYDROUS



Na_2CO_3	FW. 105.99	Density =	2.53 g/cm^3
CAS-No.	497-19-8	Melting Point	854 °C
		Boiling Point	1600 °C
EC No.	207-838-8	EC-Index-No	011-005-00-2
GHS:	H319; P264, P280, P305 + P351 + P338, P337 + P317		

Warning

Sodium Carbonate Anhydrous, AR — Code AR1247

Specifications

Assay	99.9%	min.
Moisture (at 300°C)	1.0%	max.
Total nitrogen (N)	0.001%	max.
Total sulphur (as SO_4)	0.005%	max.
Chloride (Cl)	0.002%	max.
Phosphate and Silicate (as SiO_2)	0.005%	max.

Heavy metals (as Pb)	0.0005%	max.
Aluminium (Al)	0.001%	max.
Calcium (Ca)	0.005%	max.
Iron (Fe)	0.0005%	max.
Potassium (K)	0.01%	max.
Magnesium (Mg)	0.0005%	max.

Cat No.	Package	Size
AR1247-P500G	Plastic	500 g
AR1247-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1247-P5KG	Plastic	5 kg
AR1247-P25KG	Plastic	25 kg

Sodium Carbonate Anhydrous, Pharma — Code BP1247

Specifications

(Meets Ph.Eur, BP, USP/NF, JP)

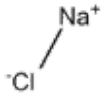
Assay	99.5 - 100.5%
Appearance	White or almost white, Slightly granular powder, hygroscopic
Identity	Passes test
Appearance of solution	Clear and not more intensely coloured than reference solution Y6

Solubility	Passes test	
Alkali Hydroxides and Bicarbonates	Passes test	
Chloride (Cl)	0.0125%	max.
Sulfate (SO_4)	0.025%	max.
Loss on drying	1.0%	max.
Heavy metals (as Pb)	0.001%	max.
Arsenic (As)	0.0005%	max.
Iron (Fe)	0.005%	max.

Cat No.	Package	Size
BP1247-P500G	Plastic	500 g
BP1247-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1247-P5KG	Plastic	5 kg
BP1247-P25KG	Plastic	25 kg

SODIUM CHLORIDE 99%



NaCl	FW. 58.44	Density =	2.17 g/cm^3
CAS-No.	7647-14-5	Melting Point	801 °C
		Boiling Point	1461 °C
EC No.	231-598-3		

Sodium Chloride 99%, AR — Code AR1166

Specifications

(Meet A.C.S. Specifications)

Assay (by argentometry)	99.0%	min.	Sulfate (SO_4)	0.001%	max.
Chlorate and nitrate (as NO_3)	0.003%	max.	Heavy metals (as Pb)	0.0005%	max.
pH of a 5% solution at 25°C	5.0 - 8.0		Barium (Ba)	0.001%	max.
Insoluble matter	0.005%	max.	Calcium (Ca)	0.002%	max.
Nitrogen Compounds (as N)	0.001%	max.	Magnesium (Mg)	0.001%	max.
Bromide (Br)	0.005%	max.	Iron (Fe)	0.0002%	max.
Iodide (I)	0.001%	max.	Potassium (K)	0.005%	max.
Phosphate (PO_4)	0.0005%	max.			

Cat No.	Package	Size
AR1166-P500G	Plastic	500 g
AR1166-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1166-P5KG	Plastic	5 kg
AR1166-P25KG	Plastic	25 kg

Sodium Chloride 99%, Pharma — Code BP1166

Specifications

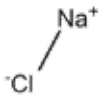
(Meets Ph.Eur, BP, JP, ACS)

Appearance	White or almost white solid		Phosphate (PO_4)	0.0025%	max.
Assay (by argentometry)	99.0%	min.	Sulfate (SO_4)	0.02%	max.
Identity	Passes test		Heavy metals (as Pb)	0.0003%	max.
Appearance of solution	Clear and colorless		Aluminium (Al)	0.00002%	max.
Solubility	Passes test		Arsenic (As)	0.0001%	max.
Acidity or Alkalinity	Passes test		Barium (Ba)	Passes test	
Loss on drying at 105 °C	0.5%	max.	Iron (Fe)	0.0002%	max.
Ferrocyanides	Passes test		Magnesium and Alkaline-earth metals	0.01%	max.
Bromide (Br)	0.01%	max.	Potassium (K)	0.05%	max.
Iodide (I)	Passes test		Bacterial endotoxins	5	IU/g max.
Nitrite (NO_2)	Passes test				

Cat No.	Package	Size
BP1166-P500G	Plastic	500 g
BP1166-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1166-P5KG	Plastic	5 kg
BP1166-P25KG	Plastic	25 kg

SODIUM CHLORIDE 99%



NaCl	FW. 58.44	Density =	2.17 g/cm^3
CAS-No.	7647-14-5	Melting Point	801 °C
		Boiling Point	1461 °C
EC No.	231-598-3		

Sodium Chloride 99.5%, AR — Code AR1167

Specifications

(Meet A.C.S. Specifications)

Assay (by argentometry)	99.5%	min.	Sulfate (SO_4)	0.001%	max.
Chlorate and nitrate (as NO_3)	0.003%	max.	Heavy metals (as Pb)	0.0005%	max.
pH of a 5% solution at 25°C	5.0 - 8.0		Barium (Ba)	0.001%	max.
Insoluble matter	0.005%	max.	Calcium (Ca)	0.002%	max.
Nitrogen Compounds (as N)	0.001%	max.	Magnesium (Mg)	0.001%	max.
Bromide (Br)	0.005%	max.	Iron (Fe)	0.0002%	max.
Iodide (I)	0.001%	max.	Potassium (K)	0.005%	max.
Phosphate (PO_4)	0.0005%	max.			

Cat No.	Package	Size
AR1167-P500G	Plastic	500 g
AR1167-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1167-P5KG	Plastic	5 kg
AR1167-P25KG	Plastic	25 kg

Sodium Chloride 99.5%, Pharma — Code BP1167

Specifications

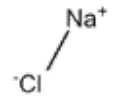
(Meets Ph.Eur, BP, JP, ACS)

Assay (by argentometry)	99.5 - 100.5%		Loss on drying at 105°C, 2h	0.5%	max.
Identification	Passes test		Heavy metals (as Pb)	0.0005%	max.
Appearance of Solution	Passes test		Aluminium (Al)	0.00002%	max.
Acidity or alkalinity	Passes test		Arsenic (As)	0.0001%	max.
Bromide (Br)	0.005%	max.	Barium (Ba)	Passes test	
Iodide (I)	Passes test		Calcium (Ca)	0.002%	max.
Phosphate (PO_4)	0.0025%	max.	Iron (Fe)	0.0002%	max.
Nitrites (NO_2)	Passes test		Magnesium and alkaline-earth metals (as Ca)	0.01%	max.
Sulfate (SO_4)	0.02%	max.	Potassium (K)	0.01%	max.
Ferrocyanide ($Fe(CN)_6$)	Passes test		Residual solvents (ICH Q3C)	Passes test	

Cat No.	Package	Size
BP1167-P500G	Plastic	500 g
BP1167-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1167-P5KG	Plastic	5 kg
BP1167-P25KG	Plastic	25 kg

SODIUM CHLORIDE 99%



NaCl	FW. 58.44	Density =	2.17 g/cm^3
CAS-No.	7647-14-5	Melting Point	801 °C
		Boiling Point	1461 °C
EC No.	231-598-3		

Sodium Chloride 99.9%, AR — Code AR1227

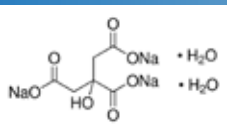
Specifications

Description	White crystalline powder		Ammonium (NH_4)	0.0005%	max.
Assay (by argentometry)	99.9%	min.	Arsenic (As)	0.00004%	max.
Acidity (HCl)	0.0018%	max.	Barium (Ba)	0.001%	max.
Insoluble matter	0.003%	max.	Calcium (Ca)	0.002%	max.
Ferrocyanide ($Fe(CN)_6$)	0.0001%	max.	Copper (Cu)	0.0002%	max.
Bromide & Iodide	0.005%	max.	Iron (Fe)	0.0003%	max.
Nitrate (NO_3)	0.0005%	max.	Lead (Pb)	0.0002%	max.
Phosphate (PO_4)	0.0005%	max.	Magnesium (Mg)	0.002%	max.
Sulfate (SO_4)	0.002%	max.	Potassium (K)	0.01%	max.

Cat No.	Package	Size
AR1227-P500G	Plastic	500 g
AR1227-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1227-P5KG	Plastic	5 kg
AR1227-P25KG	Plastic	25 kg

tri-SODIUM CITRATE DIHYDRATE



$C_6H_5Na_3O_7.2H_2O$	FW. 294.10	Density =	1.76 g/cm^3
CAS-No.	6132-04-3	Melting Point	150 °C
EC No.	200-675-3		

tri-Sodium Citrate Dihydrate, AR — Code AR1209

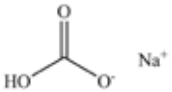
Specifications

Description	White crystalline powder		Phosphate (PO_4)	0.002%	max
Assay	99.0%	min	Sulfate (SO_4)	0.004%	max
pH (5% in Water)	7.5 - 9.0		Heavy metals (as Pb)	0.0005%	max
Total nitrogen (N)	0.001%	max	Iron (Fe)	0.0005%	max
Chloride (Cl)	0.001%	max			

Cat No.	Package	Size
AR1209-P500G	Plastic	500 G
AR1209-P1KG	Plastic	1 KG

Cat No.	Package	Size
AR1209-P5KG	Plastic	5 KG
AR1209-P25KG	Plastic	25 KG

SODIUM HYDROGEN CARBONATE



$NaHCO_3$	FW. 84.01	Density =	2.22 g/cm^3
CAS-No.	144-55-8	Melting Point	270 °C
EC No.	205-633-8		

Sodium Hydrogen Carbonate, AR — Code AR1168

Specifications

Description	A soft white crystalline powder		Silicate (SiO_2)	0.005%	max.
Assay	99.5%	min.	Sulfate (SO_4)	0.003%	max.
pH of solution	8.4	max.	Arsenic (As)	0.00004%	max.
Insoluble matter	0.02%	max.	Calcium (Ca)	0.005%	max.
Substances reducing iodine (I)	0.0065%	max.	Copper (Cu)	0.0005%	max.
Nitrogen Compound (N)	0.001%	max.	Iron (Fe)	0.001%	max.
Ammonium (NH_4)	0.005%	max.	Lead (Pb)	0.0005%	max.
Chloride (Cl)	0.003%	max.	Magnesium (Mg)	0.005%	max.
Phosphate (PO_4)	0.005%	max.	Potassium (K)	0.005%	max.

Cat No.	Package	Size
AR1168-P500G	Plastic	500 g
AR1168-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1168-P5KG	Plastic	5 kg
AR1168-P25KG	Plastic	25 kg

Sodium Hydrogen Carbonate, Pharma — Code BP1168

Specifications

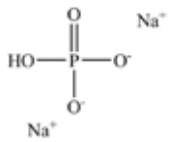
(Meets Ph.Eur, BP, USP/NF, JP)

Assay	99.0%	min.	Ammonium (NH_4)	0.002%	max.
Appearance	White or almost white, crystalline powder		Carbonate	Passes test	
Identity	Passes test		Chloride (Cl)	0.015%	max.
Appearance of solution	Clear and colorless		Sulfate (SO_4)	0.015%	max.
pH of a 5% solution at 25°C	7.9 - 8.4		Heavy metals (as Pb)	0.0005%	max.
Solubility	Passes test		Aluminium (Al)	0.0002%	max.
Loss on drying	0.25%	max.	Arsenic (As)	0.0002%	max.
Insoluble Substances	Passes test		Calcium (Ca)	0.01%	max.
Organics	0.01%	max.	Copper (Cu)	0.0001%	max.
Sulfur compounds	0.015%	max.	Iron (Fe)	0.0005%	max.
Ammonia	Passes test		Magnesium (Mg)	0.004%	max.

Cat No.	Package	Size
BP1168-P500G	Plastic	500 g
BP1168-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1168-P5KG	Plastic	5 kg
BP1168-P25KG	Plastic	25 kg

di-SODIUM HYDROGEN PHOSPHATE ANHYDROUS



Na_2HPO_4 FW. 141.96
CAS-No. 7558-79-4
EC No. 231-448-7

Melting Point ~ 250 °C

di-Sodium Hydrogen Phosphate Anhydrous, AR — Code AR1237

Specifications

(Meet A.C.S. Specifications)

Assay	99.0%	min.	Heavy metals (as Pb)	0.001%	max.
pH of a 5% solution (25°C)	8.7 - 9.3		Chloride (Cl)	0.002%	max.
Insoluble matter	0.01%	max.	Sulfate (SO_4)	0.005%	max.
Loss on drying	0.2%	max.	Iron (Fe)	0.002%	max.

Cat No.	Package	Size
AR1237-P500G	Plastic	500 g

Cat No.	Package	Size
AR1237-P20KG	Plastic	20 kg

di-Sodium Hydrogen Phosphate Anhydrous, Pharma — Code BP1237

Specifications

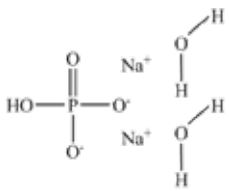
(Meets Ph.Eur, BP, USP/NF)

Assay	98.0 - 101.0%		Reducing substances	Passes test	
Appearance	White or almost white		Monosodium phosphate	2.5%	max.
	powder, hygroscopic		Chloride (Cl)	0.02%	max.
Identity	Passes test		Sulfate (SO_4)	0.05%	max.
Appearance of solution	Clear and colorless		Heavy metals (as Pb)	0.001%	max.
Solubility	Passes test		Arsenic (As)	0.0002%	max.
Insoluble matter	0.40%	max.	Iron (Fe)	0.002%	max.
Loss on drying at 105 °C	1.0%	max.			

Cat No.	Package	Size
BP1237-P500G	Plastic	500 g

Cat No.	Package	Size
BP1237-P20KG	Plastic	20 kg

di-SODIUM HYDROGEN PHOSPHATE DIHYDRATE



$Na_2HPO_4.2H_2O$	FW. 177.99	Density =	2.1 g/cm^3
CAS-No.	10028-24-7	Melting Point	92.5 °C
EC No.	231-448-7		

di-Sodium Hydrogen Phosphate Dihydrate, AR — Code AR1238

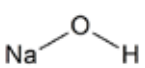
Specifications

Assay	99.5%	min.	Sulfate (SO_4)	0.005%	max.
pH of 5% water (20°C)	9.0 - 9.2		Heavy metals (as Pb)	0.001%	max.
Total Nitrogen (N)	0.001%	max.	Iron (Fe)	0.001%	max.
Chloride (Cl)	0.001%	max.	Potassium (K)	0.005%	max.

Cat No.	Package	Size
AR1238-P500G	Plastic	500 g
AR1238-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1238-P5KG	Plastic	5 kg
AR1238-P25KG	Plastic	25 kg

SODIUM HYDROXIDE (MICROPEARLS)



NaOH	FW. 40.00	Density =	2.13 g/cm^3
CAS-No.	1310-73-2	Melting Point	323 °C
UN No.	1823	Boiling Point	1390 °C
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sodium Hydroxide (Micropearls), AR — Code AR1325

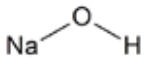
Specifications

Assay (by acidimetry)	99.0%	min.	Heavy metals (as Ag)	0.002%	max.
Sodium carbonate (Na_2CO_3)	1.0%	max.	Calcium (Ca)	0.005%	max.
Nitrogen Compounds (as N)	0.001%	max.	Iron (Fe)	0.001%	max.
Chloride (Cl)	0.03%	max.	Magnesium (Mg)	0.002%	max.
Phosphate (PO_4)	0.001%	max.	Mercury (Hg)	0.00001%	max.
Sulfate (SO_4)	0.03%	max.	Nickel (Ni)	0.001%	max.
Iron oxide (Fe_2O_3)	0.001%	max.	Potassium (K)	0.02%	max.

Cat No.	Package	Size
AR1325-P500G	Plastic	500 g
AR1325-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1325-P5KG	Plastic	5 kg
AR1325-P25KG	Plastic	25 kg

SODIUM HYDROXIDE 25% Solution



NaOH	FW. 40.00	Density =	1.28 kg/L
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	II

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

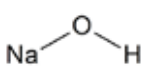
Sodium Hydroxide 25% Solution, AR — Code AR1265

Specifications

Assay (by acidimetry)	25.0 - 26.0%		Cobalt (Co)	0.5	ppm max.
Sodium carbonate (Na_2CO_3)	0.5%	max.	Copper (Cu)	5	ppm max.
Ammonium (NH_4)	20	ppm max.	Iron (Fe)	1	ppm max.
Chloride (Cl)	20	ppm max.	Lead (Pb)	0.5	ppm max.
Nitrate (NO_3)	20	ppm max.	Magnesium (Mg)	0.5	ppm max.
Phosphate (PO_4)	5	ppm max.	Nickel (Ni)	1	ppm max.
Sulfate (SO4)	10	ppm max.	Potassium (K)	500	ppm max.
Aluminium (Al)	0.5	ppm max.	Silicon (Si)	10	ppm max.
Calcium (Ca)	0.5	ppm max.	Zinc (Zn)	0.5	ppm max.
Chromium (Cr)	1	ppm max.			

Cat No.	Package	Size
AR1265-P20L	Plastic	20 L

SODIUM HYDROXIDE 30% SOLUTION



NaOH	FW. 40.00	Density =	1.33 g/mL
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	II

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

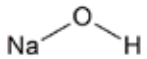
Sodium Hydroxide 30% Solution, AR — Code AR1332

Specifications

Assay (by acidimetry)	30.0 - 31.0%		Heavy metals (as Ag)	0.002%	max.
Sodium carbonate (Na_2CO_3)	1.0%	max.	Calcium (Ca)	0.005%	max.
Nitrogen Compounds (as N)	0.001%	max.	Iron (Fe)	0.001%	max.
Chloride (Cl)	0.03%	max.	Magnesium (Mg)	0.002%	max.
Phosphate (PO_4)	0.001%	max.	Mercury (Hg)	0.00001%	max.
Sulfate (SO_4)	0.03%	max.	Nickel (Ni)	0.001%	max.
Iron oxide (Fe_2O_3)	0.001%	max.	Potassium (K)	0.02%	max.

Cat No.	Package	Size
AR1332-P20L	Plastic	20 L

SODIUM HYDROXIDE 35% SOLUTION



NaOH	FW. 40.00	Density =	1.38 kg/L
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

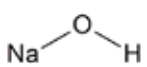
Sodium Hydroxide 35% Solution, AR — Code AR1169

Specifications

Assay (by acidimetry)	35.0%	max.	Chromium (Cr)	1	ppm max.
Sodium carbonate (Na_2CO_3)	0.5%	max.	Copper (Cu)	5	ppm max.
Ammonium (NH_4)	20	ppm max.	Iron (Fe)	1	ppm max.
Chloride (Cl)	20	ppm max.	Lead (Pb)	0.5	ppm max.
Nitrate (NO_3)	20	ppm max.	Magnesium (Mg)	0.5	ppm max.
Phosphate (PO_4)	5	ppm max.	Nickel (Ni)	1	ppm max.
Sulfate (SO_4)	10	ppm max.	Potassium (K)	500	ppm max.
Aluminium (Al)	0.5	ppm max.	Silicon (Si)	10	ppm max.
Calcium (Ca)	0.5	ppm max.	Zinc (Zn)	0.5	ppm max.

Cat No.	Package	Size
AR1169-P20L	Plastic	20 L

SODIUM HYDROXIDE 48% SOLUTION



NaOH	FW. 40.00	Density =	1.53 kg/L
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

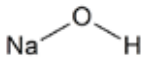
Sodium Hydroxide 48% Solution, AR — Code AR1170

Specifications

Assay (by acidimetry)	47.0 - 49.0%		Chromium (Cr)	1	ppm max.
Sodium carbonate (Na_2CO_3)	0.5%	max.	Copper (Cu)	5	ppm max.
Ammonium (NH_4)	20	ppm max.	Iron (Fe)	1	ppm max.
Chloride (Cl)	20	ppm max.	Lead (Pb)	0.5	ppm max.
Nitrate (NO_3)	20	ppm max.	Magnesium (Mg)	0.5	ppm max.
Phosphate (PO_4)	5	ppm max.	Nickel (Ni)	1	ppm max.
Sulfate (SO_4)	10	ppm max.	Potassium (K)	500	ppm max.
Aluminium (Al)	0.5	ppm max.	Silicon (Si)	10	ppm max.
Calcium (Ca)	0.5	ppm max.	Zinc (Zn)	0.5	ppm max.

Cat No.	Package	Size
AR1170-P20L	Plastic	20 L

SODIUM HYDROXIDE 0.1 N



NaOH	FW. 40.00	Density =	1.00 kg/L
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	III

Sodium Hydroxide, 0.1N — Code GN1173

Specifications

Appearance	Clear, colorless solution

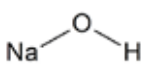
Normality	0.1000N ± 0.0005N

Traceable to NIST

Cat No.	Package	Size
GN1173-P1L	Plastic	1 L
GN1173-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1173-P4L	Plastic	4 L
GN1173-P20L	Plastic	20 L

SODIUM HYDROXIDE 0.5 N



NaOH	FW. 40.00	Density =	1.02 kg/L
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	III

Warning

GHS: H290, H315, H319; P234, P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364, P390, P406

Sodium Hydroxide, 0.5N — Code GN1321

Specifications

Appearance	Clear, colorless solution

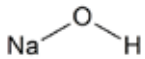
Normality	0.500N ± 0.001N

Traceable to NIST

Cat No.	Package	Size
GN1321-P1L	Plastic	1 L
GN1321-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1321-P4L	Plastic	4 L
GN1321-P20L	Plastic	20 L

SODIUM HYDROXIDE 1.0 N



NaOH	FW. 40.00	Density =	1.04 kg/L
CAS-No.	1310-73-2		
UN No.	1824		
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	III

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sodium Hydroxide, 1.0N — Code GN1174

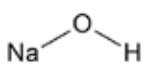
Specifications

Appearance	Clear, colorless solution
Normality	1.000N ± 0.005N
Traceable to NIST	

Cat No.	Package	Size
GN1174-P1L	Plastic	1 L
GN1174-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1174-P4L	Plastic	4 L
GN1174-P20L	Plastic	20 L

SODIUM HYDROXIDE



NaOH	FW. 40.00	Density =	2.13 g/cm^3
CAS-No.	1310-73-2	Melting Point	323 °C
UN No.	1823	Boiling Point	1390 °C
EC No.	215-185-5	EC-Index-No	011-002-00-6
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sodium Hydroxide, Pharma — Code BP1402

Specifications

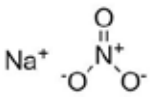
(Meets Ph.Eur, BP, USP/NF, JP)

Assay (by acidimetry)	97.0% min.		Carbonate (as Na_2CO_3)	2.0%	max.
Appearance	White or almost white, crystalline masses, supplied as pellets		Sodium (Na)	54.0 - 59.8%	
			Chloride (Cl)	0.005%	max.
			Sulfate (SO_4)	0.005%	max.
Identity	Passes test		Heavy metals (as Pb)	0.002%	max.
Appearance of solution	Clear and colorless		Iron (Fe)	0.001%	max.
Insoluble substances and organic matter	Passes test		Mercury (Hg)	Passes test	
Solubility	Passes test		Potassium (K)	0.5%	max.

Cat No.	Package	Size
BP1402-P500G	Plastic	500 g
BP1402-P1KG	Plastic	1 kg

Cat No.	Package	Size
BP1402-P5KG	Plastic	5 kg
BP1402-P25KG	Plastic	25 kg

SODIUM NITRATE



$NaNO_3$	FW. 84.99	Density =	2.26 g/cm^3
CAS-No.	7631-99-4	Melting Point	308 °C
UN No.	1498		
EC No.	231-554-3		
Class:	5.1	Packing Group:	III

Warning

GHS: H272, H319; P210, P220, P264, P280, P305 + P351 + P338, P337 + P313

Sodium Nitrate, AR — Code AR1249

Specifications

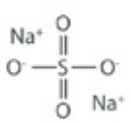
Assay (on dried substance)	99.5%	min.
Appearance	White, fine crystalline powder	
Water	1%	max.
Substances insoluble in water	0.01%	max.
Chlorate and Perchlorate (Cl)	0.006%	max.
Chloride (Cl)	0.005%	max.
Nitrite (NO_2)	0.0005%	max.

Phosphate (PO_4)	0.001%	max.
Sulfate (SO_4)	0.02%	max.
Heavy metals (as Pb)	0.001%	max.
Calcium (Ca)	0.004%	max.
Iron (Fe)	0.001%	max.
Magnesium (Mg)	0.003%	max.

Cat No.	Package	Size
AR1249-P500G	Plastic	500 g
AR1249-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1249-P5KG	Plastic	5 kg
AR1249-P25KG	Plastic	25 kg

SODIUM SULFATE ANHYDROUS



Na_2SO4	FW. 142.04	Density =	2.70 g/cm^3
CAS-No.	7757-82-6	Melting Point	888 °C
EC No.	231-820-9		

Sodium Sulfate Anhydrous, AR — Code AR1412

Specifications

(Meet A.C.S. Specifications)

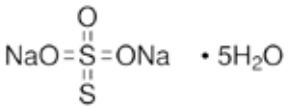
Description	White crystalline powder	
Assay	99.0%	min.
pH of 5% solution	5.2 – 8.0	
Insoluble matter	0.01%	max.
Loss on ignition	0.5%	max.
Nitrogen compounds (as N)	0.0005%	max.
Chloride (Cl)	0.001%	max.

Phosphate (PO_4)	0.001%	max.
Heavy metals (as Pb)	0.0005%	max.
Arsenic (As)	0.0001%	max.
Calcium (Ca)	0.005%	max.
Iron (Fe)	0.0005%	max.
Magnesium (Mg)	0.001%	max.
Potassium (K)	0.01%	max.

Cat No.	Package	Size
AR1412-P500G	Plastic	500 g
AR1412-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1412-P5KG	Plastic	5 kg
AR1412-P25KG	Plastic	25 kg

SODIUM THIOSULFATE PENTAHYDRATE



$Na_2O_3S_2.5H_2O$	FW. 248.21	Density =	1.74 g/cm^3
CAS-No.	10102-17-7	Melting Point	48 °C
EC No.	231-867-5		

Sodium Thiosulfate Pentahydrate, AR — Code AR1499

Specifications (Meet A.C.S. Specifications)

Description	Colorless crystalline powder	
Assay	99.5 - 101.0%	
pH of 5% solution at 25°C	6.0 - 8.4	
Insoluble matter	0.005%	max.
Nitrogen Compounds (as N)	0.002%	max.
Chloride (Cl)	0.02%	max.
Sulfate and Sulfite (as SO_4)	0.1%	max.
Sulfide (S)	Passes test	

Heavy metals (as Pb)	0.0005%	max.
Cadmium (Cd)	0.0005%	max.
Calcium (Ca)	0.002%	max.
Cobalt (Co)	0.0005%	max.
Copper (Cu)	0.0005%	max.
Iron (Fe)	0.0005%	max.
Magnesium (Mg)	0.001%	max.
Potassium (K)	0.005%	max.

Cat No.	Package	Size
AR1499-P500G	Plastic	500 g
AR1499-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1499-P5KG	Plastic	5 kg
AR1499-P25KG	Plastic	25 kg

SODIUM THIOSULFATE 0.1 N

CAS-No.	7772-98-7	Density =	1.01 kg/L

Sodium thiosulfate, 0.1N — Code GN1178

Specifications

Appearance	Clear, colorless solution

Normality	0.1000N ± 0.0005N

Traceable to NIST

Cat No.	Package	Size
GN1178-P1L	Plastic	1 L
GN1178-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1178-P4L	Plastic	4 L
GN1178-P20L	Plastic	20 L

STANNOUS (II) CHLORIDE DIHYDRATE

$SnCl_2 \cdot 2H_2O$

$SnCl_2.2H_2O$	FW. 225.63	Density =	2.71 g/cm^3
CAS-No.	10025-69-1	Melting Point	38 °C
UN No.	3260		
EC No.	231-868-0		
Class:	8	Packing Group:	II

Danger

GHS: H290, H302 + H332, H314, H317, H335, H373, H410; P234, P260, P264, P270, P271, P272, P273, P280, P301 + P317, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P330, P333 + P317, P362 + P364, P390, P391, P403 + P233, P405, P406

Stannous (II) Chloride Dihydrate, AR — Code AR1179

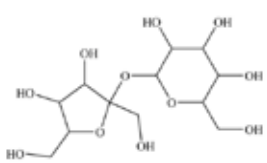
Specifications

Description `	Colorless crystals		Arsenic (As)	0.0001%	max.
Assay	98.0%	min.	Copper (Cu)	0.001%	max.
Substances not precipitated by H_2S (as SO_4)	0.05%	max.	Iron (Fe)	0.002%	max.
Ammonium (NH_4)	0.002%	max.	Lead (Pb)	0.005%	max.
Sulfate (SO_4)	0.002%	max.			

Cat No.	Package	Size
AR1179-P100G	Plastic	100 g
AR1179-P500G	Plastic	500 g
AR1179-P1KG	Plastic	1 kg

Cat No.	Package	Size
AR1179-P5KG	Plastic	5 kg
AR1179-P25KG	Plastic	25 kg

SUCROSE



$C_{12}H_{22}O_{11}$	FW. 342.30		
CAS-No.	57-50-1	Melting Point	169-170 °C
EC No.	200-334-9		

Sucrose, AR — Code AR1180

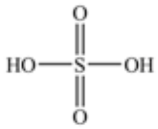
Specifications

Description	Colorless crystalline powder		Chloride (Cl)	0.0005%	max.
Specific rotation (α) 20 °C	+66.4° to +66.6°		Sulfated ash	0.005%	max.
(10% aqueous solution)			Sulfate (SO_4)	0.002%	max.
Loss on drying at 100 °C	0.05%	max.	Copper (Cu)	0.0001%	max.
Insoluble matter	0.003%	max.	Iron (Fe)	0.0001%	max.
Reducing sugars ($C_6H_{12}O_6$)	0.01%	max.	Lead (Pb)	0.0001%	max.
Nitrogen Compound (N)	0.002%	max.			

Cat No.	Package	Size
AR1180-P500G	Plastic	500 g

Cat No.	Package	Size
AR1180-P20KG	Plastic	20 kg

Sulfuric Acid 0.1N - 1.0N



CAS-No.	7664-93-9		
UN No.	3264		
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group	III
GHS:	H290; P234, P390, P406		

Warning

Sulfuric Acid, 0.1N — Code GN1194

Specifications

Appearance	Clear, colorless solution	Normality	0.1000N ± 0.0005N
		Traceable to NIST	

Cat No.	Package	Size
GN1194-P1L	Plastic	1 L
GN1194-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1194-P4L	Plastic	4 L
GN1194-P20L	Plastic	20 L

Sulfuric Acid, 0.2N — Code GN1195

Specifications

Appearance	Clear, colorless solution	Normality	0.2000N ± 0.0005N
		Traceable to NIST	

Cat No.	Package	Size
GN1195-P500ML	Plastic	500 mL
GN1195-P1L	Plastic	1 L

Cat No.	Package	Size
GN1195-P2.5L	Plastic	2.5 L
GN1195-P4L	Plastic	4 L

Sulfuric Acid, 0.4N — Code GN1196

Specifications

Appearance	Clear, colorless solution	Normality	0.4000N ± 0.0005N
		Traceable to NIST	

Cat No.	Package	Size
GN1196-P500L	Plastic	500 mL
GN1196-P1L	Plastic	1 L

Cat No.	Package	Size
GN1196-P2.5L	Plastic	2.5 L
GN1196-P4L	Plastic	4 L

Sulfuric Acid, 1.0N — Code GN1197

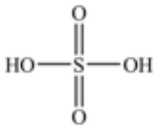
Specifications

Appearance	Clear, colorless solution	Normality	1.000N ± 0.005N
		Traceable to NIST	

Cat No.	Package	Size
GN1197-P500ML	Plastic	500 mL
GN1197-P1L	Plastic	1 L

Cat No.	Package	Size
GN1197-P2.5L	Plastic	2.5 L
GN1197-P4L	Plastic	4 L

Sulfuric Acid 5%



H_2SO_4	FW. 98.08	Density =	1.03 kg/L
CAS-No.	7664-93-9	Melting Point	~ 0 °C
UN No.	2796	Boiling Point	~ 100 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Warning

GHS: H290, H315, H319; P234, P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364, P390, P406

Sulfuric Acid 5%, AR — Code AR1362

Specifications

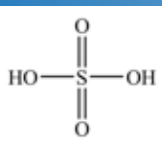
Assay (by acidimetry)	5.0 - 6.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1362-G500ML	Glass	500 mL
AR1362-G1L	Glass	1 L
AR1362-G2.5L	Glass	2.5 L
AR1362-G4L	Glass	4 L

Cat No.	Package	Size
AR1362-P2.5L	Plastic	2.5 L
AR1362-P4L	Plastic	4 L
AR1362-P20L	Plastic	20 L

Sulfuric Acid 8%



H_2SO_4	FW. 98.08	Density =	1.09 kg/L
CAS-No.	7664-93-9	Melting Point	- 7.3 °C
UN No.	2796	Boiling Point	102.7 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Warning

GHS: H290, H315, H319; P234, P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364, P390, P406

Sulfuric Acid 8%, AR — Code AR1461

Specifications

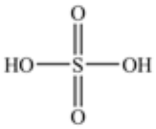
Assay	8.0 - 8.1% (v/v)	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1461-G500ML	Glass	500 mL
AR1461-G1L	Glass	1 L
AR1461-G2.5L	Glass	2.5 L
AR1461-G4L	Glass	4 L

Cat No.	Package	Size
AR1461-P2.5L	Plastic	2.5 L
AR1461-P4L	Plastic	4 L
AR1461-P20L	Plastic	20 L

Sulfuric Acid 10%



H_2SO_4	FW. 98.08	Density =	1.07 kg/L
CAS-No.	7664-93-9	Melting Point	- 4.5 °C
UN No.	2796	Boiling Point	101.7 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Warning

GHS: H290, H315, H319; P234, P264, P280, P302 + P352, P305 + P351 + P338, P332 + P317, P337 + P317, P362 + P364, P390, P406

Sulfuric Acid 10%, AR — Code AR1181

Specifications

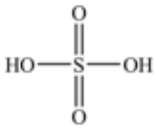
Assay (by acidimetry)	10.0 - 11.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1181-G500ML	Glass	500 mL
AR1181-G1L	Glass	1 L
AR1181-G2.5L	Glass	2.5 L
AR1181-G4L	Glass	4 L

Cat No.	Package	Size
AR1181-P2.5L	Plastic	2.5 L
AR1181-P4L	Plastic	4 L
AR1181-P20L	Plastic	20 L

Sulfuric Acid 20%



H_2SO_4	FW. 98.08	Density =	1.139 kg/L
CAS-No.	7664-93-9	Melting Point	-13.5 °C
UN No.	2796	Boiling Point	~ 104.6 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 20%, Semig — Code SM1280

Specifications

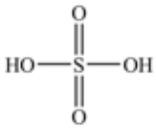
Assay (by acidimetry)	19.0 – 21.0%	
Color (APHA)	10 max.	
Residue after Ignition	5	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.02	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.2	ppm max.

Copper (Cu)	0.1	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.3	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
SM1280-G500ML	Glass	500 mL
SM1280-G1L	Glass	1 L
SM1280-G2.5L	Glass	2.5 L
SM1280-G4L	Glass	4 L

Cat No.	Package	Size
SM1280-P2.5L	Plastic	2.5 L
SM1280-P4L	Plastic	4 L
SM1280-P25L	Plastic	25 L

Sulfuric Acid 37%



H_2SO_4	FW. 98.08	Density =	1.27 kg/L
CAS-No.	7664-93-9	Melting Point	- 69.4 °C
UN No.	2796	Boiling Point	112 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 37%, AR — Code AR1182

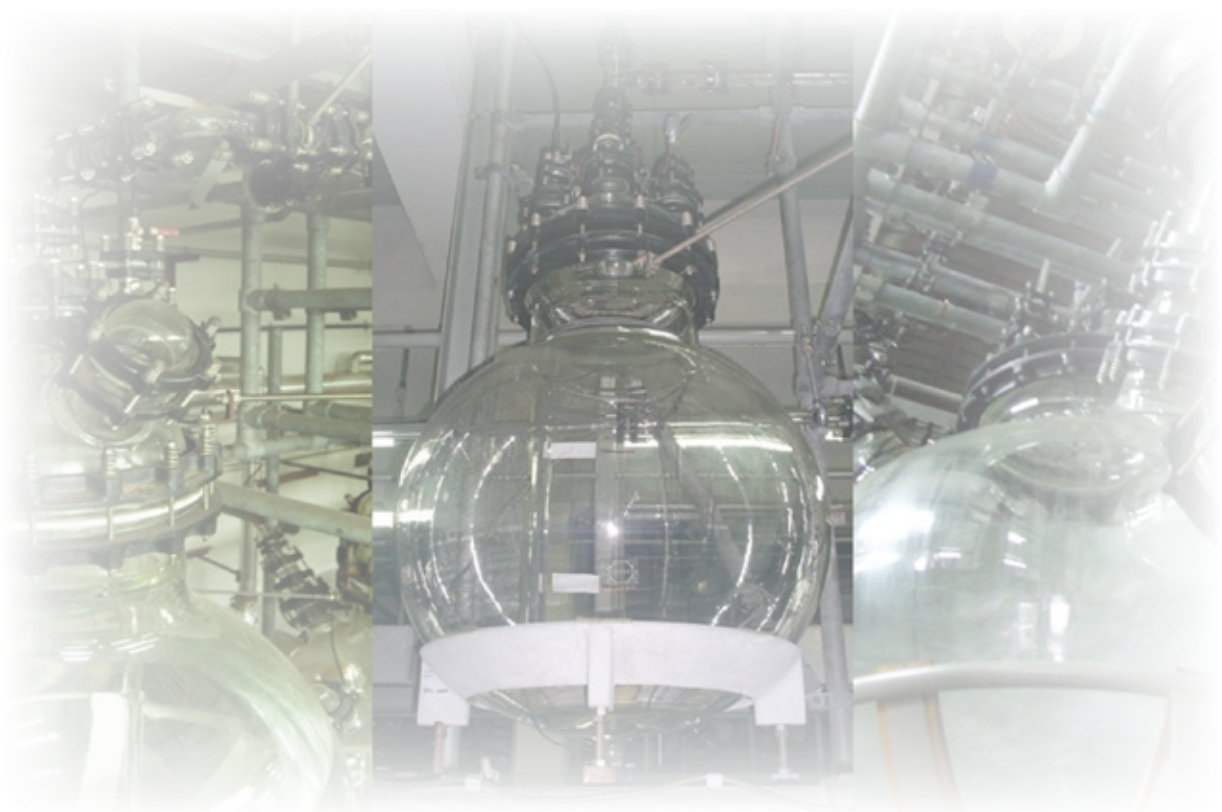
Specifications

Assay (by acidimetry)	37 - 38%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

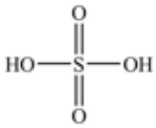
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1182-G500ML	Glass	500 mL
AR1182-G1L	Glass	1 L
AR1182-G2.5L	Glass	2.5 L
AR1182-G4L	Glass	4 L

Cat No.	Package	Size
AR1182-P2.5L	Plastic	2.5 L
AR1182-P4L	Plastic	4 L
AR1182-P20L	Plastic	20 L



Sulfuric Acid 40%



H_2SO_4	FW. 98.08	Density =	1.30 kg/L
CAS-No.	7664-93-9	Melting Point	-68.2 °C
UN No.	2796	Boiling Point	113.4 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 40%, Electropure — Code EP1183

Specifications

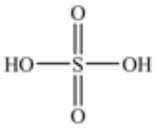
Assay (by acidimetry)	39.0 - 41.0%	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	2	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.

Germanium (Ge)	0.1	ppm max.
Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.1	ppm max.

Cat No.	Package	Size
AR1183-G500ML	Glass	500 mL
AR1183-G1L	Glass	1 L
AR1183-G2.5L	Glass	2.5 L
AR1183-G4L	Glass	4 L

Cat No.	Package	Size
AR1183-P2.5L	Plastic	2.5 L
AR1183-P4L	Plastic	4 L
AR1183-P20L	Plastic	20 L

Sulfuric Acid 50%



H_2SO_4	FW. 98.08	Density =	1.39 kg/L
CAS-No.	7664-93-9	Melting Point	-36.5 °C
UN No.	2796	Boiling Point	123.3 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 50%, AR — Code AR1184

Specifications

Assay (by acidimetry)	49.0 - 51.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1184-G500ML	Glass	500 mL
AR1184-G1L	Glass	1 L
AR1184-G2.5L	Glass	2.5 L
AR1184-G4L	Glass	4 L

Cat No.	Package	Size
AR1184-P2.5L	Plastic	2.5 L
AR1184-P4L	Plastic	4 L
AR1184-P20KG	Plastic	20 KG

Sulfuric Acid 50%, Semig — Code SM1184

Specifications

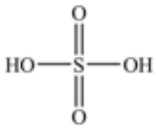
Assay (by acidimetry)	49.0 – 51.0%	
Color (APHA)	10 max.	
Residue after Ignition	5	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.02	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.2	ppm max.

Copper (Cu)	0.1	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.3	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
SM1184-G500ML	Glass	500 mL
SM1184-G1L	Glass	1 L
SM1184-G2.5L	Glass	2.5 L
SM1184-G4L	Glass	4 L

Cat No.	Package	Size
SM1184-P2.5L	Plastic	2.5 L
SM1184-P4L	Plastic	4 L
SM1184-P20L	Plastic	20 L

Sulfuric Acid 59.5%



H_2SO_4	FW. 98.08	Density =	1.49 kg/L
CAS-No.	7664-93-9	Melting Point	-28.1 °C
UN No.	2796	Boiling Point	139 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 59.5%, AR — Code AR 1228

Specifications

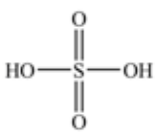
Assay (by acidimetry)	59.5% ± 0.1%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.

Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1228-G500ML	Glass	500 mL
AR1228-G1L	Glass	1 L
AR1228-G2.5L	Glass	2.5 L
AR1228-G4L	Glass	4 L

Cat No.	Package	Size
AR1228-P2.5L	Plastic	2.5 L
AR1228-P4L	Plastic	4 L
AR1228-P20KG	Plastic	20 kg

Sulfuric Acid 60%



H_2SO_4	FW. 98.08	Density =	1.49 kg/L
CAS-No.	7664-93-9	Melting Point	- 28.7 °C
UN No.	1830	Boiling Point	140 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 60%, AR — Code AR1185

Specifications

Assay (by acidimetry)	60%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.

Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1185-G500ML	Glass	500 mL
AR1185-G1L	Glass	1 L
AR1185-G2.5L	Glass	2.5 L
AR1185-G4L	Glass	4 L

Cat No.	Package	Size
AR1185-P2.5L	Plastic	2.5 L
AR1185-P4L	Plastic	4 L
AR1185-P20KG	Plastic	20 kg

Sulfuric Acid 60%, Semig — Code SM1185

Specifications

Assay (by acidimetry)	60.0 - 61.0%	
Color (APHA)	10	max.
Residue after Ignition	5	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.02	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.2	ppm max.

Copper (Cu)	0.1	ppm max.
Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.3	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
SM1185-G500ML	Glass	500 mL
SM1185-G1L	Glass	1 L
SM1185-G2.5L	Glass	2.5 L
SM1185-G4L	Glass	4 L

Cat No.	Package	Size
SM1185-P2.5L	Plastic	2.5 L
SM1185-P4L	Plastic	4 L
SM1185-P20L	Plastic	20 L

Sulfuric Acid 60%, Electropure — Code EP1185

Specifications

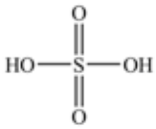
Assay (by acidimetry)	60.0%	min.
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substance reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	2	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.3	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.1	ppm max.
Gold (Au)	0.02	ppm max.

Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Potassium (K)	0.1	ppm max.
Silicon (Si)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.1	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.05	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.1	ppm max.
Particle/ml :		
0.5 µm and greater (drums)	150	max.
1.0 µm and greater (drums)	25	max.

Cat No.	Package	Size
EP1185-G500ML	Glass	500 mL
EP1185-G1L	Glass	1 L
EP1185-G2.5L	Glass	2.5 L
EP1185-G4L	Glass	4 L

Cat No.	Package	Size
EP1185-P2.5L	Plastic	2.5 L
EP1185-P4L	Plastic	4 L
EP1185-P30KG	Plastic	30 kg

SULFURIC ACID 62.5%



H_2SO_4	FW. 98.08	Density =	1.52 kg/L
CAS-No.	7664-93-9	Melting Point	-33.4 °C
UN No.	1830	Boiling Point	145.8 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 62.5%, AR — Code AR1330

Specifications

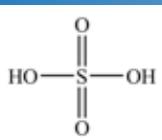
Assay (by acidimetry)	62.25 - 62.75%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Chloride (Cl)	0.1	ppm max.

Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Copper (Cu)	0.2	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1330-G500ML	Glass	500 mL
AR1330-G1L	Glass	1 L
AR1330-G2.5L	Glass	2.5 L
AR1330-G4L	Glass	4 L
AR1330-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
AR1330-P4L	Plastic	4 L
AR1330-P20KG	Plastic	20 kg
AR1330-P25KG	Plastic	25 kg
AR1330-P30KG	Plastic	30 kg
AR1330-P150KG	Plastic	150 kg

SULFURIC ACID 65%



H_2SO_4	FW. 98.08	Density =	1.55 kg/L
CAS-No.	7664-93-9	Melting Point	-39.3 °C
UN No.	1830	Boiling Point	152 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 65%, AR — Code AR1279

Specifications

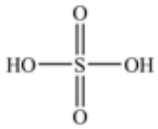
Assay (by acidimetry)	65%	min.
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1279-G500ML	Glass	500 mL
AR1279-G1L	Glass	1 L
AR1279-G2.5L	Glass	2.5 L
AR1279-G4L	Glass	4 L

Cat No.	Package	Size
AR1279-P2.5L	Plastic	2.5 L
AR1279-P4L	Plastic	4 L
AR1279-P30KG	Plastic	30 kg

SULFURIC ACID 67%



H_2SO_4	FW. 98.08	Density =	1.57 kg/L
CAS-No.	7664-93-9	Melting Point	-45 °C
UN No.	1830	Boiling Point	157 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 67%, AR — Code AR1186

Specifications

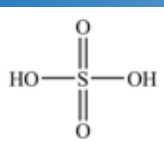
Assay (by acidimetry)	66.0 - 68.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1186-G500ML	Glass	500 mL
AR1186-G1L	Glass	1 L
AR1186-G2.5L	Glass	2.5 L
AR1186-G4L	Glass	4 L

Cat No.	Package	Size
AR1186-P2.5L	Plastic	2.5 L
AR1186-P4L	Plastic	4 L
AR1186-P30KG	Plastic	30 kg

SULFURIC ACID 70%



H_2SO_4	FW. 98.08	Density =	1.61 kg/L
CAS-No.	7664-93-9	Melting Point	-40.7 °C
UN No.	1830	Boiling Point	166 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 67%, AR — Code AR1187

Specifications

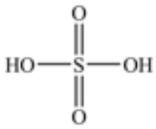
Assay (by acidimetry)	69.0 - 71.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.

Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1187-G500ML	Glass	500 mL
AR1187-G1L	Glass	1 L
AR1187-G2.5L	Glass	2.5 L
AR1187-G4L	Glass	4 L

Cat No.	Package	Size
AR1187-P2.5L	Plastic	2.5 L
AR1187-P4L	Plastic	4 L
AR1187-P30KG	Plastic	30 kg

SULFURIC ACID 75%



H_2SO_4	FW. 98.08	Density =	1.67 kg/L
CAS-No.	7664-93-9	Melting Point	-33.7 °C
UN No.	1830	Boiling Point	183 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 75%, AR — Code AR1188

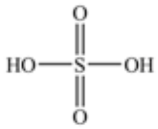
Specifications

Assay (by acidimetry)	74.0 - 76.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1188-G500ML	Glass	500 mL
AR1188-G1L	Glass	1 L
AR1188-G2.5L	Glass	2.5 L
AR1188-G4L	Glass	4 L

Cat No.	Package	Size
AR1188-P2.5L	Plastic	2.5 L
AR1188-P4L	Plastic	4 L
AR1188-P30KG	Plastic	30 kg

SULFURIC ACID 81%



H_2SO_4	FW. 98.08	Density =	1.74 kg/L
CAS-No.	7664-93-9	Melting Point	2.5 °C
UN No.	1830	Boiling Point	210 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 81%, VLSI — Code VL1151

Specifications

ssay (by acidimetry)	81 - 82%	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substances reducing permanganate (as SO_2)	1	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Aluminium (Al)	50	ppb max.
Arsenic and Antimony (as As)	5	ppb max.
Barium (Ba)	50	ppb max.
Beryllium (Be)	20	ppb max.
Bismuth (Bi)	50	ppb max.
Boron (B)	20	ppb max.
Cadmium (Cd)	10	ppb max.
Calcium (Ca)	200	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Gallium (Ga)	20	ppb max.
Germanium (Ge)	100	ppb max.
Gold (Au)	100	ppb max.

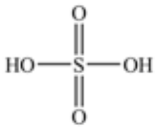
Indium (In)	20	ppb max.
Iron (Fe)	100	ppb max.
Lead (Pb)	10	ppb max.
Lithium (Li)	20	ppb max.
Magnesium (Mg)	50	ppb max.
Manganese (Mn)	20	ppb max.
Molybdenum (Mo)	50	ppb max.
Nickel (Ni)	20	ppb max.
Platinum (Pt)	100	ppb max.
Potassium (K)	100	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	200	ppb max.
Strontium (Sr)	10	ppb max.
Thallium (Tl)	50	ppb max.
Tin (Sn)	100	ppb max.
Titanium (Ti)	100	ppb max.
Vanadium (V)	50	ppb max.
Zinc (Zn)	20	ppb max.
Zirconium (Zr)	100	ppb max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1151-G500ML	Glass	500 mL
VL1151-G1L	Glass	1 L
VL1151-G2.5L	Glass	2.5 L
VL1151-G4L	Glass	4 L

Cat No.	Package	Size
VL1151-P2.5L	Plastic	2.5 L
VL1151-P4L	Plastic	4 L
VL1151-P30KG	Plastic	30 kg
VL1151-P320KG	Plastic	320 kg

SULFURIC ACID 89%



H_2SO_4	FW. 98.08	Density =	1.81 kg/L
CAS-No.	7664-93-9	Melting Point	-1.5 °C
UN No.	1830	Boiling Point	256 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 89%, Semig — Code SM1189

Specifications

Assay (by acidimetry)	89.0 - 91.0%	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic (As)	0.005	ppm max.
Boron (B)	0.02	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.2	ppm max.
Copper (Cu)	0.1	ppm max.

Gold (Au)	0.3	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
SM1189-G500ML	Glass	500 mL
SM1189-G1L	Glass	1 L
SM1189-G2.5L	Glass	2.5 L
SM1189-G4L	Glass	4 L

Cat No.	Package	Size
SM1189-P2.5L	Plastic	2.5 L
SM1189-P4L	Plastic	4 L
SM1189-P30KG	Plastic	30 kg
SM1189-P320KG	Plastic	320 kg

Sulfuric Acid 89%, Electro Extra — Code EX1189

Specifications

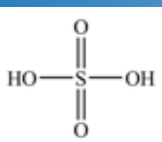
Assay (by acidimetry)	89.0 - 91.0%	
Color (APHA)	3	max.
Residue after Ignition	3	ppm max.
Chloride (Cl)	0.05	ppm max.
Nitrate (NO_3)	0.1	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Aluminium (Al)	0.02	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.01	ppm max.
Beryllium (Be)	0.01	ppm max.
Bismuth (Bi)	0.01	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.01	ppm max.
Germanium (Ge)	0.05	ppm max.
Gold (Au)	0.05	ppm max.

Indium (In)	0.01	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.01	ppm max.
Lithium (Li)	0.01	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.01	ppm max.
Platinum (Pt)	0.01	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.01	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.01	ppm max.
Thallium (Tl)	0.01	ppm max.
Tin (Sn)	0.01	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.05	ppm max.

Cat No.	Package	Size
EX1189-G500ML	Glass	500 mL
EX1189-G1L	Glass	1 L
EX1189-G2.5L	Glass	2.5 L
EX1189-G4L	Glass	4 L

Cat No.	Package	Size
EX1189-P2.5L	Plastic	2.5 L
EX1189-P4L	Plastic	4 L
EX1189-P30KG	Plastic	30 kg
EX1189-P320KG	Plastic	320 kg

SULFURIC ACID 90-91%



H_2SO_4	FW. 98.08	Density =	1.81 kg/L
CAS-No.	7664-93-9	Melting Point	-1.5 °C
UN No.	1830	Boiling Point	256 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class:	8	Packing Group:	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 90 - 91%, AR — Code AR1089

Specifications

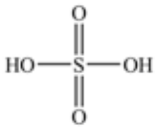
Assay (by acidimetry)	90.0 - 91.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.

Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1089-G500ML	Glass	500 mL
AR1089-G1L	Glass	1 L
AR1089-G2.5L	Glass	2.5 L
AR1089-G4L	Glass	4 L

Cat No.	Package	Size
AR1089-P2.5L	Plastic	2.5 L
AR1089-P4L	Plastic	4 L
AR1089-P30KG	Plastic	30 kg

SULFURIC ACID 96%



H_2SO_4	FW. 98.08	Density =	1.84 kg./L
CAS-No.	7664-93-9	Melting Point	-11.1 °C
UN No.	1830	Boiling Point	310 °C
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packaging Group	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 96.0%, AR — Code AR1075

Specifications

Assay (by acidimetry)	96.0 + 0.15%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.

(Meet A.C.S. Specifications)

Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1075-G500ML	Glass	500 mL
AR1075-G1L	Glass	1 L
AR1075-G2.5L	Glass	2.5 L
AR1075-G4L	Glass	4 L

Cat No.	Package	Size
AR1075-P2.5L	Plastic	2.5 L
AR1075-P4L	Plastic	4 L
AR1075-P30KG	Plastic	30 kg

Sulfuric Acid 96%, AR — Code AR1191

Specifications

Assay (by acidimetry)	95.0 - 98.0%	
Appearance	Clear colorless liquid	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.

(Meet A.C.S. Specifications)

Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Zinc (Zn)	0.02	ppm max.

Cat No.	Package	Size
AR1191-G500ML	Glass	500 mL
AR1191-G1L	Glass	1 L
AR1191-G2.5L	Glass	2.5 L
AR1191-G4L	Glass	4 L

Cat No.	Package	Size
AR1191-P2.5L	Plastic	2.5 L
AR1191-P4L	Plastic	4 L
AR1191-P30KG	Plastic	30 kg
AR1191-P320KG	Plastic	320 kg

Sulfuric Acid 96%, AR — Code AR1341

Specifications

Assay (by acidimetry)	95.0 - 98.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.

(Meet A.C.S. Specifications)

Arsenic and Antimony (as As)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Zinc (Zn)	0.02	ppm max.
Application test (Phenol-Sulfuric Acid Method)	Passes test	

Cat No.	Package	Size
AR1341-G500ML	Glass	500 mL
AR1341-G1L	Glass	1 L

Cat No.	Package	Size
AR1341-G2.5L	Glass	2.5 L
AR1341-G4L	Glass	4 L

Sulfuric Acid 96%, RCI Premium — Code RP1191

Specifications

Assay (by acidimetry)	95.0 - 97.0%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after ignition	0.0004%	max.
Ammonium (NH_4)	0.0001%	max.
Chloride (Cl)	0.00001%	max.
Nitrate (NO_3)	0.00002%	max.
Phosphate (PO_4)	0.00005%	max.
Substance Reducing $KMnO_4$ (as SO_2)	0.0002%	max.
Heavy metal (as Pb)	0.00005%	max.
Aluminium (Al)	0.00001%	max.
Arsenic (As)	0.0000004%	max.
Barium (Ba)	0.000005%	max.
Boron (B)	0.000001%	max.
Cadmium (Cd)	0.000001%	max.
Calcium (Ca)	0.00002%	max.
Chromium (Cr)	0.00001%	max.

(Meet A.C.S. Specifications)

Cobalt (Co)	0.000002%	max.
Copper (Cu)	0.000002%	max.
Gold (Au)	0.00001%	max.
Iron (Fe)	0.00002%	max.
Lead (Pb)	0.000001%	max.
Magnesium (Mg)	0.00002%	max.
Manganese (Mn)	0.000002%	max.
Molybdenum (Mo)	0.000005%	max.
Mercury (Hg)	0.0000005%	max.
Nickel (Ni)	0.000005%	max.
Potassium (K)	0.00003%	max.
Selenium (Se)	0.0001%	max.
Sodium (Na)	0.00003%	max.
Strontium (Sr)	0.000002%	max.
Tin (Sn)	0.00002%	max.
Titanium (Ti)	0.00002%	max.
inc (Zn)	0.00002%	max.

Cat No.	Package	Size
RP1191-G500ML	Glass	500 mL
RP1191-G1L	Glass	1 L
RP1191-G2.5L	Glass	2.5 L
RP1191-G4L	Glass	4 L

Cat No.	Package	Size
RP1191-P2.5L	Plastic	2.5 L
RP1191-P4L	Plastic	4 L
RP1191-P30KG	Plastic	30 kg
RP1191-P320KG	Plastic	320 kg

Sulfuric Acid 96%, Semig — Code SM1191

Specifications

Assay (by acidimetry)	95.0 - 97.0%	
Color (APHA)	10	max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.02	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.2	ppm max.
Copper (Cu)	0.1	ppm max.

Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.3	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
SM1191-G500ML	Glass	500 mL
SM1191-G1L	Glass	1 L
SM1191-G2.5L	Glass	2.5 L
SM1191-G4L	Glass	4 L

Cat No.	Package	Size
SM1191-P2.5L	Plastic	2.5 L
SM1191-P4L	Plastic	4 L
SM1191-P30KG	Plastic	30 kg
SM1191-P320KG	Plastic	320 kg

Sulfuric Acid 96%, Electropure — Code EP1191

Specifications

Assay (by acidimetry)	95.0 - 97.0%	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	1	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.1	ppm max.

Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.01	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Mercury (Hg)	0.005	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.02	ppm max.
Zirconium (Zr)	0.1	ppm max.

Cat No.	Package	Size
EP1191-G500ML	Glass	500 mL
EP1191-G1L	Glass	1 L
EP1191-G2.5L	Glass	2.5 L
EP1192-G4L	Glass	4 L

Cat No.	Package	Size
EP1191-P2.5L	Plastic	2.5 L
EP1191-P4L	Plastic	4 L
EP1191-P30KG	Plastic	30 kg
EP1191-P4L	Plastic	320 kg

Sulfuric Acid 96%, Low Mercury — Code EP1192

Specifications

Assay (by acidimetry)	95.0 - 97.0%	
Mercury (Hg)	0.0000001%	max
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	2	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.1	ppm max.
Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.5	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.02	ppm max.
Zirconium (Zr)	0.1	ppm max.

Cat No.	Package	Size
EP1192-G500ML	Glass	500 mL
EP1192-G1L	Glass	1 L

Cat No.	Package	Size
EP1192-G2.5L	Glass	2.5 L

Sulfuric Acid 96%, VLSI — Code VL1191

Specifications

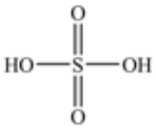
Assay (by acidimetry)	96.0 - 97.0%	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substances reducing permanganate (as SO_2)	1	ppm max.
Ammonium (NH_4)	0.5	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.2	ppm max.
Aluminium (Al)	20	ppb max.
Arsenic and Antimony (as As)	5	ppb max.
Barium (Ba)	20	ppb max.
Beryllium (Be)	5	ppb max.
Bismuth (Bi)	20	ppb max.
Boron (B)	10	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	100	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Gallium (Ga)	5	ppb max.
Germanium (Ge)	50	ppb max.
Gold (Au)	20	ppb max.
Indium (In)	5	ppb max.
Iron (Fe)	50	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	5	ppb max.
Magnesium (Mg)	50	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	5	ppb max.
Nickel (Ni)	5	ppb max.
Platinum (Pt)	10	ppb max.
Potassium (K)	100	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	100	ppb max.
Strontium (Sr)	5	ppb max.
Thallium (Tl)	5	ppb max.
Tin (Sn)	10	ppb max.
Titanium (Ti)	50	ppb max.
Vanadium (V)	50	ppb max.
Zinc (Zn)	20	ppb max.
Zirconium (Zr)	5	ppb max.

Product passed through 1 micron final filter.

Cat No.	Package	Size
VL1191-G500ML	Glass	500 mL
VL1191-G1L	Glass	1 L
VL1191-G2.5L	Glass	2.5 L
VL1191-G4L	Glass	4 L

Cat No.	Package	Size
VL1191-P2.5L	Plastic	2.5 L
VL1191-P4L	Plastic	4 L
VL1191-P30KG	Plastic	30 kg
VL1191-P320KG	Plastic	320 kg

SULFURIC ACID 98%



H_2SO_4	FW. 98.08	Density =	1.84 kg./L
CAS-No.	7664-93-9	Melting Point	-20 C°
UN No.	1830	Boiling Point	330 C°
EC No.	231-639-5	EC-Index-No	016-020-00-8
Class	8	Packaging Group	II

Danger

GHS: H290, H314; P234, P260, P264, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P390, P405, P406

Sulfuric Acid 98%, AR — Code AR1193

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	97.5 - 98.5%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.

Cat No.	Package	Size
AR1193-G500ML	Glass	500 mL
AR1193-G1L	Glass	1 L
AR1193-G2.5L	Glass	2.5 L
AR1193-G4L	Glass	4 L

Cat No.	Package	Size
AR1193-P2.5L	Plastic	2.5 L
AR1193-P4L	Plastic	4 L
AR1193-P30KG	Plastic	30 kg
AR1193-P320KG	Plastic	320 kg

Sulfuric Acid 98%, AR — Code AR1367

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	97.5 - 98.5%	
Appearance	Clear, colorless liquid	
Color (APHA)	10	max.
Residue after Ignition	5.0	ppm max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.
Ammonium (NH_4)	1.0	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	0.5	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.2	ppm max.
Application test (Phenol-Sulfuric Acid Method)	Passes test	

Cat No.	Package	Size
AR1367-G500ML	Glass	500 mL
AR1367-G1L	Glass	1 L
AR1367-G2.5L	Glass	2.5 L
AR1367-G4L	Glass	4 L

Cat No.	Package	Size
AR1367-P2.5L	Plastic	2.5 L
AR1367-P4L	Plastic	4 L
AR1367-P30KG	Plastic	30 kg
AR1367-P320KG	Plastic	320 kg

Sulfuric Acid 98%, RCI Premium — Code RP1193

Specifications

(Meet A.C.S. Specifications)

Assay (by acidimetry)	97.5 - 98.5%	
Appearance	Passes test	
Color (APHA)	10	max.
Residue after ignition	4	ppm max.
Ammonium (NH_4)	1	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Substance Reducing $KMnO_4$ (as SO_2)	2	ppm max.
Heavy metal (as Pb)	0.5	ppm max.
Aluminium (Al)	0.1	ppm max.
Arsenic (As)	0.004	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.1	ppm max.

Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gold (Au)	0.1	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.01	ppm max.
Magnesium (Mg)	0.2	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Mercury (Hg)	0.005	ppm max.
Nickel (Ni)	0.05	ppm max.
Potassium (K)	0.3	ppm max.
Selenium (Se)	1	ppm max.
Sodium (Na)	0.3	ppm max.
Strontium (Sr)	0.02	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.2	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
RP1193-G500ML	Glass	500 mL
RP1193-G1L	Glass	1 L
RP1193-G2.5L	Glass	2.5 L
RP1193-G4L	Glass	4 L

Cat No.	Package	Size
RP1193-P2.5L	Plastic	2.5 L
RP1193-P4L	Plastic	4 L
RP1193-P30KG	Plastic	30 kg
RP1193-P320KG	Plastic	320 kg

Sulfuric Acid 98%, Semig — Code SM1193

Specifications

Assay (by acidimetry)	97.5 - 98.5%	
Color (APHA)	10	max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic and Antimony (as As)	0.005	ppm max.
Boron (B)	0.02	ppm max.
Calcium (Ca)	0.3	ppm max.
Chromium (Cr)	0.2	ppm max.
Copper (Cu)	0.1	ppm max.

Gold (Au)	0.3	ppm max.
Iron (Fe)	0.2	ppm max.
Lead (Pb)	0.3	ppm max.
Magnesium (Mg)	0.3	ppm max.
Manganese (Mn)	0.2	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.3	ppm max.
Sodium (Na)	0.3	ppm max.
Tin (Sn)	0.2	ppm max.
Titanium (Ti)	0.3	ppm max.
Zinc (Zn)	0.2	ppm max.

Cat No.	Package	Size
SM1193-G500ML	Glass	500 mL
SM1193-G1L	Glass	1 L
SM1193-G2.5L	Glass	2.5 L
SM1193-G4L	Glass	4 L

Cat No.	Package	Size
SM1193-P2.5L	Plastic	2.5 L
SM1193-P4L	Plastic	4 L
SM1193-P30KG	Plastic	30 kg
SM1193-P320KG	Plastic	320 kg

Sulfuric Acid 98%, Electropure — Code EP1193

Specifications

Assay (by acidimetry)	97.5 – 98.5%	
Color (APHA)	10	max.
Residue after Ignition	3	ppm max.
Substances reducing permanganate (as SO_2)	2	ppm max.
Ammonium (NH_4)	2	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.2	ppm max.
Phosphate (PO_4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.1	ppm max.

Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.1	ppm max.

Cat No.	Package	Size
EP1193-G500ML	Glass	500 mL
EP1193-G1L	Glass	1 L
EP1193-G2.5L	Glass	2.5 L
EP1193-G4L	Glass	4 L

Cat No.	Package	Size
EP1193-P2.5L	Plastic	2.5 L
EP1193-P4L	Plastic	4 L
EP1193-P30KG	Plastic	30 kg
EP1193-P320KG	Plastic	320 kg

Sulfuric Acid 98%, Low Nitrogen — Code EP1314

Specifications

Assay (by acidimetry)	97.5% min.	
Color (APHA)	10	max.
Residue after Ignition	2	ppm max.
Substances reducing permanganate (as SO2)	2	ppm max.
Total Nitrogen (N)	1	ppm max.
Chloride (Cl)	0.1	ppm max.
Phosphate (PO4)	0.5	ppm max.
Aluminium (Al)	0.05	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.05	ppm max.
Cadmium (Cd)	0.05	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.01	ppm max.
Gallium (Ga)	0.02	ppm max.
Germanium (Ge)	0.1	ppm max.

Gold (Au)	0.1	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.2	ppm max.
Potassium (K)	0.1	ppm max.
Silver (Ag)	0.02	ppm max.
Sodium (Na)	0.2	ppm max.
Strontium (Sr)	0.05	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.1	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.1	ppm max.
Zirconium (Zr)	0.1	ppm max.

Cat No.	Package	Size
EP1314-G500ML	Glass	500 mL
EP1314-G1L	Glass	1 L
EP1314-G2.5L	Glass	2.5 L
EP1314-G4L	Glass	4 L

Cat No.	Package	Size
EP1314-P2.5L	Plastic	2.5 L
EP1314-P4L	Plastic	4 L
EP1314-P30KG	Plastic	30 kg
EP1314-P320KG	Plastic	320 kg

Sulfuric Acid 98%, Pharma — Code BP1193

Specifications

(Meets Ph.Eur, BP, USP/NF, ACS)

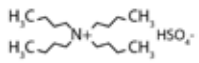
Assay (by acidimetry)	97.5 - 98.5%	
Appearance	Clear and colorless	
Identity	Passes test	
Color (APHA)	10	max.
Solubility	Passes test	
Residue after Ignition	0.0005%	max.
Substances reducing permanganate (as SO_2)	2.0	ppm max.

Ammonium (NH_4)	2.0	ppm max.
Chloride (Cl)	0.2	ppm max.
Nitrate (NO_3)	0.5	ppm max.
Heavy metals (as Pb)	1.0	ppm max.
Arsenic (As)	0.01	ppm max.
Iron (Fe)	0.2	ppm max.
Mercury (Hg)	0.005	ppm max.

Cat No.	Package	Size
BP1193-G500ML	Glass	500 mL
BP1193-G1L	Glass	1 L
BP1193-G2.5L	Glass	2.5 L
BP1193-G4L	Glass	4 L

Cat No.	Package	Size
BP1193-P2.5L	Plastic	2.5 L
BP1193-P4L	Plastic	4 L
BP1193-P30KG	Plastic	30 kg
BP1193-P320KG	Plastic	320 kg

TETRABUTYL AMMONIUM HYDROGEN SULFATE



$C_{16}H_{37}NO_4S$ FW. 339.54
CAS-No. 32503-27-8 Melting point 165.3-167.5 °C
EC No. 251-068-5 Boiling point 213.3 °C

Danger

GHS: H302, H314, H412; P260, P264, P270, P273, P280, P301 + P317, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P405

Tetrabutyl Ammonium Hydrogen Sulfate, HPLC — Code LC1498

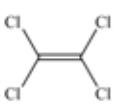
Specifications

Description	Colorless crystals or white crystalline powder	
Assay (Acidimetric; calculated on dried substance)	99.0%	min.
Identity (IR)	Passes test	
pH value (10% Solution)	2	max.

Loss on drying (at 120 °C, vacuum)	2.0%	max.
UV Transmission Levels,%T (0.005 mol/l in water)		
250 nm	98%	min.
220 nm	90%	min.
200 nm	70%	min.

Cat No.	Package	Size
LC1498-P25G	Plastic	25 g

TETRACHLOROETHYLENE



Cl_2CCCl_2 FW. 165.83 Density = 1.620 kg/L
CAS-No. 127-18-4 Melting Point -22 C°
UN No. 1897 Boiling Point 121 C°
EC No. 204-825-9 EC-Index-No 602-028-00-4
Class: 6.1 Packing Group: III

Danger

GHS: H315, H317, H319, H336, H351, H411; P203, P261, P264, P271, P272, P273, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P318, P319, P332 + P317, P333 + P317, P337 + P317, P362 + P364, P391, P403 + P233, P405

Tetrachloroethylene, AR — Code AR1198

Specifications

Assay (by GC.)	99.8%	min.
Water (by Coulometry)	0.01%	max.

Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1198-G500ML	Glass	500 mL
AR1198-G1L	Glass	1 L
AR1198-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1198-G4L	Glass	4 L
AR1198-M25L	Metal	25 L
AR1198-M200L	Metal	200 L

Tetrachloroethylene, AR Low Hydrocarbon — Code AR1199

Specifications

Assay (by GC.)	99.8%	min.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.

Residue on Evaporation	0.001%	max.
Hydrocarbon	0.01%	max.

Cat No.	Package	Size
AR1199-G500ML	Glass	500 mL
AR1199-G1L	Glass	1 L
AR1199-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1199-G4L	Glass	4 L
AR1199-M20L	Metal	20 L
AR1199-M200L	Metal	200 L

Tetrachloroethylene, RCI Premium — Code RP1198

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1198-G1L	Glass	1 L
RP1198-G2.5L	Glass	2.5 L
RP1198-G4L	Glass	4 L
RP1198-M25L	Metal	25 L
RP1198-M200L	Metal	200 L

Tetrachloroethylene, RCI Premium Low Hydrocarbon — Code RP1199

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.
Hydrocarbon	0.01%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1199-G500ML	Glass	500 mL
RP1199-G1L	Glass	1 L
RP1199-G2.5L	Glass	2.5 L
RP1199-G4L	Glass	4 L
RP1199-M20L	Metal	20 L
RP1199-M200L	Metal	200 L

Tetrachloroethylene, UV-IR — Code IR1198

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
400 nm	95%	min.
350 nm	89%	min.
310 nm	85%	min.
295 nm	60%	min.
290 nm	15%	min.
Fluorescence (as quinine)		
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1198-G500ML	Glass	500 mL
IR1198-G1L	Glass	1 L
IR1198-G2.5L	Glass	2.5 L
IR1198-G4L	Glass	4 L

TETRAHYDROFURAN

C_4H_8O	FW. 72.11	Density =	0.890 kg/L
CAS-No.	109-99-9	Melting Point	-108.5 C°
UN No.	2056	Boiling Point	65-66 C°
EC No.	203-726-8	EC-Index-No	603-025-00-0
Class:	3	Packing Group:	II

Danger

GHS: H225, H302, H319, H335, H336, H351, EUH019; P203, P210, P233, P240, P242, P243, P261, P264, P270, P271, P280, P301+P317, P303 + P361 + P353, P304 + P340, P305 + P351 + P338, P318, P319, P330, P337 + P317, P403 + P235, P405

Tetrahydrofuran, AR — Code AR1203B

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Color (APHA)	20	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.03%	max.
Peroxide (as H_2O_2)	0.015%	max.

Stabilized with about 250 ppm BHT.

Cat No.	Package	Size
AR1203B-G500ML	Glass	500 mL
AR1203B-G1L	Glass	1 L
AR1203B-G2.5L	Glass	2.5 L
AR1203B-G4L	Glass	4 L
AR1203B-M25L	Metal	25 L
AR1203B-M200L	Metal	200 L

Tetrahydrofuran, RCI Premium — Code RP1203B

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.03%	max.
Peroxide (as H_2O_2)	0.005%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.
Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Stabilized with about 250 ppm BHT.

Cat No.	Package	Size
RP1203B-G500ML	Glass	500 mL
RP1203B-G1L	Glass	1 L
RP1203B-G2.5L	Glass	2.5 L
RP1203B-G4L	Glass	4 L
RP1203B-M25L	Metal	25 L
RP1203B-M200L	Metal	200 L

Tetrahydrofuran, HPLC — Code LC1203B

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.

Residue on Evaporation	0.001%	max.
Peroxide (as H_2O_2)	0.005%	max.
(at the time of manufacturing)		

Stabilized with about 250 ppm BHT.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
LC1203B-G500ML	Glass	500 mL
LC1203B-G1L	Glass	1 L

Cat No.	Package	Size
LC1203B-G2.5L	Glass	2.5 L
LC1203B-G4L	Glass	4 L

Tetrahydrofuran, Anhydrous (20 ppm) — Code AH1201B

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.002%	max.
Acidity (mEq./g.)	0.0005	max.

Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Peroxide (as H_2O_2)	0.005%	max.

Stabilized with about 250 ppm BHT.

Cat No.	Package	Size
AH1201B-G500ML	Glass	500 mL
AH1201B-G1L	Glass	1 L

Cat No.	Package	Size
AH1201B-G2.5L	Glass	2.5 L
AH1201B-G4L	Glass	4 L

Tetrahydrofuran, Anhydrous (50 ppm) — Code AH1204B

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.
Acidity (mEq./g.)	0.0005	max.

Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.001%	max.
Peroxide (as H_2O_2)	0.005%	max.

Stabilized with about 250 ppm BHT.

Cat No.	Package	Size
AH1204B-G500ML	Glass	500 mL
AH1204B-G1L	Glass	1 L

Cat No.	Package	Size
AH1204B-G2.5L	Glass	2.5 L
AH1204B-G4L	Glass	4 L

Tetrahydrofuran, Peptide Synthesis — Code PS1203B

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.

Residue on Evaporation	0.001%	max.
Peroxide (as H_2O_2)	0.005%	max.
Free Amines	0.001%	max.

Stabilized with about 250 ppm BHT.

Cat No.	Package	Size
PS1203B-G500ML	Glass	500 mL
PS1203B-G1L	Glass	1 L

Cat No.	Package	Size
PS1203B-G2.5L	Glass	2.5 L
PS1203B-G4L	Glass	4 L

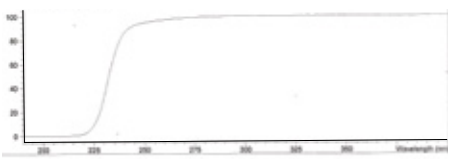
Tetrahydrofuran, HPLC — Code LC1200

Specifications

Assay (by GC.)	99.9%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Peroxide (as H_2O_2)	0.005%	max.
(at the time of manufacturing)		
UV Transmission Levels (%T)		
280 nm	99%	min.
250 nm	80%	min.
240 nm	70%	min.
230 nm	35%	min.
218 nm	30%	min.

Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1200-G500ML	Glass	500 mL
LC1200-G1L	Glass	1 L

Cat No.	Package	Size
LC1200-G2.5L	Glass	2.5 L
LC1200-G4L	Glass	4 L

Tetrahydrofuran, LC-MS — Code LM1200

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Peroxide (as H_2O_2),	0.005%	max.
(at the time of manufacturing)		
UV Transmission Levels (%T)		
280 nm	99%	min.
270 nm	88%	min.
245 nm	55%	min.
230 nm	35%	min.
Gradient Specification		
at 254 nm	15	mAU max.
at 280 nm	3	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	1.0	ppb max.
Aluminium (Al)	20	ppb max.
Barium (Ba)	50	ppb max.

Bismuth (Bi)	50	ppb max.
Cadmium (Cd)	50	ppb max.
Calcium (Ca)	30	ppb max.
Chromium (Cr)	20	ppb max.
Cobalt (Co)	20	ppb max.
Copper (Cu)	10	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	50	ppb max.
Magnesium (Mg)	30	ppb max.
Manganese (Mn)	20	ppb max.
Molybdenum (Mo)	50	ppb max.
Nickel (Ni)	20	ppb max.
Potassium (K)	50	ppb max.
Silver (Ag)	50	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	50	ppb max.
Tin (Sn)	50	ppb max.
Zinc (Zn)	50	ppb max.
Suitable for LC-MS	50	ppb max.
(ESI positive as Reserpine)		

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LM1200-G500ML	Glass	500 ML
LM1200-G1L	Glass	1 L

Cat No.	Package	Size
LM1200-G2.5L	Glass	2.5 L
LM1200-G4L	Glass	4 L

Tetrahydrofuran, ULC-MS — Code UM1200

Specifications

Assay (by GC.)	99.95%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	5	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0001%	max.
Peroxide (as H_2O_2),	0.005%	max.
(at the time of manufacturing)		
UV Transmission Levels (%T)		
280 nm	99%	min.
270 nm	88%	min.
245 nm	55%	min.
235 nm	40%	min.
215 nm	30%	min.
Gradient Specification		
at 254 nm	10	mAU max.
at 280 nm	3	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	1.0	ppb max.
Aluminium (Al)	10	ppb max.
Barium (Ba)	10	ppb max.

Bismuth (Bi)	20	ppb max.
Cadmium (Cd)	20	ppb max.
Calcium (Ca)	30	ppb max.
Chromium (Cr)	10	ppb max.
Cobalt (Co)	10	ppb max.
Copper (Cu)	10	ppb max.
Iron (Fe)	20	ppb max.
Lead (Pb)	20	ppb max.
Lithium (Li)	20	ppb max.
Magnesium (Mg)	30	ppb max.
Manganese (Mn)	10	ppb max.
Molybdenum (Mo)	20	ppb max.
Nickel (Ni)	10	ppb max.
Potassium (K)	30	ppb max.
Silver (Ag)	20	ppb max.
Sodium (Na)	50	ppb max.
Strontium (Sr)	20	ppb max.
Tin (Sn)	20	ppb max.
Zinc (Zn)	20	ppb max.
Suitable for LC-MS	20	ppb max.
(ESI positive as Reserpine)		

Suitable for UHPLC / Ultra HPLC / CC / SFC - instruments.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
UM1200-G500ML	Glass	500 ML
UM1200-G1L	Glass	1 L

Cat No.	Package	Size
UM1200-G2.5L	Glass	2.5 L
UM1200-G4L	Glass	4 L

Tetrahydrofuran, UV-IR — Code IR1200

Specifications

Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
UV Transmission Levels (%T)		
300 nm	98%	min.
280 nm	95%	min.
260 nm	75%	min.
250 nm	60%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1200-G500ML	Glass	500 mL
IR1200-G1L	Glass	1 L

Cat No.	Package	Size
IR1200-G2.5L	Glass	2.5 L
IR1200-G4L	Glass	4 L

Tetrahydrofuran, Anhydrous (50 ppm) — Code AH1202

Specifications

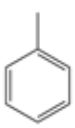
Assay (by GC.)	99.9%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.

Acidity (mEq./g.)	0.0005	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0005%	max.
Peroxide (as H_2O_2)	0.005%	max.

Cat No.	Package	Size
AH1202-G500ML	Glass	500 mL
AH1202-G1L	Glass	1 L

Cat No.	Package	Size
AH1202-G2.5L	Glass	2.5 L
AH1202-G4L	Glass	4 L

TOLUENE



$C_6H_5CH_3$	FW. 92.14	Density =	0.870 kg/L
CAS-No.	108-88-3	Melting Point	-95 C°
UN No.	1294	Boiling Point	110.6 C°
EC No.	203-625-9	EC-Index-No	601-021-00-3
Class:	3	Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H361d, H373, H412; P203, P210, P233, P240, P242, P243, P260, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P318, P319, P331, P332 + P317, 362 + P364, P403 + P235, P405

Toluene, AR — Code AR1207

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.001%	max.

Substances darkened by sulfuric acid	Passes test	
Sulfur Compounds (S)	0.0003%	max.
Benzene	0.1	max.
Non-Aromatics	1.5%	max.
Acid wash color	No.2	max.

Cat No.	Package	Size
AR1207-G500ML	Glass	500 mL
AR1207-G1L	Glass	1 L
AR1207-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1207-G4L	Glass	4 L
AR1207-M20L	Metal	20 L
AR1207-M200L	Metal	200 L

Toluene, RCI Premium — Code RP1347

Specifications

(Meet A.C.S. Specifications)

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.
Residue on Evaporation	0.0005%	max.
Sulfur Compounds (S)	0.003%	max.
Benzene (GC.)	0.02%	max.
Thiophene	0.0001%	max.
Substances darkened by sulfuric acid	Passes test	
Chloride (Cl)	0.5	ppm max.
Sulfate (SO_4)	1	ppm max.
Aluminium (Al)	0.2	ppm max.
Arsenic (As)	0.02	ppm max.
Antimony (Sb)	0.02	ppm max.
Barium (Ba)	0.05	ppm max.
Beryllium (Be)	0.02	ppm max.
Bismuth (Bi)	0.1	ppm max.
Boron (B)	0.02	ppm max.
Cadmium (Cd)	0.05	ppm max.

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.02	ppm max.
Cobalt (Co)	0.02	ppm max.
Copper (Cu)	0.02	ppm max.
Gallium (Ga)	0.02	ppm max.
Gold (Au)	0.05	ppm max.
Indium (In)	0.02	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Lithium (Li)	0.02	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.02	ppm max.
Molybdenum (Mo)	0.05	ppm max.
Nickel (Ni)	0.02	ppm max.
Platinum (Pt)	0.02	ppm max.
Silver (Ag)	0.02	ppm max.
Thallium (Tl)	0.05	ppm max.
Tin (Sn)	0.1	ppm max.
Titanium (Ti)	0.05	ppm max.
Vanadium (V)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.
Zirconium (Zr)	0.02	ppm max.

Cat No.	Package	Size
RP1347-G500ML	Glass	500 mL
RP1347-G1L	Glass	1 L
RP1347-G2.5L	Glass	2.5 L

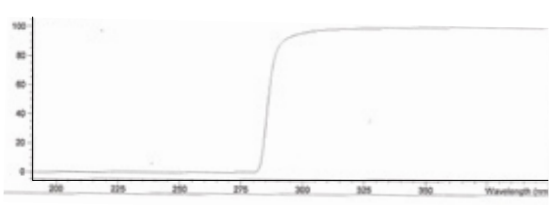
Cat No.	Package	Size
RP1347-G4L	Glass	4 L
RP1347-M20L	Metal	20 L
RP1347-M200L	Metal	200 L

Toluene, HPLC — Code LC1347

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.
Residue on Evaporation	0.0005%	max.
Sulfur Compounds (S)	0.003%	max.
Substances darkened by sulfuric acid	Passes test	
UV Transmission Levels (%T)		
350 nm	99%	min.
330 nm	98%	min.
310 nm	90%	min.
300 nm	80%	min.
290 nm	50%	min.
Fluorescence (as quinine)		
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1347-G500ML	Glass	500 mL
LC1347-G1L	Glass	1 L

Cat No.	Package	Size
LC1347-G2.5L	Glass	2.5 L
LC1347-G4L	Glass	4 L

Toluene, GC-MS — Code GM1347

Specifications

Assay (by GC.)	99.80%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.

Residue on Evaporation	0.0003%	max.
Sulfur Compounds (S)	0.003%	max.
Substances darkened by sulfuric acid	Passes test	
GC-MSD (as n-Tetradecane standard)	3	ng/ml max.
Single impurity peak,		
(retention range n-undecane to n-tetracontane)		

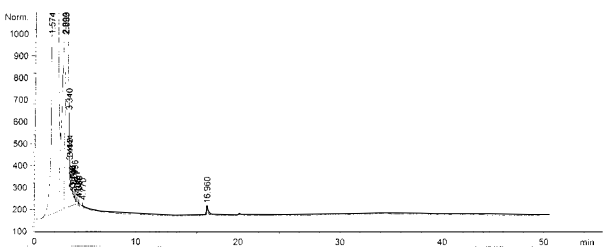
Cat No.	Package	Size
GM1347-G500ML	Glass	500 mL
GM1347-G1L	Glass	1 L

Cat No.	Package	Size
GM1347-G2.5L	Glass	2.5 L
GM1347-G4L	Glass	4 L

Toluene, Pesticide — Code PC1347

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.
Sulfur Compounds (S)	0.003%	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
Single impurity peak		



Cat No.	Package	Size
PC1347-G500ML	Glass	500 mL
PC1347-G1L	Glass	1 L

Cat No.	Package	Size
PC1347-G2.5L	Glass	2.5 L
PC1347-G4L	Glass	4 L

Toluene, LVI-GC — Code LV1347

Specifications

Assay (by GC.)	99.80%	min.
Identity (IR)	Passes test	
Appearance	Clear	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.
Residue on Evaporation	0.0003%	max.

Substances darkened by sulfuric acid	Passes test	
Sulfur Compounds (S)	0.003%	max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1347-G500ML	Glass	500 nL
LV1347-G1L	Glass	1 L

Cat No.	Package	Size
LV1347-G2.5L	Glass	2.5 L
LV1347-G4L	Glass	4 L

Toluene, UV-IR — Code IR1347

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.
Residue on Evaporation	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	

UV Transmission Levels (%T)		
350 nm	98%	min.
340 nm	96%	min.
330 nm	95%	min.
320 nm	90%	min.
Fluorescence (as quinine)		
at 365 nm	2	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1347-G500ML	Glass	500 mL
IR1347-G1L	Glass	1 L

Cat No.	Package	Size
IR1347-G2.5L	Glass	2.5 L
IR1347-G4L	Glass	4 L

Toluene, Anhydrous (50 ppm) — Code AH1348

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.005%	max.

Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0004	max.
Residue on Evaporation	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	

Cat No.	Package	Size
AH1348-G500ML	Glass	500 mL
AH1348-G1L	Glass	1 L

Cat No.	Package	Size
AH1348-G2.5L	Glass	2.5 L
AH1348-G4L	Glass	4 L

Toluene, Peptide Synthesis — Code PS1347

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.

Alkalinity (mEq./g.)	0.0004	max.
Residue on Evaporation	0.0005%	max.
Substances darkened by sulfuric acid	Passes test	
Free Amines	0.001%	max.

Cat No.	Package	Size
PS1347-G500ML	Glass	500 mL
PS1347-G1L	Glass	1 L

Cat No.	Package	Size
PS1347-G2.5L	Glass	2.5 L
PS1347-G4L	Glass	4 L

Toluene, Semig — Code SM1207

Specifications

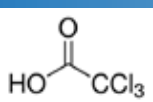
Assay (by GC.)	99.8%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.03%	max.
Acidity (µEq./g.)	0.2	max.
Residue on Evaporation	5	ppm max.
Substances darkened by sulfuric acid	Passes Test	
Sulfur Compounds (as S)	0.003%	max.
Chloride (Cl)	3	ppm max.
Phosphate (PO_4)	1	ppm max.
Heavy metals (as Pb)	1	ppm max.
Aluminium (Al)	1	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Barium (Ba)	1	ppm max.
Boron (B)	0.2	ppm max.
Cadmium (Cd)	1	ppm max.
Calcium (Ca)	1	ppm max.
Chromium (Cr)	0.5	ppm max.

Cobalt (Co)	0.1	ppm max.
Copper (Cu)	0.1	ppm max.
Gallium (Ga)	0.5	ppm max.
Germanium (Ge)	1	ppm max.
Gold (Au)	0.5	ppm max.
Iron (Fe)	0.1	ppm max.
Lithium (Li)	1	ppm max.
Magnesium (Mg)	1	ppm max.
Manganese (Mn)	1	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	1	ppm max.
Silicon (Si)	1	ppm max.
Silver (Ag)	0.5	ppm max.
Sodium (Na)	1	ppm max.
Strontium (Sr)	1	ppm max.
Tin (Sn)	1	ppm max.
Zinc (Zn)	1	ppm max.

Cat No.	Package	Size
SM1207-G500ML	Glass	500 mL
SM1207-G1L	Glass	1 L
SM1207-G2.5L	Glass	2.5 L

Cat No.	Package	Size
SM1207-G4L	Glass	4 L
SM1207-M20L	Metal	20 L
SM1207-M200L	Metal	200 L

TRICHLOROACETIC ACID



CCl_3CO_2H	FW. 163.38	Density =	1.63 g/cm³
CAS-No.	76-03-9	Melting Point	54-56 C°
UN No.	1839	Boiling Point	197 C°
EC No.	200-927-2	EC-Index-No	607-004-00-7
Class:	8	Packing Group:	II

Danger

GHS: H314, H410; P260, P264, P273, P280, P301 + P330 + P331, P302 + P361 + P354, P304 + P340, P305 + P354 + P338, P316, P363, P391, P405

Trichloroacetic acid, AR — Code AR1317

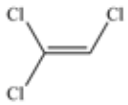
Specifications

Assay	99.5%	min.
Substances reducing $KMnO_4$	0.0002%	max.
Chloride (Cl)	0.001%	max.
Total nitrogen (N)	50	ppm max.
Total phosphorus (P)	10	ppm max.
Total silicon (Si)	20	ppm max.
Total sulfur (S)	200	ppm max.
Calcium (Ca)	10	ppm max.

Copper (Cu)	2	ppm max.
Iron (Fe)	5	ppm max.
Lead (Pb)	2	ppm max.
Magnesium (Mg)	10	ppm max.
Potassium (K)	10	ppm max.
Sodium (Na)	20	ppm max.
Zinc (Zn)	5	ppm max.

Cat No.	Package	Size
AR1317-G500G	Glass	500 G

TRICHLOROETHYLENE



Cl_2CCHCl	FW. 131.79	Density =	1.460 kg/L
CAS-No.	79-01-6	Melting Point	-86 C°
UN No.	1710	Boiling Point	87 C°
EC No.	201-167-4	EC-Index-No	602-027-00-9
Class:	6.1	Packing Group:	III

Danger

GHS: H315, H317, H319, H336, H341, H350, H412; P203, P261, P264, P271,P272, P273, P280, P302 + P352, P304 + P340, P305 + P351 + P338, P318, P319, P333 + P317, P337 + P317, P362 + P364, P403 + P233, P405

Trichloroethylene, AR — Code AR1205

Specifications

Assay (by GC.)	99.5%	min.	Acidity (mEq./g.)	0.0005	max.
Water (by Coulometry)	0.03%	max.	Residue on Evaporation	0.001%	max.

Cat No.	Package	Size
AR1205-G500ML	Glass	500 mL
AR1205-G1L	Glass	1 L
AR1205-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1205-G4L	Glass	4 L
AR1205-M20L	Metal	20 L
AR1205-M200L	Metal	200 L

Trichloroethylene, RCI Premium — Code RP1205

Specifications

Assay (by GC.)	99.5%	min.	Cadmium (Cd)	0.02	ppm max.
Identity (IR)	Passes test		Calcium (Ca)	0.2	ppm max.
Color (APHA)	10	max.	Chromium (Cr)	0.01	ppm max.
Water (by Coulometry)	0.01%	max.	Cobalt (Co)	0.01	ppm max.
Acidity (mEq./g.)	0.0001	max.	Copper (Cu)	0.01	ppm max.
Alkalinity (mEq./g.)	0.0003	max.	Iron (Fe)	0.05	ppm max.
Residue on Evaporation	0.001%	max.	Lead (Pb)	0.05	ppm max.
Free chlorine (Cl)	0.00003%	max.	Magnesium (Mg)	0.05	ppm max.
Heavy metals (as Pb)	0.0001%	max.	Manganese (Mn)	0.01	ppm max.
Aluminium (Al)	0.2	ppm max.	Nickel (Ni)	0.01	ppm max.
Barium (Ba)	0.05	ppm max.	Tin (Sn)	0.05	ppm max.
Boron (B)	0.01	ppm max.	Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1205-G500ML	Glass	500 mL
RP1205-G1L	Glass	1 L
RP1205-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1205-G4L	Glass	4 L
RP1205-M25L	Metal	25 L
RP1205-M200L	Metal	200 L

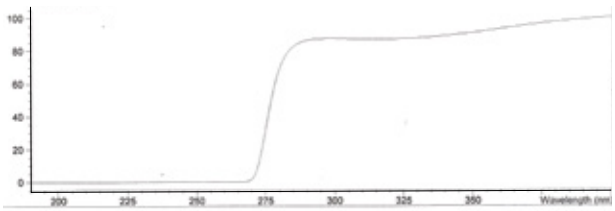
Trichloroethylene, HPLC — Code LC1205

Specifications

Assay (by GC.)	99.8%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
400 nm	98%	min.
350 nm	85%	min.
320 nm	80%	min.
300 nm	70%	min.
280 nm	50%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

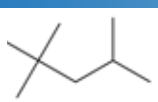
Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1205-G500ML	Glass	500 mL
LC1205-G1L	Glass	1 L

Cat No.	Package	Size
LC1205-G2.5L	Glass	2.5 L
LC1205-G4L	Glass	4 L

2, 2, 4 – TRIMETHYLPENTANE



$(CH_3)_2CHCH_2C(CH_3)_3$ FW. 114.23

CAS-No.	540-84-1	Density =	0.690 kg/L
UN No.	1262	Melting Point	-107 °C
EC No.	208-759-1	Boiling Point	99 °C
Class:	3	EC-Index-No	601-009-00-8
		Packing Group:	II

Danger

GHS: H225, H304, H315, H336, H410; P210, P233, P240, P242, P243, P261, P264, P271, P273, P280, P301 + P316, P302 + P352, P303 + P361 + P353, P304 + P340, P319, P331, P332 + P317, P362 + P364, P391, P403 + P235, P405

2,2,4-Trimethylpentane, AR — Code AR1206

Specifications (Meet A.C.S. Specifications)

Assay (by GC.)	99.5%	min.
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.

Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.001%	max.
Sulfur Compounds (S)	0.001%	max.

Cat No.	Package	Size
AR1206-G500ML	Glass	500 mL
AR1206-G1L	Glass	1 L
AR1206-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1206-G4L	Glass	4 L
AR1206-M25L	Metal	25 L
AR1206-M200L	Metal	200 L

2,2,4-Trimethylpentane, RCI Premium — Code RP1206

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0003	max.
Residue on Evaporation	0.0006%	max.
Readily carbonizable substances	Passes test	
Sulfur Compounds (S)	0.001%	max.
Aluminium (Al)	0.2	ppm max.
Barium (Ba)	0.05	ppm max.
Boron (B)	0.01	ppm max.
Cadmium (Cd)	0.02	ppm max.

(Meet A.C.S. Specifications)

Calcium (Ca)	0.2	ppm max.
Chromium (Cr)	0.01	ppm max.
Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.01	ppm max.
Iron (Fe)	0.05	ppm max.
Lead (Pb)	0.05	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Tin (Sn)	0.05	ppm max.
Zinc (Zn)	0.05	ppm max.

Cat No.	Package	Size
RP1206-G500ML	Glass	500 mL
RP1206-G1L	Glass	1 L
RP1206-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1206-G4L	Glass	4 L
RP1206-M25L	Metal	25 L
RP1206-M200L	Metal	200 L

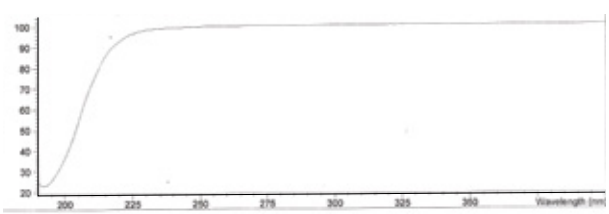
2,2,4-Trimethylpentane, HPLC — Code LC1206

Specifications

Assay (by GC.)	99.5%	min.
Appearance	Clear and colorless liquid	
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0002	max.
Alkalinity (mEq./g.)	0.0002	max.
Residue on Evaporation	0.0002%	max.
Sulfur Compounds (S)	0.005%	max.
UV Transmission Levels (%T)		
250 nm	99%	min.
240 nm	98%	min.
230 nm	95%	min.
220 nm	80%	min.
210 nm	50%	min.

Fluorescence (as quinine)		
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.



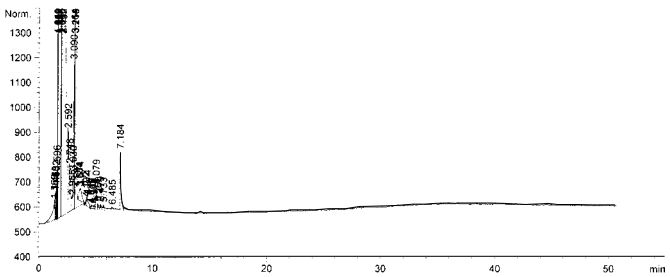
Cat No.	Package	Size
LC1206-G500ML	Glass	500 mL
LC1206-G1L	Glass	1 L

Cat No.	Package	Size
LC1206-G2.5L	Glass	2.5 L
LC1206-G4L	Glass	4 L

2,2,4-Trimethylpentane, Pesticide — Code PC1206

Specifications

Assay (by GC.)	99.8%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0002%	max.
Substances darkened by sulfuric acid	Passes test	
Sulfur Compounds (as S)	0.001%	max.
GC/ECD (as Lindane standard)	5	ng/L max.
Single impurity peak		
GC/FID (as n-Tetradecane standard)	5	µg/L max.
ingle impurity peak		



Cat No.	Package	Size
PC1206-G500ML	Glass	500 mL
PC1206-G1L	Glass	1 L

Cat No.	Package	Size
PC1206-G2.5L	Glass	2.5 L
PC1206-G4L	Glass	4 L

2,2,4-Trimethylpentane, LV-GC — Code LV1206

Specifications

Assay (by GC.)	99.50%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.02%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0003%	max.
Substances darkened by sulfuric acid	Passes test	

Sulfur Compounds (as S)	0.001%	max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		
Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas.

Cat No.	Package	Size
LV1206-G500ML	Glass	500 mL
LV1206-G1L	Glass	1 L

Cat No.	Package	Size
LV1206-G2.5L	Glass	2.5 L
LV1206-G4L	Glass	4 L

2,2,4-Trimethylpentane, UV-IR — Code IR1206

Specifications

Assay (by GC.)	99.5%	min.
Identity (IR)	Passes test	
Color (APHA)	10	max.
Water (by Coulometry)	0.01%	max.
Acidity (mEq./g.)	0.0005	max.
Residue on Evaporation	0.0005%	max.
UV Transmission Levels (%T)		
250 nm	98%	min.

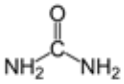
240 nm	95%	min.
230 nm	90%	min.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	1	ppb max.

Product passed through 0.2 micron final filter.

Cat No.	Package	Size
IR1206-G500ML	Glass	500 mL
IR1206-G1L	Glass	1 L

Cat No.	Package	Size
IR1206-G2.5L	Glass	2.5 L
IR1206-G4L	Glass	4 L

UREA



NH_2CONH_2	FW. 60.06	Density =	1.34 g/cm^3
CAS-No.	57-13-6	Melting Point	133 °C
EC No.	200-315-5		

Urea, AR — Code AR1250

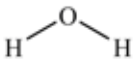
Specifications

Assay	99.0%	min.
Insoluble matter	0.01%	max.
Residue after ignition	0.01%	max.
Biuret ($C_2H_5N_3O_2$)	0.2%	max.
Chloride (Cl)	0.0005%	max.
Sulfate (SO_4)	0.001%	max.
Copper (Cu)	0.005%	max.
Iron (Fe)	0.001%	max.
Heavy metal (as Pb)	0.001%	max.

Cat No.	Package	Size
AR1250-P500G	Plastic	500 G

Cat No.	Package	Size
AR1250-P20KG	Plastic	20 kg

WATER



H_2O	FW. 18.02	Density =	1.00 kg/L
CAS-No.	7732-18-5	Melting Point	0 °C
		Boiling Point	100 °C

Water, AR — Code AR1210

Specifications

Residue on Evaporation	0.0005%	max.
Substances reducing permanganate	0.1	ppm max.
Chloride (Cl)	0.1	ppm max.
Nitrate (NO_3)	0.3	ppm max.
Phosphate (PO_4)	0.1	ppm max.
Silicate (SiO_2)	0.2	ppm max.
Sulfate (SO_4)	0.5	ppm max.
Cadmium (Cd)	0.01	ppm max.
Calcium (Ca)	0.05	ppm max.

Cobalt (Co)	0.01	ppm max.
Copper (Cu)	0.1	ppm max.
Iron (Fe)	0.01	ppm max.
Lead (Pb)	0.005	ppm max.
Magnesium (Mg)	0.05	ppm max.
Manganese (Mn)	0.01	ppm max.
Nickel (Ni)	0.01	ppm max.
Potassium (K)	0.1	ppm max.
Zinc (Zn)	0.01	ppm max.

Cat No.	Package	Size
AR1210-G500ML	Glass	500 mL
AR1210-G1L	Glass	1 L
AR1210-G2.5L	Glass	2.5 L
AR1210-G4L	Glass	4 L

Cat No.	Package	Size
AR1210-P2.5L	Plastic	2.5 L
AR1210-P4L	Plastic	4 L
AR1210-P20L	Plastic	20 L

Water (Deionized Water) — Code GN1056

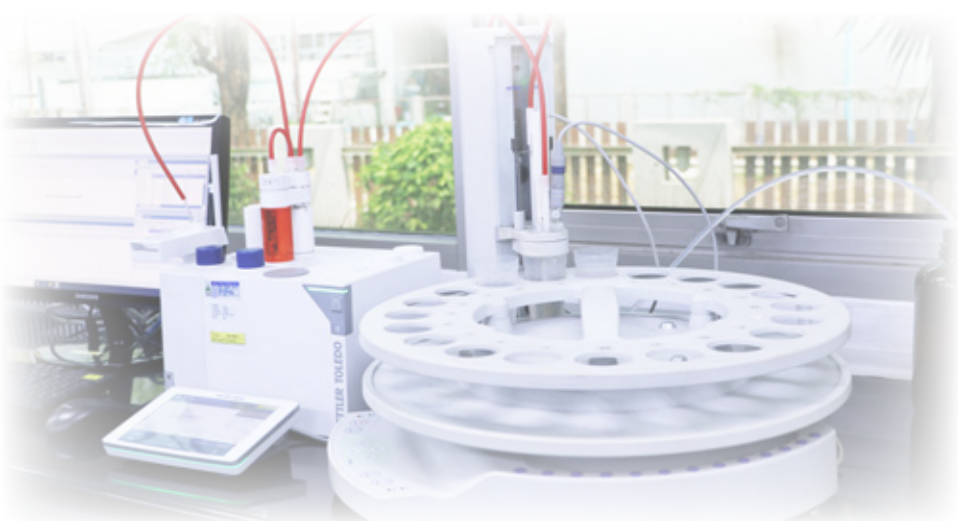
Specifications

Appearance	Clear, colorless solution
pH	5.0 - 7.0
Calcium (Ca)	No turbidity is produced.
Chloride (Cl)	No opalescence is produced.

Sulfate (SO_4)	No turbidity is produced.
Oxidizable Substance	The pink color does not completely disappear
Total Solid	Not more than 0.001 g/100/mL.

Cat No.	Package	Size
GN1056-G2.5L	Glass	2.5 L
GN1056-G4L	Glass	4 L
GN1056-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
GN1056-P20L	Plastic	20 L
GN1056-P200L	Plastic	200 L



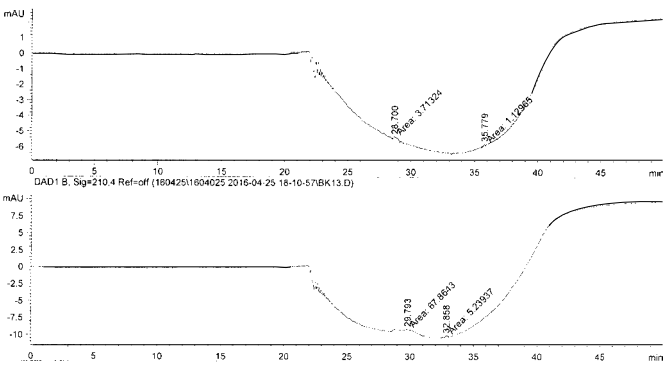
Water, HPLC — Code LC1210

Specifications

Appearance	Clear and colorless liquid	
Residue on Evaporation	0.0005%	max.
Conductivity (at the time of manufacturing), µS/cm	1	max.
pH (at the time of manufacturing)	5.0 – 7.0	
Gradient Specification 254 nm		
Largest peak	1	mAU max.
Fluorescence (as quinine)		
at 254 nm	1	ppb max.
at 365 nm	0.5	ppb max.

Determined by a 40 ml sample enrichment of C18 column followed by a gradient from 100% water to 100% acetonitrile at a rate of 5% per minute and a flow rate of 1 ml/ min.

Product passed through 0.2 micron final filter.



Cat No.	Package	Size
LC1210-G500ML	Glass	500 mL
LC1210-G1L	Glass	1 L
LC1210-G2.5L	Glass	2.5 L

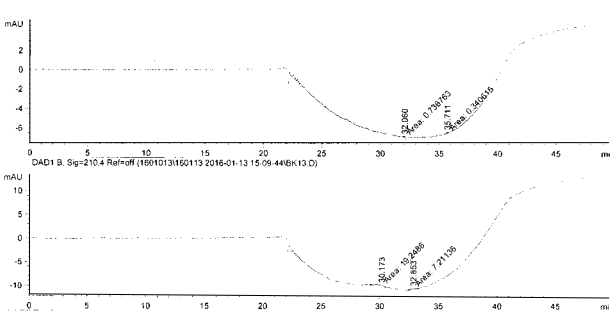
Cat No.	Package	Size
LC1210-G4L	Glass	4 L
LC1210-P2.5L	Plastic	2.5 L
LC1210-P4L	Plastic	4 L

Water, LC-MS — Code LM1210

Specifications

Appearance	Clear and colorless liquid	
Color (APHA)	5	max.
Acidity (as Acetic acid)	0.0002%	max.
Alkalinity (as Ammonia)	0.0002%	max.
Residue on Evaporation	0.0001%	max.
Chloride (Cl)	10	ppb max.
Fluoride (F)	10	ppb max.
Nitrate (NO_3)	100	ppb max.
Sulfate (SO_4)	100	ppb max.
UV Transmission Levels (%T)		
230 nm	99%	min.
200 nm	95%	min.
Gradient Specification		
at 210 nm	2.0	mAU max.
at 254 nm	1.0	mAU max.
Fluorescence (as quinine)		
at 254 nm	1.0	ppb max.
at 365 nm	0.5	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.
Cadmium (Cd)	5	ppb max.
Calcium (Ca)	10	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Sodium (Na)	20	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
Suitable for LC-MS (ESI positive as Reserpine)	10	ppb max.

Product passed through 0.1 micron final filter.



Cat No.	Package	Size
LM1210-G500ML	Glass	500 mL
LM1210-G1L	Glass	1 L
LM1210-G2.5L	Glass	2.5 L

Cat No.	Package	Size
LM1210-G4L	Glass	4 L
LM1210-P2.5L	Plastic	2.5 L
LM1210-P4L	Plastic	4 L

Water, ULC-MS — Code UM1210

Specifications

Appearance	Clear and colorless liquid	
Color (APHA)	5	max.
Resistivity (at the time of manufacturing),	18.2	min.
MohmXcm		
Acidity (as Acetic acid)	0.0002%	max.
Alkalinity (as Ammonia),	0.0002%	max.
(at the time of manufacturing)		
Residue on Evaporation	0.0001%	max.
Chloride (Cl)	10	ppb max.
Fluoride (F)	10	ppb max.
Nitrate (NO_3)	10	ppb max.
Phosphate (PO_4)	10	ppb max.
Sulfate (SO_4)	10	ppb max.
UV Transmission Levels (%T)		
230 nm	99%	min.
200 nm	95%	min.
Gradient Specification		
at 210 nm	1.0	mAU max.
at 254 nm	0.5	mAU max.
Fluorescence (as quinine)		
at 254 nm	0.3	ppb max.
at 365 nm	0.3	ppb max.
Aluminium (Al)	5	ppb max.
Barium (Ba)	5	ppb max.
Bismuth (Bi)	10	ppb max.
Cadmium (Cd)	5	ppb max.

Calcium (Ca)	10	ppb max.
Chromium (Cr)	5	ppb max.
Cobalt (Co)	5	ppb max.
Copper (Cu)	5	ppb max.
Iron (Fe)	10	ppb max.
Lead (Pb)	5	ppb max.
Lithium (Li)	10	ppb max.
Magnesium (Mg)	5	ppb max.
Manganese (Mn)	5	ppb max.
Molybdenum (Mo)	10	ppb max.
Nickel (Ni)	5	ppb max.
Potassium (K)	5	ppb max.
Silver (Ag)	10	ppb max.
Sodium (Na)	20	ppb max.
Strontium (Sr)	10	ppb max.
Tin (Sn)	5	ppb max.
Zinc (Zn)	5	ppb max.
TOC (at the time of manufacturing)	10	ppb max.
Suitable for LC-MS	5	ppb max.
(ESI positive as Reserpine)		
Suitable for LC-MS	20	ppb max.
(ESI negative as Reserpine)		
Filter test	Passes test	

Suitable for UHPLC / Ultra HPLC / CC / SFC - instruments.

Product passed through 0.1 micron final filter.

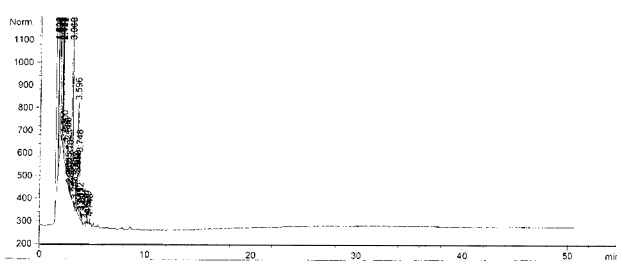
Cat No.	Package	Size
UM1210-G500ML	Glass	500 mL
UM1210-G1L	Glass	1 L
UM1210-G2.5L	Glass	2.5 L

Cat No.	Package	Size
UM1210-G4L	Glass	4 L
UM1210-P2.5L	Plastic	2.5 L
UM1210-P4L	Plastic	4 L

Water, Pesticide — Code PC1210

Specifications

Identity (IR)	Passes test	
Color (APHA)	10	max.
Residue on Evaporation	0.0003%	max.
Total Organic Carbon (TOC)	30	ppb max.
Conductivity y (at the time of manufacturing),	1	max.
(µS/cm)		
GC/ECD (as Lindane standard)	10	ng/L max.
Single impurity peak		



Product passed through 0.2 micron final filter.

Cat No.	Package	Size
PC1210-G500ML	Glass	500 mL
PC1210-G1L	Glass	1 L
PC1210-G2.5L	Glass	2.5 L

Cat No.	Package	Size
PC1210-G4L	Glass	4 L
PC1210-P2.5L	Plastic	2.5 L
PC1210-P4L	Plastic	4 L

Water, LVI-GC — Code LV1210

Specifications

Residue on Evaporation	0.0003%	max.
Conductivity (µS/cm)	1	max.
ECD (as lindane standard)	2	pg/ml max.
Single impurity peak		

Any hydrocarbon between C10 to C40	0.1	mg/L max.

Residual trace analysis concentration 500 : 0.5 mL.

Product passed through 0.1 micron final filter and bottled under inert gas

Cat No.	Package	Size
LV1210-G2.5L	Glass	2.5 L
LV1210-G4L	Glass	4 L
LV1210-P2.5L	Plastic	2.5 L

Cat No.	Package	Size
LV1210-P20L	Plastic	20 L
LV1210-P200L	Plastic	200 L

WIJS SOLUTION

UN No.	2920	Density =	1.06 kg/L
Class:	8 (3)	Packing Group:	II

Danger

GHS H226, H314; P210, P233, P240, P242, P243, P260, P264, P280, P301 + P330 + P331, P303 + P361 + P353, P304 + P340, P305 + P354 + P338, P316, P363, P403 + P235, P405

Wijs Solution — Code GN1211

Specifications

Application test	Passes test

According to PORIM* test methods.

*PORIM : Palm Oil Research Institute of Malaysia.

Cat No.	Package	Size
GN1211-G500ML	Glass	500 mL
GN1211-G1L	Glass	1 L

Cat No.	Package	Size
GN1211-G2.5L	Glass	2.5 L
GN1211-G4L	Glass	4 L

WIJS SOLUTION 0.1 N

UN No.	2920	Density =	1.06 kg/L
Class:	8 (3)	Packing Group:	II

Danger

GHS H226, H314; P210, P233, P240, P242, P243, P260, P264, P280, P301 + P330 + P331, P303 + P361 + P353, P304 + P340, P305 + P354 + P338, P316, P363, P403 + P235, P405

Wijs Solution 0.1N — Code GN1212

Specifications

Application test	Passes test

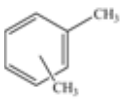
According to PORIM* test methods.

*PORIM : Palm Oil Research Institute of Malaysia.

Cat No.	Package	Size
GN1212-G500ML	Glass	500 mL
GN1212-G1L	Glass	1 L

Cat No.	Package	Size
GN1212-G2.5L	Glass	2.5 L
GN1212-G4L	Glass	4 L

XYLENE



$C_6H_4(CH_3)_2$	FW. 106.17	Density =	0.860 kg/L
CAS-No.	1330-20-7	Melting point	>-34 °C
UN No.	1307	Boiling point	137-143 °C
EC No.	215-535-7	EC-Index-No	601-022-00-9
Class:	3	Packing Group:	III

Danger

GHS: H226, H304, H312 + H332, H315, H319, H335, H373; P210, P233, P240, P242, P243, P260, P264, P271, P280, P301+P316, P302 + P352, P303 + P361 + P353, P304 + P340, P305 + P351 + P338,P319, P331, P332 + P317, P337 + P317, P362 + P364, P403 + P235, P405

Xylene, AR — Code AR1213

Specifications (Meet A.C.S. Specifications)

Assay (by GC. – Total of C_8H_{10} isomers)	98.5%	min.	Benzene (GC.)	0.1%	max.
Color (APHA)	10	max.	Toluene (GC.)	0.5%	max.
Water (by Coulometry)	0.05%	max.	Substances darkened by sulfuric acid	Passes test	
Acidity (mEq./g.)	0.0005	max.	Sulfur Compounds (S)	0.001%	max.
Residue on Evaporation	0.002%	max.			

Cat No.	Package	Size
AR1213-G500ML	Glass	500 mL
AR1213-G1L	Glass	1 L
AR1213-G2.5L	Glass	2.5 L

Cat No.	Package	Size
AR1213-G4L	Glass	4 L
AR1213-M20L	Metal	20 L
AR1213-M200L	Metal	200 L

Xylene, RCI Premium — Code RP1354

Specifications (Meet A.C.S. Specifications)

Assay (by GC. : Total of C_8H_{10} isomers)	98.5%	min.	Barium (Ba)	0.05	ppm max.
Identity (IR)	Passes test		Boron (B)	0.01	ppm max.
Appearance	Clear		Cadmium (Cd)	0.02	ppm max.
Color (APHA)	10	max.	Calcium (Ca)	0.2	ppm max.
Water (by Coulometry)	0.03%	max.	Chromium (Cr)	0.01	ppm max.
Acidity (mEq./g.)	0.0005	max.	Cobalt (Co)	0.01	ppm max.
Alkalinity (mEq./g.)	0.0003	max.	Copper (Cu)	0.01	ppm max.
Residue on Evaporation	0.001%	max.	Iron (Fe)	0.05	ppm max.
Benzene (GC.)	0.1%	max.	Lead (Pb)	0.05	ppm max.
Ethylbenzene (GC.)	25%	max.	Magnesium (Mg)	0.05	ppm max.
Toluene (GC.)	0.2%	max.	Manganese (Mn)	0.01	ppm max.
Substances darkened by sulfuric acid	Passes test		Nickel (Ni)	0.01	ppm max.
Sulfur Compounds (S)	0.002%	max.	Tin (Sn)	0.05	ppm max.
Thiophene	Passes test		Zinc (Zn)	0.05	ppm max.
Aluminium (Al)	0.2	ppm max.			

Cat No.	Package	Size
RP1354-G500ML	Glass	500 mL
RP1354-G1L	Glass	1 L
RP1354-G2.5L	Glass	2.5 L

Cat No.	Package	Size
RP1354-G4L	Glass	4 L
RP1354-M20L	Metal	20 L
RP1354-M200L	Metal	200 L

Xylene, Semig — Code SM1213

Specifications

Assay (by GC.)	99.0%	min.
Water (by Coulometry)	0.02%	max.
Acidity (µEq./g.)	0.3	max.
Residue on Evaporation	5	ppm max.
Chloride (Cl)	3	ppm max.
Phosphate (PO_4)	1	ppm max.
Aluminium (Al)	0.1	ppm max.
Arsenic and Antimony (as As)	0.01	ppm max.
Boron (B)	0.1	ppm max.
Calcium (Ca)	0.1	ppm max.
Chromium (Cr)	0.1	ppm max.

Copper (Cu)	0.1	ppm max.
Gold (Au)	0.1	ppm max.
Iron (Fe)	0.1	ppm max.
Lead (Pb)	0.1	ppm max.
Magnesium (Mg)	0.1	ppm max.
Manganese (Mn)	0.1	ppm max.
Nickel (Ni)	0.1	ppm max.
Potassium (K)	0.1	ppm max.
Sodium (Na)	0.1	ppm max.
Tin (Sn)	0.1	ppm max.
Zinc (Zn)	0.1	ppm max.

Cat No.	Package	Size
SM1213-G500ML	Glass	500 ML
SM1213-G1L	Glass	1 L
SM1213-G2.5L	Glass	2.5 L

Cat No.	Package	Size
SM1213-G4L	Glass	4 L
SM1213-M20L	Metal	20 L
SM1213-M200L	Metal	200 L

ZINC SULFATE HEPTAHYDRATE

$ZnSO_4 \cdot 7H_2O$

$ZnSO_4.7H_2O$	FW. 287.54	Density =	1.97 g/cm^3
CAS-No.	7446-20-0	Melting Point	100 C°
UN No.	3077		
EC No.	231-793-3	EC-Index-No	030-006-00-9
Class:	9	Packing Group:	III

Danger

GHS: H302, H318, H410; P264, P270, P273, P280, P301 + P317, P305 + P354 + P338, P330, P391

Zinc Sulfate Heptahydrate, AR — Code AR1214

Specifications

Description	White crystalline powder	
Assay	99.5%	min.
Reaction	pH 4.4 - 6.0	
Insoluble matter	0.01%	max.
Total nitrogen (N)	0.0005%	max.
Chloride (Cl)	0.0005%	max.
Asenic (As)	0.0001%	max.
Cadmium (Cd)	0.0005%	max.

Calcium (Ca)	0.001%	max.
Copper (Cu)	0.0005%	max.
Iron (Fe)	0.0005%	max.
Lead (Pb)	0.001%	max.
Manganese (Mn)	0.0003%	max.
Potassium (K)	0.001%	max.
Sodium (Na)	0.001%	max.

Cat No.	Package	Size
AR1214-P500G	Plastic	500 g
AR1214-P1G	Plastic	1 kg

Cat No.	Package	Size
AR1214-P5KG	Plastic	5 kg
AR1214-P25KG	Plastic	25 kg

SAFETY WITH RCI LABSCAN

Chemical product can be harmful and should only be handled by trained personnel who are familiar with the potential hazards.

Working with chemical requires a responsible attitude from the user and purchaser. RCI Labscan can not and will not take responsibility for the applications of our products.

Hazardous products are labeled with appropriate hazard symbols along with relevant risk and safety phrases. However, products that are labeled without hazard symbols or risk and safety phrases do not imply that safety precaution is not necessary.

Safety data sheet is available on request or to be downloaded from RCI Labscan website : www.rcilabscan.com

HAZARD SYMBOLS

GHS Pictogram (According to Globally Harmonized System of Classification and Labelling of Chemicals) and EC Directive 1272/2008.

Flammable

Hazard: Flammable substances. Self-reactive substances pyrophoric and self-heating substances.

Precaution: Keep away from all sources of ignition. No smoking, keep container tightly.

Hazardous

Hazard: Skin irritant. Eyes irritant. Sensitization (dermal).

Precaution: A substance which may have an irritating effect on skin, eyes and respiratory organs, possibility of sensitization by skin contact.

Oxidizing

Hazard: Oxidizing substances. Organic peroxides.

Precaution: Oxidizing substances can cause fire in contact with combustible material or promote fire once started and impede fire fighting.
Do not breath vapour

Environmental Hazard

Hazard: Environmental toxicity.

Precaution: Toxic for aquatic organisms. May cause long term adverse effects in the aquatic environment. Do not allow to enter waters, waste water or soil.

Corrosive

Hazard: Skin corrosive. Eyes corrosive. Corrosive to metals. Causes burns.

Precaution: Contact with these substances causes destruction of living tissue as well as equipment. Do not inhale vapor. Never add water to this product.

Explosive

Hazard: Explosives substances or articles. Self-reactive substances.

Precaution: A substance which either may explode under the effect of flame or which is more sensitive to shocks or friction than disturbance.

Human Health

Hazard: Sensitization (Respiratory) Mutagenicity. Carcinogenicity. Reproductive toxicity. Target organ toxicity.

Precaution: A substance which if inhaled, ingested or allowed to penetrate the skin may involve limited health risks. Possible risk of irreversible effects by immediate, prolonged or repeated exposure to these substances.

compressed gase

Hazard: Associated with compressed gase include oxygen displacemnt, fires, explosions, and toxic gas exposures as well as the physical hazards associated with high pressure system.

Toxic

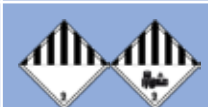
Hazard: Acute toxicity.

Precaution: All contact with the human body must be avoided as it may cause severe or lethal damage to health.
A substance which if inhaled, ingested or allowed to penetrate the skin may cause serious or chronic health damage and even death. Possible risk of irreversible damage by immediate, prolonged or repeated exposure.

HAZARDOUS TRANSPORTATION AND HANDLING CONCERNS

Hazardous materials are classified by the tariff system. It is important for international shipment of hazardous materials. It is shown in IMDG code (International Maritime Organization of the UN). Transportation of dangerous Substances as following according to Recommendation on the Transport of Dangerous Goods, Model Regulation, Sixteenth revised edition, United Nations.

No.	CLASS	Division	Pictogram
1	Explosive substances or articles	1.1 Substance and article which have a mass explosion hazard	
		1.2 Substances and articles which have a projection hazard but not a mass explosion hazard	
		1.3 Substance and article which have a fire hazard and either a minor 6 post hazard or a minor projection hazard or both, but not a mass explosion hazard	
		1.4 Substance and article which present no significant hazard	
		1.5 Very insensitive substances which have a mass explosion hazard	
		1.6 Extremely insensitive articles which do not have a mass explosion hazard	
2	Gases	2.1) Flammable gases	
		2.2) Non-flammable,non-toxic gases	
		2.3) Toxic gases	
3	Flammable liquids		

No.	CLASS	Division	Pictogram
4	Flammable solids; substances liable to spontaneous combustion; substances which, on contact with water, emit flammable gases	4.1) Flammable solid, self-reactive substances, solid desensitized explosives and polymerizing substances	
		4.2) Substances liable to spontaneous combustion	
		4.3) Substances which,in contact with water,emit flammable gases	
5	Oxidizing substances and organic peroxides	5.1) Oxidizing substances	
		5.2) Organic peroxides	
6	Toxic an infectious substances	6.1) Toxic substances	
		6.2) Infectious substances	
7	Radioactive material		
8	Corrosive substances		
9	Miscellaneous dangerous substances and articles,including environmentally hazardous substances		

The GHS Hazard Grouping

The Physical Hazard

	Description	Product Samples
Flammable	- Flammables (Gases, Aerosols, Liquids and Solids) - Substances which in contact with Water Emit Flammable Gases - Self-Reactive Substances - Pyrophorics (Liquids, Solids) - Self-Heating Substances - Organic Peroxides - Desensitized Explosives	- Acetic Acid - Acetone - Acetonitrile - Chorobenzene - Cyclohexane - Diethy Ether - 1, 4-Dioxan - Ethanol - Ethyl Acetate - Methanol - Methy Ethyl Ketone - n-Heptane - n-Hexane - Petroleum Ether - Propan-2-ol - Toluene
Oxidizing	- Oxidizing (Gases, Liquids Solids)	- Ammonium Persulfate - Nitric Acid - Potassium Iodate - Potassium Nitrate - Silver Nitrate - Sodium Nitrate - Sodium Nitrite
Corrosive	- Substances Corrosive to Metal	- Acetic Acid - Hydrochloric Acid - Nitric Acid - Phosphoric Acid - Potassium Hydroxide - Silver Nitrate - Sodium Hydroxide - Sulfuric Acid
Explosive	- Explosives - Self-Reactive Substances - Organic Peroxides	
Compressed gas	- Gases Under Prssure	

The Health Hazard

	Description	Product Samples
Human Health	- Germ Cell Mutagenicity - Carcinogenicity - Toxic to Reproduction - Aspiration Toxicity - Specific Target Organ / Systemic Toxicity – Single Exposure - Specific Target Organ / Systemic Toxicity = Repeated Exposure	- Chloroform - Cyclohexane - 1,2-Dichloroethane - Dichloromethane - Dimethylformamide - 1-4-Dioxan - Methanol - n-Heptane - n-Hexane - n-Octane - n-Pentane - Petroleum Ether - Tetrahydrofuran - Toluene - 2,2,4-Trimethylpentane - Xylene
Hazardous	- Acute Toxicity (Low) - Eye Irritation - Respiratory or Skin Sensitization	- Acetone - Acetonitrile - Diethyl Ether - Ethanol - Ethyl Acetate - Hydrochloric Acid - n-Hexane - Pretoleum Ether - Potassium Hydroxide - Tetrahydrofuran
Corrosive	- Skin Corrosive / Irritation - Serious Eye Damage / Eye Irritation	- Acetic Acid - Hydrochloric Acid - Nitric Acid - Phosphoric Acid - Potassium Hydroxide - Silver Nitrate - Sodium Hydroxide - Sulfuric Acid
Toxic	- Acute Toxicity (High)	- Chloroform - Formaldehyde - Methanol - Methyl Orange - Sodium Nitrite

The Environment Hazard

	Description	Product Samples
Environment Hazard	- Hazardous to the Aquatic Environment - Hazardous to the Ozone Layer	- Cyclohexane - Iodine (Resublimed) - n-Hexane - Petroleum Ether - Silver Nitrate

Safety with
RCI Labscan
RCI Labscan Limited
Hi guys, Mr.RCI Labscan is here to guide you to transport the chemicals safely!
To start with, use your dominant hand to hold the bottle handle.
Then use the other hand to hold on the bottle, and just pull it straight up.
After that, move the other hand to support the bottom of the bottle while carrying.
Lastly, just use a cart if it is too heavy.
10 cm.
*Make sure that the chemicals are placed at least 10 cm. from the edges while working.

Hazard statement codes for physical hazardsCONCERNS

H200:	Unstable explosive
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
H206:	Fire, blastor projection hazard; increased risk of explosion if desensitizing agent is reduced
H207:	Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced
H208:	Fire hazard; increased risk of explosion if desensitizing agent is reduced
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
H227:	Combustible liquid
H228:	Flammable solid
H229:	Pressurized container: may burst if heated
H230:	May react explosively even in the absence of air
H231:	May react explosively even in the absence of air at elevated pressure and/or temperature
H232:	May ignite spontaneously if exposed to air
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 gas
H270:	May cause or intensify fire; oxidizer
H271:	May cause fire or explosion; strong oxidizer
H272:	May intensify fire; oxidizer
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

Hazard statement codes for health hazards

H300:	Fatal if swallowed
H301:	Toxic if swallowed
H302:	Harmful if swallowed
H303:	May be harmful if swallowed
H304:	May be fatal if swallowed and enters airways
H305:	May be harmful if swallowed and enters airways
H310:	Fatal in contact with skin
H311:	Toxic in contact with skin
H312:	Harmful in contact with skin
H313:	May be harmful in contact with skin
H314:	Causes severe skin burns and eye damage
H315:	Causes skin irritation
H316:	Causes mild skin irritation
H317:	May cause an allergic skin reaction
H318:	Causes serious eye damage
H319:	Causes serious eye irritation
H320:	Causes eye irritation
H330:	Fatal if inhaled
H331:	Toxic if inhaled
H332:	Harmful if inhaled
H333:	May be 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:	May cause 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 (state all organs effected,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 (state all organs effected,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)
H300+H310:	Fatal if swallowed or in contact with skin
H300+H330:	Fatal if swallowed or if inhaled
H310+H330:	Fatal in contact with skin or if inhaled
H300+H310+H330:	Fatal if swallowed, in contact with skin or if inhaled
H310+H311:	Toxic if swallowed or in contact with skin
H301+H331:	Toxic if swallowed or if inhaled
H311+H331:	Toxic in contact with skin or if inhaled
H301+H311+H331:	Toxic if swallowed, in contact with skin or if inhaled
H302+H312:	Harmful if swallowed or in contact with skin
H302+H332:	Harmful if swallowed or if inhaled
H312+H332:	Harmful in contact with skin or if inhaled
H302+H312+H332:	Harmful if swallowed, in contact with skin or if inhaled
H303+H313:	May be harmful if swallowed or in contact with skin
H303+H333:	May be harmful if swallowed or if inhaled
H313+H333:	May be harmful in contact with skin or if inhaled
H303+H313+H333:	May be harmful if swallowed, in contact with skin or if inhaled
H315+H320:	Causes skin and eye irritation

Hazard statement codes or environmental hazards

H400:	Very toxic to aquatic life
H401:	Toxic to aquatic life
H402:	Harmful 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
H420:	Harms public health and the environment by destroying ozone in the upper atmosphere

Codification of general precautionary 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

Codification of prevention precautionary statements

P201:	Obtain special instructions before use
P202:	Do not handle until all safety precautions have been read and understood
P210:	Keep away from heat,hot surfaces,sparks, open flames and other ignition sources. No smoking.
P211:	Do not spray on an open flame or other ignition source
P212:	Avoid heating under confinement or reduction of the desensitized agent
P220:	Keep away from clothing and other combustible materials
P222:	Do not allow contact with air
P223:	Do not allow contact with water
P230:	Keep wetted with for substances and mixtures which are wetted, diluted, dissolved or suspended with a plegmatizer in order to suppress their explosive properties. Manufacturer/ supplier or the competent authority to specify appropriate material
P231:	Handle and store contents under inert gas. Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if I"nert gas"is not appropriate
P233:	Keep container tightly closed
P234:	Keep only in original packaging
P235:	Keep cool
P240:	Ground and bond container and receiving equipment
P241:	Use explosion-proof
P242:	Use non-sparking tools
P243:	Take action to prevent static discharges
P244:	Keep valves and fittings free from oil and grease
P250:	Do not subject to grinding/shock/friction if the explosive is mechanically sensitive. Manufacturer/supplier or the competent authority to specify applicable rough handing.
P251:	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 and 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
P282:	Wear cold insulating gloves and either face shield or eye protection
P283:	Wear fire resistant or flame retardant clothing
P284:	[In case of inadequate ventilation] wear respiratory protection
P231+P232:	Handle and store contents under inert gas/… Protect from moisture

Codification of response precautionary statementsstatements

P310:	Immediately call a POISON CENTER/doctor. Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
P311:	Call a POISON CENTER/doctor. Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
P312:	Call a POISON CENTER/doctor/… / 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)
P330:	Rinse mouth
P331:	Do NOT induce vomiting
P334:	Immerse in cool water[or wrap in wet bandages]
P335:	Brush off loose particles from skin
P336:	Thaw frosted parts with lukewarm water. Do not rub affected areas
P338:	Remove contact lenses, if present and easy to do. continue rinsing
P340:	Remove person to fresh air and keep comfortable for breathing
P342:	If experiencing respiratory symptoms:
P351:	Rinse cautiously with water for several minutes
P352:	Wash with plenty of water. Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.
P353:	Rinse skin with water [or shower]
P360:	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes
P361:	Take off immediately all contaminated clothing
P362:	Take off contaminated clothing
P363:	Wash contaminated clothing before reuse
P364:	And wash it before reuse
P372:	Explosion risk
P373:	DO NOT fight fire when fire reaches explosives
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 … to extinguish
P380:	Evacuate area
P381:	In case of leakage, eliminate all ignition sources
P390:	Absorb spillage to prevent material - damage
P391:	Collect spillage
P301+P310:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/…
P301+P312:	IF SWALLOWED: Call a POISON CENTER / doctor/…/if you feel unwell
P302+P334:	IF ON SKIN: Immerse in cool water[or wrap in wet bandages]

P302+P352:	IF ON SKIN: Wash with plenty of water. Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.
P304+P312:	IF INHALED: Call a POISON CENTER /doctor/…/if you feel unwell
P304+P340:	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P306+P360:	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes
P308+P311:	IF exposed or concerned: Call a POSION CENTER/doctor. Manufacturer/supplier or the content competent authority to specify the appropriate source of emergency medical advice.
P308+P313:	IF exposed or concerned: Get medical advice/attention
P332+P313:	If skin irritation occurs: Get medical advice/attention
P333+P313:	If skin irritation or a rash occurs: Get medical advice/attention
P336+P315:	Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention
P337+P313:	If eye irritation persists: Get medical advice/attention
P342+P311:	If experiencing respiratory symptoms: Call a POISON CENTER /doctor. Manufacturer/supplier or the content competent authority to specify the appropriate source of emergency medical advice.
P361+P364:	Take off immediately all contaminated clothing and wash it before reuse
P362+P364:	Take off contaminated clothing and wash it before reuse
P370+P376:	In case of fire: Stop leak if safe to do so
P370+P378:	In case of fire: Use … for extinguish
P301+P330+P331:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+P335+P334:	IF ON SKIN: Brush if loose particles from skin. Immerse in cool water [or wrap in wet bandages]
P303+P361+P353:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
P305+P351+P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P370+P380+P375:	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion
P371+P380+P375:	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion
P370+P372+P380+P373:	In case of fire: Explosion risk Evacuate area. DO NOT fight fire when fire reaches explosives.
P370+P380+P375[+P378]:	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use…to extinguish]

Codification of storage precautionary statements

P401:	Store in accordance with Manufacturer/supplier or the competent authority to specify local/ regional/national/international regulations as applicable
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 a corrosive resistant/… container with a resistant inner liner
P407:	Maintain air gap between stacks or 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 separately.
P402+P404:	Store in a dry place. Store in a closed container
P403+P233:	Store in a well-ventilated place. Keep container tightly closed
P403+P235:	Store in a well-ventilated place. Keep cool
P410+P403:	Protect from sunlight. Store in a well-ventilated place
P410+P412:	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F

Codification of disposal precautionary statements

P501:	Dispose of contents/container to in accordance with local/regional/nationnal/international regulation (to be specified). Manufacture/suppiler or the competent authority to specify whether disposal requirements apply to contents, comtaineroe both.
P501(cont'd):	Dispose of contents/container to in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requorement apply to contents, container or both.
P502:	Refer to manufacturer or supplier for information on recovery or recycling

European Union Supplemental Hazard Information (EUH-Statements)

Physical properties

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
EUH044:	Risk of explosion if heated under confinement

Health properties

EUH029:	Contact with water liberates toxic gas
EUH031:	Contact with acids liberates toxic gas
EUH032:	Contact with acids liberates very toxic gas
EUH066:	Repeated exposure may cause skin dryness or cracking
EUH070:	Toxic by eye contact
EUH071:	Corrosive to the respiratory tract

Environmental properties

EUH059:	Hazardous to the ozone layer

Information on certain substances and mixturesstatements

EUH201:	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
EUH201A:	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.
EUH209A:	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.

Safety Information Risk and Safety Phrases

Risk Phrases (R)

R1:	Explosive when dry
R2:	Risk of explosion by shock, friction, fire or other sources of ignition
R3:	Extreme risk of explosion by shock, friction, fire or other sources of ignition
R4:	Forms very sensitive explosive metallic compounds
R5:	Heating may cause an explosion
R6:	Explosive with or without contact with air
R7:	May cause fire
R8:	Contact with combustible material may cause fire
R9:	Explosive when mixed with combustible material
R10:	Flammable
R11:	Highly flammable
R12:	Extremely flammable

R14:	Reacts violently with water
R15:	Contact with water liberates extremely flammable gases
R16:	Explosive when mixed with oxidizing substances
R17:	Spontaneously flammable in air
R18:	In use, may form flammable/explosive vapor-air mixture
R19:	May form explosive peroxides
R20:	Harmful by inhalation
R21:	Harmful in contact with skin
R22:	Harmful if swallowed
R23:	Toxic by inhalation
R24:	Toxic in contact with skin
R25:	Toxic if swallowed
R26:	Very toxic by inhalation
R27:	Very toxic in contact with skin
R28:	Very toxic if swallowed
R29:	Contact with water liberates toxic gas.
R30:	Can become highly flammable in use
R31:	Contact with acids liberates toxic gas
R32:	Contact with acids liberates very toxic gas
R33:	Danger of cumulative effects
R34:	Causes burns
R35:	Causes severe burns
R36:	Irritating to eyes
R37:	Irritating to respiratory system
R38:	Irritating to skin
R39:	Danger of very serious irreversible effects
R40:	Limited evidence of a carcinogenic effect
R41:	Risk of serious damage to eyes
R42:	May cause sensitization by inhalation
R43:	May cause sensitization by skin contact
R44:	Risk of explosion if heated under confinement
R45:	May cause cancer
R46:	May cause heritable genetic damage
R48:	Danger of serious damage to health by prolonged exposure
R49:	May cause cancer by inhalation
R50:	Very toxic to aquatic organisms
R51:	Toxic to aquatic organisms
R52:	Harmful to aquatic organisms
R53:	May cause long-term adverse effects in the aquatic environment
R54:	Toxic to flora
R55:	Toxic to fauna
R56:	Toxic to soil organisms
R57:	Toxic to bees
R58:	May cause long-term adverse effects in the environment
R59:	Dangerous for the ozone layer

R60:	May impair fertility
R61:	May cause harm to the unborn child
R62:	Possible risk of impaired fertility
R63:	Possible risk of harm to the unborn child
R64:	May cause harm to breast-fed babies
R65:	Harmful: may cause lung damage if swallowed
R66:	Repeated exposure may cause skin dryness or cracking
R67:	Vapours may cause drowsiness and dizziness
R68:	Possible risk of irreversible effects

Combination Risk Phrases (R)

R14/15:	Reacts violently with water, liberating extremely flammable gases
R15/29:	Contact with water liberates toxic, extremely flammable gases
R20/21:	Harmful by inhalation and in contact with skin
R20/22:	Harmful by inhalation and if swallowed
R20/21/22:	Harmful by inhalation, in contact with skin and if swallowed
R21/22:	Harmful in contact with skin and if swallowed
R23/24:	Toxic by inhalation and in contact with skin
R23/25:	Toxic by inhalation and if swallowed
R23/24/25:	Toxic by inhalation, in contact with skin and if swallowed
R24/25:	Toxic in contact with skin and if swallowed
R26/27:	Very toxic by inhalation and in contact with skin
R26/28:	Very toxic by inhalation and if swallowed
R26/27/28:	Very toxic by inhalation, in contact with skin and if swallowed
R27/28:	Very toxic in contact with skin and if swallowed
R36/37:	Irritating to eyes and respiratory system
R36/38:	Irritating to eyes and skin
R36/37/38:	Irritating to eyes, respiratory system and skin
R37/38:	Irritating to respiratory system and skin
R39/23:	Toxic: danger of very serious irreversible effects through inhalation
R39/24:	Toxic: danger of very serious irreversible effects in contact with skin
R39/25:	Toxic: danger of very serious irreversible effects if swallowed
R39/23/24:	Toxic: danger of very serious irreversible effects through inhalation and in contact with skin
R39/23/25:	Toxic: danger of very serious irreversible effects through inhalation and if swallowed
R39/24/25:	Toxic: danger of very serious irreversible effects in contact with skin and if swallowed
R39/23/24/25:	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
R39/26:	Very Toxic: danger of very serious irreversible effects through inhalation
R39/27:	Very Toxic: danger of very serious irreversible effects in contact with skin
R39/28:	Very Toxic: danger of very serious irreversible effects if swallowed
R39/26/27:	Very Toxic: danger of very serious irreversible effects through inhalation and in contact with skin
R39/26/28:	Very Toxic: danger of very serious irreversible effects through inhalation and if swallowed
R39/27/28:	Very Toxic: danger of very serious irreversible effects in contact with skin and if swallowed

R39/26/27/28:	Very Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
R42/43:	May cause sensitization by inhalation and skin contact
R48/20:	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R48/21:	Harmful: danger of serious damage to health by prolonged exposure in contact with skin
R48/22:	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R48/20/21:	Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin
R48/20/22:	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed
R48/21/22:	Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed
R48/20/21/22:	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
R48/23:	Toxic: danger of serious damage to health by prolonged exposure through inhalation
R48/24:	Toxic: danger of serious damage to health by prolonged exposure in contact with skin
R48/25:	Toxic: danger of serious damage to health by prolonged exposure if swallowed
R48/23/24:	Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin
R48/23/25:	Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed
R48/24/25:	Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed
R48/23/24/25:	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
R50/53:	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R68/20:	Harmful: possible risk of irreversible effects through inhalation
R68/21:	Harmful: possible risk of irreversible effects in contact with skin
R68/22:	Harmful: possible risk of irreversible effects if swallowed
R68/20/21:	Harmful: possible risk of irreversible effects through inhalation and in contact with skin
R68/20/22:	Harmful: possible risk of irreversible effects through inhalation and if swallowed
R68/21/22:	Harmful: possible risk of irreversible effects in contact with skin and if swallowed
R68/20/21/22:	Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed

Safety Phrases (S)

S1:	Keep locked up
S2:	Keep out of the reach of children
S3:	Keep in a cool place
S4:	Keep away from living quarters under… (appropriate liquid to be specified by the manufacturer)
S5:	Keep contents under … (appropriate liquid to be specified by the manufacturer)
S6:	Keep under … (inert gas to be specified by the manufacturer)

S7:	Keep container tightly closed
S8:	Keep container dry
S9:	Keep container in a well-ventilated place
S12:	Do not keep the container sealed
S13:	Keep away from food, drink and animal feeding stuffs
S14:	Keep away from … (incompatible materials to be indicated by the manufacturer)
S15:	Keep away from heat
S16:	Keep away from sources of ignition - No smoking
S17:	Keep away from combustible material
S18:	Handle and open container with care
S20:	When using do not eat or drink
S21:	When using do not smoke
S22:	Do not breathe dust
S23:	Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer)
S24:	Avoid contact with skin
S25:	Avoid contact with eyes
S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S27:	Take off immediately all contaminated clothing
S28:	After contact with skin, wash immediately with plenty of … (to be specified by the manufacturer)
S29:	Do not empty into drains
S30:	Never add water to this product
S33:	Take precautionary measures against static discharges
S34:	Avoid shock and friction
S35:	This material and its container must be disposed of in a safe way
S36:	Wear suitable protective clothing
S37:	Wear suitable gloves
S38:	In case of insufficient ventilation, wear suitable respiratory equipment
S39:	Wear eye/face protection
S40:	To clean the floor and all objects contaminated by this material use … (to be specified by the manufacturer)
S41:	In case of fire and/or explosion do not breathe fumes
S42:	During fumigation/spraying wear suitable respiratory equipment (appropriate wording to be specified by the manufacturer)
S43:	In case of fire use … (indicate in the space the precise type of fire-fighting equipment. If water increases the risk add – “Never use water”)
S45:	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)
S46:	If swallowed, seek medical advice immediately and show this container or label
S47:	Keep at temperature not exceeding … °C (to be specified by the manufacturer)
S48:	Keep wet with … (appropriate material to be specified by the manufacturer)
S49:	Keep only in the original container
S50:	Do not mix with … (to be specified by the manufacturer)
S51:	Use only in well-ventilated areas

S52:	Not recommended for interior use on large surface areas
S53:	Avoid exposure - obtain special instructions before use
S55:	Treat using the best available techniques before discharge into drains or the aquatic environment
S56:	Dispose of this material and its container at hazardous or special waste collection point
S57:	Use appropriate container to avoid environmental contamination
S59:	Refer to manufacturer/supplier for information on recovery/recycling
S60:	This material and its container must be disposed of as hazardous waste
S61:	Avoid release to the environment. Refer to special instructions/safety data sheet
S62:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label
S63:	In case of accident by inhalation: remove casualty to fresh air and keep at rest
S64:	If swallowed, rinse mouth with water (only if the person is conscious)

Combination Safety Phrases (S)

S1/2:	Keep locked up and out of the reach of children
S3/7:	Keep container tightly closed in a cool place
S3/7/9:	Keep container tightly closed in a cool, well-ventilated place
S3/9/14:	Keep in a cool, well-ventilated place away from … (incompatible materials to be indicated by the manufacturer)
S3/9/14/49:	Keep only in the original container in a cool, well-ventilated place away from … (incompatible materials to be indicated by the manufacturer)
S3/9/49:	Keep only in the original container in a cool, well-ventilated place
S3/14:	Keep in a cool place away from … (incompatible materials to be indicated by the manufacturer)
S7/8:	Keep container tightly closed and dry
S7/9:	Keep container tightly closed and in a well-ventilated place
S7/47:	Keep container tightly closed and at temperature not exceeding … °C (to be specified by the manufacturer)
S20/21:	When using do not eat, drink or smoke
S24/25:	Avoid contact with skin and eyes
S27/28:	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of … (to be specified by the manufacturer)
S29/35:	Do not empty into drains; dispose of this material and its container in a safe way
S29/56:	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
S36/37:	Wear suitable protective clothing and gloves
S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection
S36/39:	Wear suitable protective clothing and eye/face protection
S37/39:	Wear suitable gloves and eye/face protection
S47/49:	Keep only in the original container at temperature not exceeding … °C (to be specified by the manufacturer

Source: United Nations, 2015, http://www.unece.org/trans/danger/publi/ghs/ghs_rev06/06files_e.html

CONVERSION FACTORS

Below are instructions for converting factors, include changing acres to hectares, Btu/hour to horsepower, centimeters to inches, degrees to radian, feet to miles, furlongs to feet, liters to gallons

To change	To	Multiply by
acres	hectares	0.4047
acres	square feet	43,560
acres	square miles	0.001562
atmospheres	cms. of mercucy	76
Btu/hour	horsepower	0.000393
Btu	kilowatt-hour	0.0002931
Btu/hour	watts	0.2931
bushels	cubic inches	2150.4
bushels (U.S)	hectoliters	0.3524
centimeters	inches	0.3937
centimeters	feet	0.03281
cubic feet	cubic meter	0.0283
cubic meters	cubic feet	35.3145
cubic meters	cubic yards	1.3079
cubic yards	cubic meters	0.7646
degrees	radians	0.01745
dynes	grams	0.00102
fathoms	feet	6
feet	meters	0.3048
feet	miles(nautical)	0.0001645
feet	miles(statute)	0.0001894
feet/second	mile/hour	0.6818
furlongs	feet	660
furlongs	miles	0.125
gallons (U.S.)	liters	3.7853
grains	grams	0.0648
grams	grains	15.4324
grams	ounces (avdp)	0.0353
grams	pounds	0.002205
hectares	acres	2.471
hectoliters	bushels (U.S.)	2.8378
horsepower	watts	745.7
horsepower	Btu/hour	2.547
hours	days	0.04167

inches	millimeters	25.4
inches	centimeters	2.54
kilograms	ponds (avdp or troy)	2.2046
kilometers	miles	0.6214
kilowatt-hour	Btu	3412
knots	nautical miles/hour	1
knots	statute miles/hour	1.151
liters	gallons (U.S.)	0.2642
liters	pecks	0.1135
liters	pints (dry)	1.8162
liters	pints (liquid)	2.1134
liters	quarts (dry)	0.9081
liters	quarts (liquid)	1.0567
meters	feet	3.2808
meters	miles	0.0006214
meters	yards	1.0936
metric tons	tons (long)	0.9842
metric tons	tons (short)	1.1023
miles	kilometers	1.6093
miles	feet	5280
miles (nautical)	miles (statute)	1.1516
mile (statute)	miles (nautical)	0.8684
mile/hour	feet/minute	88
millimeters	inches	0.0394
ounces (avdp)	grams	28.3495
ounces	pounds	0.0625
ounces (troy)	ounces (avdp)	1.09714
pecks	liters	8.8096
pints (dry)	liters	0.5506
pints (liquid)	liters	0.4732
pounds (ap or troy)	kilograms	0.3732
pounds (avdp)	kilograms	0.4536
pounds	ounces	16
quarts (dry)	liters	1.1012
quarts (liquid)	liters	0.9463
radians	degrees	57.3
rods	meters	5.029
rods	feet	16.5
square feet	square meters	0.0929
square kilometers	square miles	0.3861
square meters	square feet	10.7639
square meters	square yards	1.196
square miles	square kilometers	2.59

square yards	square meters	0.8361
tons (long)	metric tons	1.016
tons (short)	metric tons	0.9072
tons (long)	pounds	2240
tons (short)	pounds	2000
watts	Btu/hour	3.4121
watts	horsepower	0.001341
yards	meters	0.9144
yards	miles	0.0005682

NOTE: avdp = avoirdupois weight, ap = apothecaries' weight.

FRACTIONS

Symbol	Prefix	Factor			
E	exa	1 000 000 000 000 000 000	=	10^{18}	quintillion
P	peta	1 000 000 000 000 000	=	10^{15}	quadrillion
T	tera	1 000 000 000 000	=	10^{12}	trillion
G	giga	1 000 000 000	=	10^{9}	billion
M	mega	1 000 000	=	10^{6}	million
k	kilo	1 000	=	10^{3}	thousand
h	hecto	100	=	10^{2}	hundred
da	deca	10	=	10^{1}	ten
d	deci	0.1	=	10^{-1}	tenth
c	centi	0.01	=	10^{-2}	hundredredth
m	milli	0.001	=	10^{-3}	thousandth
μ	micro	0.000 001	=	10^{-6}	millionth
n	nano	0.000 000 001	=	10^{-9}	billionth
p	pico	0.000 000 000 001	=	10^{-12}	trillionth
f	femto	0.000 000 000 000 001	=	10^{-15}	quadrillionth
a	atto	0.000 000 000 000 000 001	=	10^{-18}	quintillionth

NOTE: 109 = 1 billion is United Nations usage in English by analogy, so is 10^{-9} = 1billionth

UNITS OF MEASURE CONVERSION FACTORS

Percent	Parts per Million	Parts per Billion	Parts per Trillion
.001%	10 ppm	-	-
.0001%	1 ppm	1,000 ppb	1,000,000 ppt
.00001%	.1 ppm	100 ppb	100,000 ppt
.0000001%	.01 ppm	10 ppb	10,000 ppt
-	.001 ppm	1 ppb	1,000 ppt
-	.00001 ppm	.01 ppb	10 ppt
-	.000001 ppm	.001 ppb	1 ppt

VOLUME CONVERSION TABLE (METRIC AND U.S. LIQUID MEASURES)

From	To in^3	To ft^3	To yd^3	To fl pt	To fl oz	To fl qt	To gal	To liter	To m^3	To cm^3
cm^3	0.06102	$3.53x10^{-5}$	$1.31x10^{-6}$	0.00211	0.03381	0.0016	$2.64x10^{-4}$	0.001	$1x10^{-6}$	1
liter	61.02	0.03532	0.00131	2.113	33.81	1.057	0.2642	1	0.001	1000
m^3	$6.10x10^{4}$	35.31	1.308	2113	$3.38x10^{4}$	1057	264.2	1000	1	$1x10^{6}$
in	1	$5.79x10^{-4}$	$2.14x10^{-5}$	0.03463	0.5541	0.01732	0.00433	0.01639	$1.64x10^{-5}$	16.39
ft	1728	1	0.03704	69.84	957.5	29.92	7.481	28.32	0.02832	$2.83x10^{4}$
yd^3	$4.67x10^{4}$	27	1	1616	$2.59x10^{4}$	807.9	202	764.5	0.7645	$7.65x10^{5}$
fl oz	1.805	0.0010^{4}	$3.87x10^{-5}$	0.0625	1	0.03125	0.00781	0.02957	$2.96x10^{-5}$	29.57
fl pt	28.88	0.01671	$619x10^{-4}$	1	16	0.6	0.125	0.4732	$473x10^{-4}$	473.2
fl qt	57.75	0.03342	0.00124	2	32	1	0.25	0.9463	$9.46x10^{-4}$	946.4
gal	231	0.1337	0.00495	8	128	4	1	3.786	0.00379	3785

LENGTH CONVERSION TABLE

From	To in	To ft	To mile	To m	To km	To cm
cm	0.3937	0.03281	$6.214x10^{-6}$	0.01	$1x10^{-5}$	1
m	39.37	3.281	$6.214x10^{-4}$	1	0.001	100
km	$3.94x10^{4}$	3281	0.6214	1000	1	$1x10^{5}$
in	1	0.08333	$1.578x10^{-5}$	0.0254	$2.540x10^{-5}$	2.54
ft	12	1	$18.94x10^{-4}$	0.3048	$3.048x10^{-4}$	30.48
mile	$6.336x10^{4}$	5280	1	1609	1.609	$1.609x10^{5}$

WEIGHT CONVERSION TABLE

From	To grain	To lb	To metric ton	To oz	To kg	To g
g	15.43	0.0022	$1x10^{-6}$	0.03527	0.001	1
kg	$1.54x10^{4}$	2.205	0.001	35.27	1	1000
metric ton	$1.54x10^{7}$	2205	1	$3.53x10^{4}$	1000	$1x10^{6}$
grain	1	$1.43x10^{-4}$	$6.48x10^{-5}$	$2.29x10^{-3}$	$6.48x10^{-5}$	$6.48x10^{-2}$
oz	437.5	0.0625	$2.83x10^{-5}$	1	0.02835	28.35
ib	7000	1	$4.54x10^{4}$	16	0.4536	453.6

Remark: To convert from a unit shown in the left column, multiply by the factor listed in the column for the desired unit

TEMPERATURE CONVERSION FORMULAS

From	To Fahrenheit	To Celsius	To Kelvin
Fahrenheit (F)	F	(F-32)*5/9	(F-32)*5/9 + 273.15
Celsius (C or °)	(C*9/5) + 32	C	C + 23.15
Kelvin (K)	(K-273.15)*9/5 + 32	K - 273.15	K

ATOMIC WEIGHTS OF THE ELEMENTS

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
1	H	Hydrogen	1.008	3,6
2	HE	Helium	4.002602(2)	1,2
3	Li	Lithium	6.94	1,2
4	Be	Beryllium	9.012182(3)	
5	B	Boron	10.81	3,6
6	C	Carbon	12.011	6
7	N	Nitrogen	14.007	6
8	O	Oxygen	15.999	6
9	F	Fluorine	18.9984032(5)	
10	Ne	Neon	20.1797(6)	1,3
11	Na	Sodium	22.98976928(2)	
12	Mg	Magnesium	24.3050(6)	
13	Al	Aluminium	26.9815386(8)	
14	Si	Silicon	28.085	6
15	P	Phosphorus	30.973762(2)	
16	Si	Sulfur	32.06	6
17	Cl	chlorine	35.45	3.6
18	Ar	Argon	39.948(1)	1,2
19	K	Potassium	39.0983(1)	
20	Ca	Calcium	40.078(4)	
21	Sc	Scandium	44.955912(6)	
22	Ti	Titanium	47.867(1)	
23	V	Vanadium	50.9415(1)	
24	Cr	Chromium	51.9961(6)	
25	Mn	Manganese	54.938045(5)	
26	Fe	Iron	55.845(2)	
27	Co	Cobalt	58.933195(5)	
28	Ni	Nickel	58.6934(4)	2
29	Cu	Copper	63.546(3)	2

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
89	Ac	Actinium	[227]	4
13	Al	Aluminium	26.9815386(8)	
95	Am	Americium	[243]	4
51	Sb	Antimony	121.760(1)	1
18	Ar	Argon	39.948(1)	1,2
33	As	Arsenic	74.92160(2(	
85	At	Astatine	[210]	4
56	Ba	Barium	137.327(7)	
97	Bk	Berkelium	[247]	4
4	Be	Berylium	9.012182(3)	
83	Bi	Bismuth	208.98040(1)	
107	Bh	Bohrium	[272]	4
5	B	Boron	10.81	3,6
35	Br	Bromine	79.904(1)	
48	Cd	Cadmium	112.411(8)	
55	Cs	Caesium	132.9054519(2)	
20	Ca	Calcium	40.078(4)	1
98	Cf	Californium	[251]	4
6	C	Carbon	12.011	6
58	Ce	Cerium	140.116(1)	1
17	Cl	Chlorine	35.45	3,6
24	Cr	Chromium	51.9961(6)	
27	Co	Cobalt	58.933195(5)	
112	Cn	Coppermicium	[285]	4
29	Cu	Coppermicium	63.546(3)	2
96	Cm	Curium	[247]	4
110	Ds	Darmstadtium	[281]	4
105	Cb	Dubnium	[268]	4
66	Dy	Dysprosium	162.500(1)	1

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
30	Zn	Zinc	65.38(2)	2
31	Ga	Gallium	69.723(1)	
32	Ge	Germanium	72.64(1)	
33	As	Arsenic	74.92160(2)	
34	Se	Selenium	78.96(3)	
35	Br	Bromine	79.904(1)	
36	Kr	Krypton	83.798(2)	1.3
37	Rb	Rubidium	85.4678(3)	1
38	Sr	Strontium	87.62(1)	1,2
39	Y	Yttrium	88.90585(2)	
40	Zr	Zirconium	91.224(2)	1
41	Nb	Niobium	92.90638(2)	
42	Mo	Molybdenum	95.96(2)	1
43	Tc	Technetium	[98]	4
44	Ru	Ruthenium	101.07(2)	1
45	Rh	Rhodium	102.90550(2)	
46	Pd	Palladium	106.42(1)	1
47	Ag	Silver	107.8682(2)	1
48	Cd	Cadmium	112.411(8)	1
49	In	Indium	114.818(3)	
50	Sn	Tin	118.710(7)	1
51	Sb	Antimony	121.760(1)	1
52	Te	Tellurium	127.60(3)	1
53	In	Iodine	126.90447(3)	
54	Xe	Xenon	131.293(6)	1,3
55	Cs	Caesium	132.9054519(2)	
56	Ba	Barium	137.327(7)	
57	La	Lanthanum	138.90547(7)	1
58	Ce	Cerium	140.116(1)	1
59	Pr	Praseodymium	140.90765(2)	
60	Nd	Neodymium	144.242(3)	1
61	Pm	Promethium	[145]	5
62	Sm	Samarium	150.36(2)	1

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
99	Es	Einsteinium	[252]	4
68	Er	Erbium	167.259(3)	1
63	Eu	Europium	151.964(1)1	1
100	Fm	Fermium	[257]	4
114	Fl	Flerovium	[289]	4,5
9	F	Flurine	18.9984032(5)	
87	Fr	Francium	[223]	4
64	Gd	Gadolinium	157.25(3)	1
31	Ga	Gallium	69.723(1)	
32	Ge	Germanium	72.64(1)	
79	Au	Gold	196.966569(4)	
72	Hf	Hafnium	178.49(2)	
108	Hs	Hassium	[277]	4
2	He	Helium	4.002602(2)	1,2
67	Ho	Holmium	164.93032(2)	
1	H	Hydrogen	1.008	3,6
49	In	Indium	114.818(3)	
53	I	Iodine	126.90447(3)	
77	Ir	Iridium	192.217(3)	
26	Fe	Iron	55.845(3)	
36	Kr	Krypton	83.798(2)	1,3
57	La	Lanthanum	138.90547(7)	1
103	Lr	Lawrencium	[262]	4
82	Pb	Lead	207.2(1)	1,2
3	Li	Lithium	6.94	3,6
116	Lv	Livermorium	[293]	4,5
71	Lu	Lutetium	174.9668(1)	1
12	Mg	Magnesium	24.3050(6)	
25	Mn	Manganese	54.938045(5)	
109	Mt	Meitnerium	[276]	4
101	Md	Mendelevium	[258]	4
80	Hg	Mercury	200.59(2)	
42	Mo	Molybdenum	95.96(2)	1

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
63	Eu	Europium	151.964(1)	1
64	Gd	Gadolinium	157.25(3)	1
65	Tb	Terbium	158.92535(2)	
66	Dy	Dysprosium	162.500(1)	1
67	Ho	Holmium	164.93032(2)	
68	Er	Erbium	167.259(3)	1
69	Tm	Thulium	168.93421(2)	
70	Yb	Ytterbium	173.054(5)	1
71	Lu	Lutetium	174.9668(1)	1
72	Hf	Hafnium	178.49(2)	
73	Ta	Tantalum	180.94788(2)	
74	W	Tungsten	183.84(1)	
75	Re	Rhenium	186.207(1)	
76	Os	Osmium	190.23(3)	1
77	Ir	Iridium	192.217(3)	
78	Pt	Platnium	195.084(9)	
79	Au	Gold	196.966569(4)	
80	Hg	Mercury	200.59(2)	
81	Ti	Thallium	204.38	6
82	Pb	Lead	207.2(1)	1,2
83	Bi	Bismuth	208.9804(1)	
84	Po	Polonium	[209]	4
85	At	Astatine	[210]	4
86	Rn	Radon	[222]	4
87	Fr	Francium	[223]	4
88	Ra	Radium	[226]	4
89	Ac	Actinium	[227]	4
90	Th	Thorium	232.03806(2)	1,4
91	Pa	Protactinium	231.0.3588(2)	4
92	U	Uranium	237.02891(3)	1,3,4
93	Np	Neptunium	[237]	4

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
60	Nd	Neodymium	144.242(3)	1
10	Ne	Neon	20.1767(6)	1,3
93	Np	Neptunium	[237]	4
28	Ni	Nickel	58.6934(4)	
41	Nb	Niobium	92.90637(2)	
7	N	Nitrogen	14.007	6
102	No	Nobelium	[259]	4
76	Os	Osmium	190.23(3)	1
8	O	Oxygen	15.999	6
46	Pd	Palladium	106.42(1)	1
15	P	Phosphorus	30.973762(2)	
78	Pt	Platinium	195.084(9)	
94	Pu	Plutonium	[244]	4
84	Po	Polonium	[209]	4
19	K	Potassium	39.0983(1)	1
59	Pr	Praseodymium	140.90765(2)	
61	Pm	Promethium	[145]	4
91	Pa	Protactinium	231.03588(2)	4
88	Ra	Radium	[226]	4
86	Rn	Radon	[222]	4
75	Re	Rhenium	186.207(1)	
45	Rh	Rhodium	102.9055(2)	
111	Rg	Roentgenium	[280]	4
37	Rb	Rubidium	85.4678(3)	1
44	Ru	Rutheniu	101.07(2)	1
104	Rf	Rutherfordium	[265]	4
62	Sm	Samarium	150.36(2)	1
21	Sc	Scandium	44.955912(6)	
106	Sg	Seaborgium	[271]	4
34	Se	Selenium	78.96(3)	
14	Si	Silicon	28.085	6

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
94	Pu	Plutonium	[244]	4
95	Am	Americium	[243]	4
96	Cm	Curium	[247]	4
97	Bk	Berkelium	[247]	4
98	Cf	Californium	[251]	4
99	Es	Einsteinium	[252]	4
100	Fm	Fermium	[25]	4
101	Md	Mendelevium	[258]	4
102	No	Nobelium	[259]	4
103	Lr	Lawrencium	[262]	4
104	Rf	Rutherfodium	[265]	4
105	Db	Dubnium	[268]	4
106	Sg	Seaborgium	[271]	4
107	Bh	Bohrium	[270]	4
108	Hs	Hassium	[277]	4
109	Mt	Meitnerium	[276]	4
110	Ds	Darmstadtium	[281]	4
111	Rg	Roentgenium	[280]	4
112	Cn	Copernicium	[285]	4
113	Uut	Ununtrium	[284]	4,5
114	Fl	Flerovium	[289]	4,5
115	Uup	Ununpentium	[288]	4,5
116	Lv	Livermorium	[293]	4,5
117	Uus	Ununseptium	[294	4,5
118	Uuo	Ununoctium	[294]	4,5

List of Element in Atomic Number Order				
At NO	Symbol	Name	Atomic WT	Notes
47	Ag	Silver	107.8682(2)	1
1	Na	Sodium	22.98976928(2)	
38	Sr	Strontium	87.62(1)	1,2
16	Sr	Sulfur	32.06	6
73	Ta	Tantalum	180.94788(2)	
43	Tc	Technetium	[98]	4
52	Te	Tellurium	127.60(3)	1
65	Tb	Terbium	158.92535(2)	
81	Tl	Thallium	204.38	6
90	Th	Thorium	232.03806(2)	1,4
69	Tm	Thulium	168.93421(2)	
50	Sn	Tin	118.710(7)	
22	Ti	Titanium	47.867(1)	
74	W	Tungsten	183.84(1)	
118	Uun	Ununoctium	[294]	4,5
115	Uup	Ununpentium	[288]	4,5
117	Uus	Ununseptium	[294]	4,5
113	Uut	Ununtrium	[284]	4,5
92	U	Uranium	238.02891(3)	1,3,4
23	V	Vanadium	50.9415(1)	
54	Xe	Xenon	131.293(6)	1,3
70	Yb	Ytterbium	173.054(5)	1
39	Y	Yttrium	88.90585(2)	
30	Zn	Zinc	65.38(2)	2
40	Zr	Zirconium	91.224(2)	1

1. Geological specimens are known in which the element has an isotopic composition outside the limits for normal material. The difference between the atomic weight of the element is such specimens and that given in the Table may exceed the stated uncertainty
2. Range in isotopic composition of normal terrestral material prevents a more precise value being given; the tabulated value should be applicable to any normal material
3. Modified isotopic compositions may be found in commercially available material because it has been subject to an undisclosed or inadvertant isotopic fractionation. Substantial deviation in atomic weight of the element from that given in the Table can occur.
4. Element has no stable nuclides. The value enclosed in brackets, e.g. [209], indicates the mass number of the longest-lived isotope of the element. However three such element (Th, Pa and U) do have a characteristic terrestrial isotopic composition, and for these an atomic weight is tabulated.
5. The names and symbols for element 113-118 are under review. The temporary system recommended by J chatt, Pure Appl. Chem ., 51 , 381-384(1979) is used above.
6. See below table for details of range and original paper for the atomic weight of the element from different sources.

List of Element with Range of Atomic Weights				
At No	Symbol	Name	Minimum Atomic Wt	Maximum Atomic Wt
1	H	Hydrogen	1.007 84	1.008 11
3	Li	Lithium	6.938	6.997
5	B	Boron	10.806	10.821
6	C	Carbon	12.0096	12.0116
7	N	Nitrogen	14.006 43	14.007 28
8	O	Oxygen	15.99 03	15.999 77
14	Si	Silicon	28.084	28.086
16	S	Sulfur	32.059	32.076
17	Cl	Chlorine	35.446	35.457
81	Tl	Thallium	204.382	204.385

Source: INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY http://www.chem.qmul.ac.uk/iupac/

Remark: RCI Labscan Limited believes all information contained within this catalogue is reliable and accurate. RCI Labscan makes no warranty express or implied, with respect thereto and expressly disclaims all liability for any reliance thereon.

SYNONYM

Product name	synonym
1, 2-DICHLOROETHANE	1, 2-Bichloroethane, Dichloro-1, 2-ethane, Ethane dichloride, Ethylene chloride, Ethylene dichloride, 1, 2-Ethylene dichloride, Glycol dichloride
1, 4-DIOXAN	1, 4-Dioxane, Glycolethylether, 1, 4-Diethylene dioxide, 1, 4-Dioxacyclohexane, Diethylene dioxide, Diethylene dioxide, Di(ethylene oxide), Dioxan, Dioxane, Dioxane-1, 4, Dioxan-1, 4, p-Dioxan, Tetrahydro-p-dioxin, Tetrahydro-1, 4-dioxin, Dioxyethylene ether, Glycol ethylene ether, Diethylene ether
1-CHLOROBUTANE	Butyl chloride, n-Butyl chloride, 1-Butyl chloride, n-Propylcarbinyl chloride
2, 2, 4-TRIMETHYLPENTANE	iso-Octane, Isooctane, Isobutyltrimethylpentane
2-METHYLBUTANE	Ethyldimethylmethane, Isoamylhydride, Isopentane, iso-Pentane,
ACETIC ACID	Acetic acid, Ethanoic acid, Ethylic acid, Methane carboxylic acid, Vinegar acid
ACETONE	2-Propanone,Dimethyl Ketone, keto-propane,pyroacetic ether
ACETONITRILE	Methyl Cyanide, cyanomethane, ethanenitrile
AMMONIUM CHLORIDE	Salt ammoniac
AMMONIUM FERROUS(II) SULFATE HEXAHYDRATE	Ammonium ferrous sulfate, Ferrous ammonium sulfate, Mohr's salt, Iron(II) ammonium sulfate, Ammonium iron(II) sulfate
AMMONIUM MOLYBDATE TETRAHYDRATE	Ammonium heptamolybdate tetrahydrate, Hexammonium heptamolybdate 4-hydrate.
AMMONIUM PERSULPHATE	Ammonium peroxidisulphate, Peroxidisulfuric acid diammonium salt
AMMONIUM SULFATE	Ammonium sulphate, Diammonium sulfate, Diammonium sulphate, Sulfuric acid diammonium salt
ASCORBIC ACID	
BORAX	Boraxdecahydrate, Sodium tetraborate decahydrate, di-Sodium tetraborate decahydrate, Sodium boratedecahydrate
BORIC ACID	Orthoboric acid
BROMOCRESOL GREEN	3, 3', 5, 5'-Tetrabromo-m-cresolsulfonphthalein, BCG
BUTAN-1-OL	n-Butanol, 1-Butanol, Butanol, n-Butan-1-ol, n-Butyl alcohol, 1-Butyl alcohol
CALCIUM HYDROXIDE	Calcium dihydroxide, Calcium hydrate, Hydrated lime, Milk of lime, Slaked Lime
CHLOROBENZENE	Benzene chloride, Monochlorobenzene, phenyl chloride
CHLOROFORM	Formyl trichloride, Methane trichloride, Methenyl trichloride
CYCLOHEXANE	Hexahydrobenzene, Hexamethylene, Naphthene
CYCLOHEXANONE	Pimelic ketone, Cyclohexyl ketone, Ketohexamethylene.
CYCLOPENTANE	Pentamethylene
DICHLOROMETHANE	Methanedichloride, Methylene bichloride, Methylene chloride, Methylene dichloride
DIETHYL ETHER	Ethyl ether, Ethyl oxide, Ether, Ethoxyethane
DIETHYLAMINE	Diethamine, N,N-Diethylamine, N-ethylethanamine
DIMETHYLACETAMIDE	Acetic acid dimethylamide, N, N-Dimethylacetamide, Dimethylacetone amide, Dimethylamide acetate

Product name	synonym
DIMETHYLFORMAMIDE	Formic acid dimethylamide, N, N-Dimethylformamide, N,N-Dimethylmethanamide, N-Formyldimethylamine, DMF
DIMETHYLSULPHOXIDE	Dimetylsulfoxide, sulfinylbis-Methane, Methylsulfinylmethane, DMSO
di-SODIUM HYDROGEN PHOSPHATE	Sodium monohydrogen phosphate, Disodium hydrogen phosphate, Sodium phosphate dibasic
ERIOCHROME BLACK T	Chrome black T, 2-Hydroxy-1-(1-hydroxy-2-naphthylazo)-6-nitronaphthalene -4-sulfonic acid sodium salt, EBT
ETHANOL	N, N-diethyl-N-[2-(2,6-dimethylphenylamino)-2-oxoethyl]-Benzylammonium benzoate
ETHYL ACETATE	Acetic acid ethyl ester, acetic ether, vinegar naphtha.
ETHYLENEDIAMINE TETRAACETIC ACID DISODIUM SALT	Disodium dihydrogen ethylenediaminetetraacetate dihydrate , EDTA Disodium salt dihydrate
FORMALDEHYDE	Formaline solution, Methanal solution, Methylaldehyde solution, Oxomethane, Oxymethylene, Methylene oxide, formic aldehyde
GLYCINE	Aminoacetic acid, Glycocoll, Soerensen's buffer substances
HYDROCHLORIC ACID	Chlorohydric acid, Hydrogen chloride, Muriatic acid, Spirits of salt
IODINE (RESUBLIMED)	Iodine
MAGNESIUM OXIDE	Calcined magnesite, Magnesia
MAGNESIUM SULFATE	Magnesium sulphate, magnesium sulphate heptahydrate, bitter salt, Epsom salt
METHANOL	Methyl alcohol, carbinol, wood alcohol
METHYL ETHYL KETONE	2-Butanone, Ethyl methyl ketone, Methyl acetone, MEK
METHYL ISOBUTYL KETONE	4-methylpentan-2-one,isobutyl methyl ketone
METHYL ORANGE	4-Dimethylaminoazobenzene-4
METHYL RED	2-(4 - Dimethylaminophenylazo) benzoic acid
METHYLCYCLOHEXANE	Cyclohexylmethane, Hexahydrotoluene, Toluene hexahydride, Hexahydrotoluene
METHYL-t-BUTYL ETHER	tert-Butyl methyl ether, 1, 1-Dimethylethyl methyl ether, 2-Me thoxy-2-methylpropane, Methyl-1,1-dimethylethyl ether, tert-Butoxymethane, 2-methoxy-2-methylpropane, MtBE, 2-Methyl butane-2-ol.
n-BUTYL ACETATE	Acetic acid n-butyl ester,Acetic acid butyl ester, Butyl acetate, 1- Butyl acetate
n-HEPTANE	1-Methyl hexane, n-Dipropylmethane, Heptyl hydride
NITRIC ACID	Nitrous fumes, Red fuming nitric acid.
n-METHYL-2-PYRROLIDONE	1-Methyl-2-pyrrolidone, nMP
n-NONANE	Nonane, 2-Isopropyl-4-methyl-6-hydropyrimidine
n-OCTANE	Octane
n-PENTANE	Amyl hydride, n- Amyl hydride, pentane, Diethyl methane, 1, 3-Dimethyl propane
ortho-PHOSPHORIC ACID	Phosphoric acid, White phosphoric acid, Sonac
PETROLEUM ETHER	Petroleum benzine, Petroleum spirit
PHENOLPHTHALEIN	3, 3-Bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone, 3,3-Bis (p-hydroxyphenyl)phthalide

Product name	synonym
POTASSIUM DIHYDROGEN ORTHOPHOSPHATE	Potassium dihydrogen phosphate, Potassium phosphate, mono-Potassium Phosphate, mono-Potassium ortho Phosphate, Potassium biphosphate, Potassium phosphate monobasic
POTASSIUM HYDROXIDE	Potash caustic
POTASSIUM SODIUM (+)	Sodium potassium tartrate, Tartaric acid potassium sodium salt, Potassium
TARTRATE TETRAHYDRATE	sodium tartrate tetrahydrate
PROPAN-1-OL	1-Propanol, n-Propyl alcohol, 1-Hydroxy propane, Ethyl carbinol, n-Propanol
PROPAN-2-OL	iso-Propanol, isopropyl alcohol, Dimethyl carbinol, 2-Propanol
SODIUM CHLORIDE	Common salt, Rock salt, Sea salt, White crystal
SODIUM HYDROGEN CARBONATE	Sodium bicarbonate
SODIUM HYDROXIDE	Sodium bicarbonate
SODIUM NITRATE	Chile saltpeter, Nitric acid sodium salt
SODIUM NITRITE	Diazotizing salts, Nitrous acid sodium salt
SODIUM SULFATE	Sodium Sulphate Anhydrous
SODIUM THIOSULFATE PENTAHYDRATE	Antichlor, Sodium thisulfate pentahydrate
STANNOUS(II) CHLORIDE DIHYDRATE	Tin(II) chloride dehydrate, Hydrochloric acid tin(II)-salt dehydrate, Stannic chloride, Stannochlor
SUCROSE	Cane sugar, Saccharose
SULFURIC ACID	Battery acid, Dihydrogen sulfate, Dipping acid, Electrolyte acid, Mattling acid, Sulphuric acid.
TETRACHLOROETHYLENE	Carbon bichloride, Carbon dichloride, Ethylene tetrachloride, Perchlorethylene
TETRAHYDROFURAN	Cyclotetramethylene oxide, Diethylene oxide, 1, 4-Epoxybutane, Oxacyclopentane, Oxolane, Tetramethylene oxide
TOLUENE	Methylbenzene
TRICHLOROACETIC ACID	Trichloroethanoic Acid, TCA
TRICHLOROETHYLENE	Acetylene trichloride, 1-Chloro-2, 2-dichloroethylene, 1, 1-Dichloro-2-chloroethylene, Ethylene trichloride, 1, 1, 2-Trichloroethylene,1, 2, 2-Trichloroethylene
tri-SODIUM CITRATE DIHYDRATE	Citric acid trisodium salt dihydrate, Sodium citrate tribasic dihydrate
UREA	Carbamide, Carbonyldiamide
WATER	Dihydrogen oxide, Distilled water
XYLENE	Dimethylbenzene, Methyl toluene
ZINC SULFATE HEPTAHYDRATE	Zinc vitriol

RCI LABSCAN CHEMICAL PROPERTIES

Product name	CAS-No	Molecular Weight (g/mol)	Density (at20°C)	Boiling Point (°C)	Melting Point (°C)	Flash Point (°C)
ACETIC ACID 50%	64-19-7	60.05	1.07	105	17	39
ACETIC ACID 60%	64-19-7	60.05	1.07	117-118	-	-
ACETIC ACID 96%	64-19-7	60.05	1.06	118	10	39
ACETIC ACID GLACIAL	64-19-7	60.05	1.05	118	17	39
ACETONE	67-64-1	58.08	0.79	56.2	-95.4	-20
ACETONITRILE	75-05-8	41.05	0.786	81.6	-45.7	2
AMMONIUM ACETATE	631-61-8	77.08	1.17	-	114	-
AMMONIUM CHLORIDE	64-19-7	53.49	1.52	-	335	-
AMMONIUM FERROUS (II)	7783-85-9	392.14	1.86	-	100	-
SULFATE HEXAHYDRATE						
AMMONIUM MOLYBDATE TETRAHYDRATE	12054-85-2	1235.86	2.498	-	90	-
AMMONIUM PERSULPHATE	7727-54-0	228.19	1.98	-	120	-
AMMONIUM SULFATE	7783-20-2	132.14	1.77	-	-	-
ASCORBIC ACID	50-81-7	176.12	1.65	-	190	-
BORAX	1303-96-4	381.37	1.72	-	75	-
BORIC ACID	10043-35-3	61.83	1.44	-	185	-
BROMOCRESOL GREEN ,INDICATOR	76-60-8	698.02	-	-	217-218	-
BUTAN-1-OL	71-36-3	74.12	0.81	117	-89.5	34
BUTYL ACETATE (n-BUTYL ACETATE)	123-86-4	116.16	0.88	126	-76	22
CALCIUM CHLORIDE DIHYDRATE	10035-04-8	147.01	1.85	-	176	-
CALCIUM HYDROXIDE	1305-62-0	74.09	2.24	-	550	-
CHLOROBENZENE	108-90-7	112.26	1.11	132	-45	28
CHLOROBUTANE, 1-CHLOROBUTANE	109-69-3	92.58	0.886	78.4	-123	-17
CHLOROFORM	67-66-3	119.38	1.479	61	-63	-
CITRIC ACID MONOHYDRATE	5949-29-1	210.14	1.54	-	135-152	-
CLEANING SOLUTION S	7664-93-9	98.08	1.84	-	-	-
CYCLOHEXANE	110-82-7	84.16	0.779	81	6	-18
CYCLOHEXANONE	108-94-1	98.14	0.945	156.6	-31	43
CYCLOPENTANE 95%	287-92-3	70.14	0.749	49	-93	-42
CYCLOPENTANE 99%	287-92-3	70.14	0.749	49	-93	-42
DICHLOROETHANE, 1, 2-DICHLOROETHANE	107-06-2	98.96	1.25	83.5	-35	13
DICHLOROMETHANE	75-09-2	84.93	1.33	40	-95	-
DIETHYL ETHER	60-29-7	74.12	0.71	34.6	-116.3	-40
DIETHYLAMINE	109-89-7	73.14	0.71	56	-50	-23
DIMETHYLACETAMIDE	127-19-5	87.12	0.94	-20	166	70
DIMETHYLFORMAMIDE	68-12-2	73.1	0.949	153	-61	58
DIMETHYLSULPHOXIDE	67-68-5	78.13	1.1	189	18.5	95
DIOXAN, 1, 4 -DIOXAN	123-91-1	88.11	1.03	101.5	12	11
ERIOCHROME BLACK T	1787-61-7	461.38	-	-	-	-
ETHANOL 50%	64-17-5	46.07	0.93	-	-	-
ETHANOL	64-17-5	46.07	0.79	78.3	-114.5	12
ETHYL ACETATE	141-78-6	88.11	0.9	77	-83	-4
ETHYLENEDIAMINE TETRAACETIC ACID DISODIUM SALT	6381-92-6	372.24	-	-	252	-
FORMALDEHYDE (35%~40%)	50-00-0	30.03	1.09	93-96	<-15	>62

Product name	CAS-No	Molecular Weight (g/mol)	Density (at20°C)	Boiling Point (°C)	Melting Point (°C)	Flash Point (°C)
GLYCINE, AR	56-40-6	75.07	1.595	-	232-236	-
HEPTANE, n-HEPTANE (95%~99%)	142-82-5	100.21	0.68	97-98	-90.5	-4
HEPTANE FRACTION,LC	142-82-5	100.21	0.68-0.69	97-98	-90.5	-4
HEXANE, n-HEXANE (95%~99%)	110-54-3	86.18	0.66	69	-94.3	-22
HEXANE FRACTION	110-54-3	86.18	0.66	67-69	-94.3	-22
HYDROCHLORIC ACID (0.1N~4.0N)	7647-01-0	-	-	-	-	-
HYDROCHLORIC ACID 3%	7647-01-0	36.46	1.02	-	-	-
HYDROCHLORIC ACID 4%	7647-01-0	36.46	1.02	-	-	-
HYDROCHLORIC ACID 5%	7647-01-0	36.46	1.03	-	-	-
HYDROCHLORIC ACID 7.5%	7647-01-0	36.46	1.04	-	-	-
HYDROCHLORIC ACID 9%	7647-01-0	36.46	1.04	-	-	-
HYDROCHLORIC ACID 10%	7647-01-0	36.46	1.05	102	-15	-
HYDROCHLORIC ACID 18%	7647-01-0	36.46	1.09	108	-59	-
HYDROCHLORIC ACID 20%	7647-01-0	36.46	1.09	108	-59	-
HYDROCHLORIC ACID 25%	7647-01-0	36.46	1.12	107	-55	-
HYDROCHLORIC ACID 30%	7647-01-0	36.46	1.15	90	-50	-
HYDROCHLORIC ACID 32%	7647-01-0	36.46	1.16	85	-40	-
HYDROCHLORIC ACID 35%	7647-01-0	36.46	1.17	61	-30	-
HYDROCHLORIC ACID 36%	7647-01-0	36.46	1.18	61	-30	-
HYDROCHLORIC ACID 37%	7647-01-0	36.46	1.19	51	-30	-
HYDROGEN PEROXIDE SOLUTION 50%	7722-84-1	34.01	1.19	14	-52	-
IODINE (RESUBLIMED)	7553-56-2	253.81	4.93	185	114	-
MAGNESIUM CHLORIDE HEXAHYDRATE	7791-18-6	203.3	1.57	1412	117	-
MAGNESIUM OXIDE	1309-48-4	40.3	3.58	3600	2800	-
MAGNESIUM SULFATE ANHYDROUS	7487-88-9	120.37	2.66	-	1124	-
MAGNESIUM SULFATE HEPTAHYDRATE	10034-99-8	246.48	1.68	-	1124	-
METHANOL	67-56-1	32.04	0.79	64.5	-98	11
METHYL ETHYL KETONE	78-93-3	72.11	0.805	79.6	-86	-4
METHYL ISOBUTYL KETONE	108-10-1	100.16	0.8	116-118	-84	14
METHYL ORANGE,INDICATOR	547-58-0	327.34	-	-	> 300	-
METHYL RED,INDICATOR	493-52-7	269.31	-	-	181-182	-
METHYL-2-PYRROLIDONE , n-METHYL-2-PYRROLIDONE	872-50-4	99.13	1.03	202	-24	91
METHYLBUTANE 95%~99%	78-78-4	72.15	0.619	27.9	-160	-57
METHYLCYCLOHEXANE	108-87-2	98.19	0.769	100.9	-126	-4
METHYL-t-BUTYL ETHER	1634-04-4	88.15	0.74	55.3	-108.6	-28
NITRIC ACID 10%	7697-37-2	63.01	1.05	102	-6.4	-
NITRIC ACID 30%	7697-37-2	63.01	1.18	107.2	-36.3	-
NITRIC ACID 5%	7697-37-2	63.01	1.03	101	-2.7	-
NITRIC ACID 50%	7697-37-2	63.01	1.31	114.7	-19.2	-
NITRIC ACID 65%	7697-37-2	63.01	1.39	119.6	-29.1	-
NITRIC ACID 70%	7697-37-2	63.01	1.41	119.9	-41	-
NITRIC ACID 90% Fuming	7697-37-2	63.01	1.48	96.2	-65.2	-
NITRIC ACID 95% Fuming	7697-37-2	63.01	1.49	87.1	-49.5	-
NITRIC ACID 97% Fuming	7697-37-2	63.01	1.49	85.2	-45.3	-
NITRIC ACID 98% Fuming	7697-37-2	63.01	1.5	84.4	-43.6	-

Product name	CAS-No	Molecular Weight (g/mol)	Density (at20°C)	Boiling Point (°C)	Melting Point (°C)	Flash Point (°C)
NONANE, n-NONANE 95%	111-84-2	128.26	0.72	151	-53	31
NONANE, n-NONANE 99%	111-84-2	128.26	0.72	151	-53	31
OCTANE, n-OCTANE 95%	111-65-9	114.23	0.703	125.7	-57	13
OCTANE, n-OCTANE 99%	111-65-9	114.23	0.703	125.7	-57	13
PENTANE, n-PENTANE 95%	109-66-0	72.15	0.63	36.1	-129.7	-48
PENTANE, n-PENTANE 99%	109-66-0	72.15	0.63	36.1	-129.7	-48
PETROLEUM ETHER 40-60	64742-49-0	-	0.645-0.665	40-0	-	< -21
PETROLEUM ETHER 60-80	64742-49-0	-	0.68	60-80	-	< -20
PHENOLPHTHALEIN, INDICATOR	77-09-8	318.32	1.3	> 450	258-261	-
PHOSPHORIC ACID, ortho-PHOSPHORIC ACID 85%	7664-38-2	98	1.71	158	21	-
POTASSIUM DIHYDROGEN ORTHOPHOSPHATE ANHYDROUS	7778-77-0	136.09	2.34	-	253	-
POTASSIUM HYDROXIDE 0.1 N	1310-58-3					
POTASSIUM HYDROXIDE 85%	1310-58-3	56.11	2.04	1320	360	-
POTASSIUM HYDROXIDE SOLUTION 30%	1310-58-3	56.11	1.28	-	-	-
POTASSIUM HYDROXIDE SOLUTION 11%	1310-58-3	56.11	1.1	-	-	-
POTASSIUM IODATE	7758-05-6	214	3.98	-	560	-
POTASSIUM IODIDE	7681-11-0	166.01	3.13	1325	681	-
POTASSIUM SODIUM (+) TARTRATE TETRAHYDRATE	6381-59-5	282.23	-	-	-	-
POTASSIUM SULFATE	7778-80-5	174.26	2.66	1689	1067	-
PROPAN-1-OL	71-23-8	60.1	0.804	97	-127	15
PROPAN-2-OL 80%	67-63-0	60.1	0.848	82.4	-89.5	~18
PROPAN-2-OL	67-63-0	60.1	0.786	82.4	-89.5	12
SILVER NITRATE,AR	7761-88-8	169.87	4.35	444	212	-
SODIUM ACETATE TRIHYDRATE	6131-90-4	136.08	1.42	> 400	58	>250
SODIUM CHLORIDE 99%~99.9%	7647-14-5	58.44	2.17	1461	801	-
SODIUM HYDROGEN CARBONATE	144-55-8	84.01	2.2	-	270	-
SODIUM HYDROGEN PHOSPHATE ANHYDROUS, di-SODIUM HYDROGEN PHOSPHATE ANHYDROUS	7558-79-4	141.96	-	-	250	-
SODIUM HYDROGEN PHOSPHATE ANHYDROUS, di-SODIUM HYDROGEN PHOSPHATE DIHYDRATE	10028-24-7	177.99	2.1	-	92.5	-
SODIUM HYDROXIDE (MICROPEARLS)	1310-73-2	40	2.13	1390	323	-
SODIUM HYDROXIDE 0.1~1.0N	1310-73-2	-	-	-	-	-
SODIUM HYDROXIDE 97%~99%	1310-73-2	40	2.13	1390	323	-
SODIUM HYDROXIDE SOLUTION 25%	1310-73-2	40	1.28	-	-	-
SODIUM HYDROXIDE SOLUTION 30%	1310-73-2	40	1.33	-	-	-
SODIUM HYDROXIDE SOLUTION 35%	1310-73-2	40	1.38	-	-	-
SODIUM HYDROXIDE SOLUTION 48%	1310-73-2	40	1.53	-	-	-
SODIUM NITRATE	7631-99-4	69	2.132	280	-	-
SODIUM NITRITE	7632-00-0	84.99	2.26	-	308	-
SODIUM SULFATE ANHYDROUS	7757-82-6	142.04	2.7	-	888	-
SODIUM THIOSULFATE 0.1 N	10102-17-7					
SODIUM THIOSULFATE PENTAHYDRATE	10102-17-7	248.21	1.74	-	48	-

Product name	CAS-No	Molecular Weight (g/mol)	Density (at20°C)	Boiling Point (°C)	Melting Point (°C)	Flash Point (°C)
STANNOUS(II) CHLORIDE DIHYDRATE	10025-69-1	225.63	2.71	623	38	-
SUCROSE, AR	57-50-1	342.3	-	-	169-170	-
SULFURIC ACID 0.1-1.0 N	7664-93-9	-	-	-	-	-
SULFURIC ACID 50%	7664-93-9	98.08	1.39	123.3	36.5	-
SULFURIC ACID 60%	7664-93-9	98.08	1.49	140	-28.7	-
SULFURIC ACID 81%	7664-93-9	98.08	1.74	210	2.5	-
SULFURIC ACID 89%	7664-93-9	98.08	1.81	256	-1.5	-
SULFURIC ACID 96%	7664-93-9	98.08	1.84	310	-11.1	-
SULFURIC ACID 98%	7664-93-9	98.08	1.84	330	1.5	-
TETRACHLOROETHYLENE	127-18-4	165.83	1.62	121	-22	-
TETRAHYDROFURAN	109-99-9	72.11	0.89	65-66	-108.5	21.5
TOLUENE	108-88-3	92.14	0.87	110.6	-95	4
TRICHLOROACETIC ACID	76-03-9	163.38	1.63	54-56	197	> 110
TRICHLOROETHYLENE	79-01-6	131.79	1.46	87	-86	-
TRIMETHYLPENTANE, PC (2, 2, 4 – TRIMETHYLPENTANE)	540-84-1	114.23	0.69	99	-107	-12
tri-SODIUM CITRATE DIHYDRATE	6132-04-3 .	294.1	1.76	-	150	-
UREA	57-13-6	60.6	1.34	-	133	-
WATER	7732-18-5	18.02	1	100	0	-
WIJS SOLUTION	64-19-7	60.05	1.06	-	-	40
WIJS SOLUTION 0.1 N	64-19-7	60.05	1.06	-	-	40
XYLENE	1330-20-7	106.17	0.86	137-143	7-141	25
ZINC SULFATE HEPTAHYDRATE	7446-20-0	287.54	1.97	-	100	-

EFFECT OF CHEMICALS ON PLASTICS

Chemicals can affect the strength, flexibility, surface appearance, color, dimensions or weight of plastic. The basic modes of interaction which these changes are:

(1) chemical attack on the polymer chain, with resultant reduction in physical properties, including oxidation; reaction of functional groups in or on the chain, and depolymerization;

(2) physical change, including absorption of solvents, resulting in softening and swelling of the plastic permeation of solvent through the plastic, and dissolution in a solvent,

(3) stress-crackin from the interaction of a “stress-cracking agent” with molded-in or external stresses. Also see “Chemical Resistance Classification”.

The reactive combination of compounds of two or more classes may cause a synergistic or undesirable chemical effect. Other factors affecting chemical resistance include temperature, pressure and internal or external stresses (e.g. centrifugation), length of exposure and concentration of the chemical. As temperature increases, resistance to attack decreases.

Resin Codes:	
ECTFE	Ethylene-chlorotrifluoroethylene copolymer
ETFE	Ethylene-tetrafluoroethylene
FEP	Fluorinated ethylene propylene
HDPE	high-density polyethylene
LDPE	low-density polyethylene
PC	polycarbonate
PETG	polyethylene terephthalate copolymer
PFA	Perfluoroalkoxy
PMP	polymethylpentene
PP	polypropylene
PPCO*	polypropylene copolymer
PS	polystyrene
PSF	polysulfone
PVC	polyvinyl choloride
PVDF	polyvinylidene fluoride
TEE	Tetrafluoroethylene
TMX	Thermanox
PMX	Permanox

*PPCO has replaced polyallomer (PA) in all products.

First letter of each pair applies to conditions at 20°C; the second to those at 50°C. At 20°C->EG <-at50°C

GENERAL KNOWLEDGE FOR CHEMICAL

CHEMICAL	LDPE	HDPE	PP	PPCO	PMP	PETG	FEP	TFE	PEA	ECTFE	ETFE	PC	RIGID PVC	FLEX. PVC	PSF	PS	PVDF	TMX	PMX
ACTIC ACID 95%	EG	EE	EG	EG	EG	NN	EE	EE	EE	EE	EE	NN	EG	NN	FN	NN	EG	EN	EG
ACETONE	NN	NN	GG	GG	EE	NN	EE	EE	EE	GF	GF	NN	NN	NN	NN	NN	NN	EF	EE
ACETONITRILE	EE	EE	FN	FN	FN	-	EE	EE	EE	EE	EE	NN	NN	NN	NN	NN	EE	-	FN
AMMONIUM ACETATE	EE	EE	EE	EE	EE	-	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	-	EE
AMMONIUM CHLORIDE	EE	EE	EE	EE	EE	-	EE	EE	EE	EE	EE	EG	EE	EG	EE	EE	EE	E-	EE
BORIC ACID	EE	EE	EE	EE	EE	NN	EE	EE	EE	EE	EE	EE	EE	GG	-	EG	EE	-	EE
CYCLOHEXANE	FN	FN	FN	FN	NN	-	EE	EE	EE	EG	EG	EG	GF	NN	NN	NN	EE	-	NN
CYCLOHEXANONE	NN	FN	FN	FN	GF	NN	EE	EE	EE	EE	EE	NN	NN	NN	NN	NN	FN	EF	GF
CYCLOPENTANE	NN	FN	FN	FN	FN	-	EE	EE	EE	EE	EE	NN	FN	NN	NN	NN	EE	-	FN
1,2 DICHLOROETHANE	NN	NN	NN	NN	NN	NN	EE	EE	EE	EE	EE	NN	FN	NN	NN	NN	EE	-	NN
DIETHYL ETHER	NN	FN	NN	NN	NN	-	EE	EE	EE	EG	EG	NN	FN	NN	NN	NN	EG	EN	NN
DIETHYLAMINE	NN	FN	GN	GN	FF	-	EE	EE	EE	EG	EG	NN	NN	NN	GF	GG	NN	-	FF
DIMETHYLACETAMIDE	FN	EE	EE	EE	FG	-	EE	EE	EE	EG	EG	NN	NN	NN	NN	NN	NN	EN	FG
DIMETHYLFORMAMIDE	EE	EE	EE	EE	EE	-	EE	EE	EE	GG	GG	NN	FN	NN	NN	NN	NN	EN	EE
DIMETHYLSULPHOXIDE	EE	EE	EE	EE	EE	NN	EE	EE	EE	EG	EG	NN	NN	NN	NN	EG	NN	EN	EE
1,4 DIOXAN	GF	GG	GF	GF	GF	-	EE	EE	EE	EF	EF	GF	FN	FN	FN	GF	NN	EN	GF
ETHANOL	EG	EE	EG	EG		G-	EE	EE	EE	EE	EE	EG	EE	GF	EG	GF	EE	EN	EG
ETHYL ACETATE	EE	EE	EG	EE	FN	NN	EE	EE	EE	EE	EE	NN	NN	NN	NN	NN	NN	EN	FN
FORMALDEHYDE 40%	EG	EE	EG	EG	EG	-	EE	EE	EE	EE	EE	EG	GF	FN	GF	NN	EE	E-	EG
HYDROCHLORIC ACID 35-37%	EE	EE	EG	EG	EG	-	EE	EE	EE	EE	EE	NN	GF	GN	EE	FF	EE	NN	EG
IODINE (RESUBLIMED)	NN	NN	FN	GN	-	-	EE	EE	EE	EG	EG	NN	NN	NN	NN	NN	EF	-	GN
MAGNESIUM CHLORIDE HEXAHYDRATE	EE	EE	EE	EE	EE	-	EE	EE	EE	EE	EE	EE	EE	GN	EE	EE	EE	E-	EE
METHANOL	EE	EE	EE	EE	EE	G-	EE	EE	EE	EE	EE	GF	EF	FN	GF	FN	EE	EN	EE
METHYL ETHYL KETONE	NN	NN	EG	EG	NN	G-	EE	EE	GF	GF	NN	NN	NN	NN	NN	NN	NN	E-	NN
METHYL ISIBUTYL KETONE	NN	NN	GF	GF	FF	NN	EE	EE	EE	GF	GF	NN	NN	NN	NN	NN	GN	E-	FF
METHYL TERT-BUTYL ETHER	NN	FN	FN	FN	EE	NN	EE	EE	EE	EG	EG	NN	NN	NN	NN	NN	EE	-	EE
n-BUTYL ACETATE	GF	GF	GF	GF	GF	-	EG	EE	EE	EG	NN	NN	NN	NN	NN	NN	GN	G-	GF
n-HEPTANE	FN	GF	FF	FF	FF	-	EE	EE	EE	EE	EE	EG	GF	NN	EG	NN	EE	E-	FF
n-HEXANE 95%	NN	GF	GF	GF	FN	E-	EE	EE	EE	EE	EE	FN	GN	NN	EG	NN	EE	E-	FN
NITRIC ACID 65-70%	FN	GN	NN	NN	FN	NN	EE	EE	EE	EE	EE	NN	FN	NN	NN	NN	GF	NN	FN
n-OCTANE	EE	EE	EE	EE	EE	-	EE	EE	EE	EE	EE	GF	FN	NN	GF	NN	EE	-	EE
ORTHO-PHOSPHORIC ACID 85%	EE	EE	EG	EG	EG	-	EE	EE	EE	EE	EE	EG	EG	GF	EE	EG	EE	NN	EG
SILVER NITRATE	EG	EE	EG	EG	EF	-	EE	EE	EE	EE	EE	EE	EG	EG	EE	GF	EE	GN	EE
SULFURIC ACID 96-98%	GC	GC	FN	FN	GG	NN	EE	EE	EE	EE	EE	NN	GN	NN	NN	NN	EG	NN	GG
TETRAHYDROFURAN	FN	GF	GF	GF	FF	-	EE	EE	EE	GF	GF	NN	NN	NN	NN	NN	FN	-	FF
TOLUENE	FN	FN	FN	GF	FF	FN	EE	EE	EE	EE	EE	FN	NN	NN	NN	NN	EE	GN	FF
TRICHLOROETHYLENE	NN	FN	NN	NN	NN	-	EE	EE	EE	EG	EG	NN	NN	NN	NN	NN	EE	GN	NN
2,2,4-TRIMETHYLPENTANE	FN	FN	FN	FN	FN	-	EE	EE	EE	EG	EG	NN	NN	NN	GF	NN	EE	-	FN
XYLENE	GN	FN	FN	FN	FN	-	EE	EE	EE	EG	NN	NN	NN	NN	NN	NN	EE	GN	FN
ZINC SULFATE (HEPTAHYDRATE)	EE	EE	EE	EE	EE	-	EE	EE	EE	EE	EE	EE	EE	GN	EE	EE	EE	E-	EE

E No damage after 30 days of constant exposure.

F Some effect after 7 days of constant exposure.

G Little or no damage after 30 days of constant exposure.

N Immediate damage may occur. Not recommended for continuous use.

RCI LABSCAN SALES AND DELIVERY CONDITIONS

1. DEFINITIONS

In these Sales and Delivery Conditions

"The Company" means RCI Labscan Limited.

"The Customer" means the person, firm or company who buys or agrees to buy the goods from the company.

"The Goods" means the product or materials which the customer buys from the company.

2. GENERAL

a) These terms and conditions shall apply without variation to every contact entered into by the Company for the sale of good unless a variation hereto is expressly agreed in writing by the Company.

b) These terms and conditions shall apply notwithstanding any inconsistency among them or with the terms and conditions set forth in any agreement provided by the Customers.

c) All other terms and conditions not contained herein are expressly excluded unless expressly agreed upon in writing by the Company

3. PRICE

a) Unless under exception herein, the price of the Goods shall be the Company's quoted price, which shall bind Company provided that the Customer accepts the Company's quotation with in 7 days.

b) The Company may by giving notice to the Customer at any time up to 7 days before delivery increases the price of goods to reflect any increase in cost incurred by the Company due to factors arising after the making the Sales contract which are beyond the reasonable control of the Company (include or without limitation, foreign exchange fluctuations, taxes and manufacturing costs.) Provided that the Customer may cancel this contract within 7 days after receiving such notice from the Company

c) The price in a) is exclusive of V.A.T. which shall be due at the rate ruling on the date of the Company's invoice.

4. DELIVERY

a) Any time or date quoted for delivery of the Goods is Solely an approximation and the Company shall not be liable for any delay in the delivery for whatsoever cause. Time spent for delivery shall not be of essence unless otherwise prior agreed upon by the Company in writing

b) If the Customer causes the delivery of the Goods, in whole or in part, to be delayed, it shall be deemed at the sole risk of the Customer and the Customer is responsible for all incurred expenses

c) If the Company fails to deliver the Goods for any reason, other than cause beyond the Company's reasonable control or due to the Customers' own fault, the Company shall be liable to provide the Customer with similar goods at the cheapest price available on the market.

5. PAYMENT

a) The Customer shall pay the Company for the Goods according to the payment terms states in the invoice issue by the Company. Prompt payment is essential.

b) If for any reason whatsoever payment is not made within in due date, the Customer shall be liable to pay interest on such amount at the rate of 2% per annum over the MLR rates announced by Thai Banks prevailing on that period on the Company's Banker from time to time force and shall accrue at such a rate after as well as before any judg ment obtained.

c) Failure by the Customer to make any payment hereunder within the due date shall entitle the Company, at its sale option to cancel or suspend any contract without prejudge to any other rights the Company may have against the Customer.

6. WARRANTIES AND LIABILITIES

The Company warrants that the Goods at the time of delivery correspond to the description given by the Company provided always that the Company may, from time to time, without notice to the Customer, make alteration to specification of the Goods which are required to comply with any applicable safety or statutory requirements or which do not materially affect the quality of fitness for the purpose of the Goods. Except where the Customer is dealing as a consumer, all other warranties, conditions or terms relating to fitness for purpose, merchant ability on condition of the Goods and whether implied by Statute of Common Law otherwise are hereby excluded.

7. CLAIMS

a) The Customer shall inspect the Goods on delivery and shall within 7 days of delivery notify the Company of all alleged defect, shortage in quantity, damage of failure to comply with the description. The customer shall afford the Company an opportunity to inspect the Goods within 14 days after delivery and before any use is made of them. If the Customer shall fail to comply with these provisions, the Goods shall be conclusively presumed to be in accor dance with the Contact and free from any defect or damage which would be apparent on a reasonable examination of Goods and the customer shall be deemed to have accepted the Goods.

b) The Customer shall notify the Company of failure deliver in whole or in part of the consignment, within 7 days from the date of delivery. Notwithstanding the receipt by the Company of such notice , a clear signature on the carrier delivery advice sheet shall be deemed to signify receipt of the Goods according to the Quantity indicated on the advice sheet.

c) If the Goods are not in accordance with the Contract for any reason whatsoever, the Customers sole remedy other than Company making Goods any shortage by replacing such Goods or, is by choosing the option of a refund for the proportional part of the price instead of the replacement

d) The Company's liability to the Customer, whether for any breach of contract or otherwise, shall not in any event exceed the price of the Goods and the Company shall be under no liability for any direct loss and or expense or indirect loss and / or expense suffered by the Customer or liability to third parties incurred by the Customer.

8. CONDITIONS OF PURCHASE

The rights and obligation of the Customer shall not be assigned or transferred without the prior written consent of the Company

9. TERMINATION OR SUSPENSION

Without prejudice to any of its rights, the Company may terminate the Contract suspend other delivers to the Customer in the event that the Customer fails to make due payment for any Goods or if any distress execution or legal process shall be levied upon the Customer or the Customer becomes insolvent or being a body incorporate has passed a Resolution for Voluntary winding up or subject to a winding up Order of the Court or a receiver has been appointed.

10. PROPERTY AND RISK

a) The goods shall be at the Customer's sole risk as from delivery. In spite of delivery having being made, ownership of the Goods shall not pass from the Company until:

1) The Buyer shall have paid the price plus V.A.T in full

2) No other sums whatever shall be due from the Customer to Company.

b) Until ownership of the Goods passes to the Customer in accordance with Clause a) above, the Customer shall hold the Goods and each of them on a fiduciary basis for the company The Customer shall store the Goods free of cost separately from all other Goods in its possession and marked in such a way that they are clearly identified as the company's property.

c) The Company shall be entitled to recover the price (plus V.A.T.) notwithstanding that the ownership in the Goods has no left the Company.

d)Until such time which the ownership of the goods passes from the Company, the Customer shall upon request deliver up the goods to the company. If the Customer fails to do so, the Company may enter upon the premises owned controlled or occupied by the Customer where the Goods are repossess the Goods.

e)The Customer shall not pledge or in any way place as security for indebtedness, any of the Goods which are still the property of the Company. Without prejudice to the other rights of the Company, if the Customer does so all sums whatsoever owing by the Customer to the Company shall forthwith become due and payable

f) The Customer shall insure and keep insured to cover the total price of the Goods against all risks to reasonably satisfy the Company until the date the ownership in Goods leaves the Company and shall provide the Company with a copy of the policy of Insurance on request. Without prejudice to the other rights of the Company, if the Customer fails to do so all sums whatsoever owned by the Customer to the Company shall forthwith become due and payable.

11. SET OFF AND COUNTERCLAIM

The Customer may not withhold payment of any invoice or other payment due to the Company by reason of any right of set off or counterclaim which the Customer may have or allege to have for any reason whatsoever.

12. MARKING AND PACKING GOODS

The goods shall be marked in accordance with the Customer's instruction and all lawful requirement and properly packed and secured for delivery to the Customer.

13. INTELLECTUAL PROPERTY

The specification of the Goods (including any intellectual property rights in them) shall, as between the parties, be the property of the Company. Where any specification has been supplied by the Customer for manufacture by or to the order of the Company then the Customer warrants that the use of those specification for the manufacturer, processing assembly or supply of the Goods shall not infringe the rights of any third party.

14. SEVERANCE

Any provision of this Contract which is or may be void or unenforceable shall to the extent of such invalidity or unenforceability, be deemed severable and shall not effect any other provision of this Contract.

15. WAIVER

No waiver or forbearance by the Company (whether expressed or implied) in enforcing any of its rights under this Contract shall prejudice its right to do so in the future.

16. FORCE MAJEURE CLAUSE

Either party shall be liable for any default due to any act of God, war, strike, lock-out, industrial, action, faire, flood , draught, tempest or other event beyond the reasonable control of either party.

17. PROPER LAW OR CONTRACT

This contract is subject to the Law of the Kingdom of Thailand in relation to any contract with RCI Labsacn Limited

RCI Labscan GROUP

EOS scientific

Wako

AURORA WISDOM
Total Gloves Solutions

RW

LABSOLV

supertek

ROTH

NEWSTAR 新星

ALWSCI Technologies

Your reliable source of quality laboratory products

We are a leading supplier of laboratory products

- **EOS Scientific,** part of RCI Labscan group, was established on July 1, 2009 to market, sell, and distribute chemicals and laboratory products in Asia Pacific. The company is managed by scientists and chemists with advanced degrees and decades of hands-on experience.

We are more than just a trading company

Our differentiation

- **We pre-qualify, test and approve** all our brands. we constantly review & audit our suppliers to make sure our customers get the best quality and value.
- Our **own testing laboratory** allows us to control and ensure the quality of our products.
- We also have our **own manufacturing facilities** to produce some of our key products.

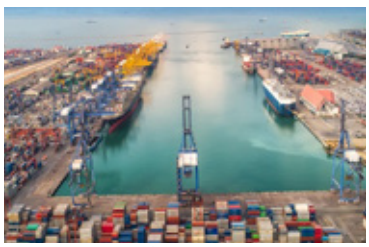
RSAC

RCI SYSTEMS & ADVANCED CHEMICALS

About Us

- **RSAC** is a 100% owned by RCI Labscan
  RCI Labscan is a premium manufacturer and supplier of high purity acids and solvents.
- **RSAC** is specialised in the Electronic and Solar PV Industries

A Strategic location


Laem Chabang port
20 km

Bangkok
130 km

Suvarnabhumi Intl. Airport
100 km

Products Offering

- HF Chemical

Quality level: UP, EL
Packaging capability: ISO Container, IBC, 55 Gal Drum
Notes: Local Trans-filling & Re-packaging

- HNO3 Chemical

Quality level: UP, EL
Packaing capability: ISO Container, IBC, 55 Gal Drum
Notes: Local Purification, Packaging

- HCL Chemical

Quality level: UP, EL
Packaging capability: ISO Container, IBC, 55 Gal Drum
Notes: Local Purification, Packaging

- KOH Chemical

Quality level: EL
Packaging capability: ISO Container, IBC, 55 Gal Drum
Notes: Local Purification, Packaging

- NaOH Chemical

Quality level: EL
Packaging capability: IBC, 55 Gal Drum
Notes: Local Purification, Packaging

- POCL3 Chemical

Packaging capability: 1.6 kg & 2.5 kg Bubbler
Notes: Packaging Recycling used

- TMA Chemical

Packaging capability: 14.2 kg, 72 kg & 300 kg canister
Notes: Packaging Recycling used

- DEC Chemical

Packaging capability: 1.5 L
Notes: Packaging Recycling used

PERIODIC TABLE OF THE ELEMENTS

1 H Hydrogen 1.008																	2 He Helium 4.002602
3 Li Lithium 6.94	4 Be Beryllium 9.012182											5 B Boron 10.81	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998403163	10 Ne Neon 20.1797
11 Na Sodium 22.98976928	12 Mg Magnesium 24.305											13 Al Aluminium 26.9815385	14 Si Silicon 28.085	15 P Phosphorus 30.973761998	16 S Sulfur 32.06	17 Cl Chlorine 35.45	18 Ar Argon 39.948
19 K Potassium 39.0983	20 Ca Calcium 40.078	21 Sc Scandium 44.955908	22 Ti Titanium 47.867	23 V Vanadium 50.9415	24 Cr Chromium 51.9961	25 Mn Manganese 54.938044	26 Fe Iron 55.845	27 Co Cobalt 58.933194	28 Ni Nickel 58.6934	29 Cu Copper 63.546	30 Zn Zinc 65.38	31 Ga Gallium 69.723	32 Ge Germanium 72.63	33 As Arsenic 74.921595	34 Se Selenium 78.971	35 Br Bromine 79.904	36 Kr Krypton 83.798
37 Rb Rubidium 85.4678	38 Sr Strontium 87.62	39 Y Yttrium 88.90585	40 Zr Zirconium 91.224	41 Nb Niobium 92.90637	42 Mo Molybdenum 95.95	43 Tc Technetium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.9055	46 Pd Palladium 106.42	47 Ag Silver 107.8682	48 Cd Cadmium 112.414	49 In Indium 114.818	50 Sn Tin 118.710	51 Sb Antimony 121.760	52 Te Tellurium 127.60	53 I Iodine 126.90447	54 Xe Xenon 131.293
55 Cs Caesium 132.90545196	56 Ba Barium 137.327	* 57-71	72 Hf Hafnium 178.49	73 Ta Tantalum 180.94788	74 W Tungsten 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.217	78 Pt Platinum 195.084	79 Au Gold 196.966569	80 Hg Mercury 200.59	81 Tl Thallium 204.38	82 Pb Lead 207.2	83 Bi Bismuth 208.98040	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	† 89-103	104 Rf Rutherfordium (267)	105 Db Dubnium (268)	106 Sg Seaborgium (271)	107 Bh Bohrium (272)	108 Hs Hassium (270)	109 Mt Meitnerium (276)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (280)	112 Cn Copernicium (285)	113 Nh Nihonium (284)	114 Fl Flerovium (289)	115 Mc Moscovium (288)	116 Lv Livermorium (293)	117 Ts Tennessine (294)	118 Og Oganesson (294)

* Lanthanides	57 La Lanthanum 138.90547	58 Ce Cerium 140.116	59 Pr Praseodymium 140.90766	60 Nd Neodymium 144.242	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.964	64 Gd Gadolinium 157.25	65 Tb Terbium 158.92535	66 Dy Dysprosium 162.500	67 Ho Holmium 164.93033	68 Er Erbium 167.259	69 Tm Thulium 168.93422	70 Yb Ytterbium 173.054	71 Lu Lutetium 174.9668
† Actinides	89 Ac Actinium (227)	90 Th Thorium 232.0377	91 Pa Protactinium 231.03588	92 U Uranium 238.02891	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)	103 Lr Lawrencium (262)

Nonmetals				Metals					
Noble Gases	Halogens	Other nonmetals	Metalloids	Posttransition metals	Transition metals	Lanthan-oids	Actinoids	Alkaline earth metals	Alkali metals

Symbol Colours show state at standard temperture and pressure (0°C and 1 atm)

Solid Gas Liquid Unknown

www.rcilabscan.com

RCI Labscan GROUP

RCI Labscan
GROUP

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