

Mining Lab Chemical Supplies

South East Asia brochure 2022

VWR, part of Avantor, has long been the leading global, independent provider of product and service solutions to laboratory and production customers serving customers across many industries including mining. In 2017, VWR was acquired by Avantor, a global supplier of ultra-high purity materials and customized solutions for the life sciences and advanced technology industries. Together, our fundamental purpose is driven by our passion for science and commitment to helping you accelerate innovation. This is especially true when it comes to the science of mineral research and exploration. The goal of VWR's Mining team is to support the key individuals who drive progress at mining laboratories around the world - lab managers, chief assayers, and purchasers. By making the lives of these key individuals easier with high-quality products, competitive prices, and one-stop-shop purchasing, VWR proudly enables the advancement of the mining industry worldwide.

We are the go-to supplier to mining laboratories around the world, and as such this brochure outlines the unique breadth of chemicals that only VWR can offer. Throughout this brochure you will also see the hundreds of chemicals that VWR, part of Avantor, proudly manufactures.



Can't find what you are looking for? Chances are we have it on one of our websites. Given the growing breadth of our chemical offering for mining laboratories, we could not fit everything into one brochure!

LABELS? OR CERTIFICATION?

REFERENCE TOOLS

MOLAR: The number of moles of solute per liter of solution

Molar = M = Moles of Solute/Liters of Solution

MOLALITY: The number of moles of solute per kilogram of solvent

Molality = m = Moles of Solute/Kilograms of Solvent

NORMAL: The molar times equivalents per mole

Normal = N = M x Equiv/mol

PERCENTAGE COMPOSITION: Expressed in terms of mass, volume, or mass per volume

% by mass = (w/w) = (Mass of solute/Mass of solution) x 100

% by volume = (v/v) = (Volume of solute/Volume of solution) x 100

% by mass volume = (w/v) = (Mass of solute/Volume of solution) x 100

DENSITY: Mass per unit of volume, usually g/mL

Density = $\rho = m/V$



PERCENT TO PARTICLE COUNT CONVERSIONS

Percent	PPM	PPB	PPT
0.01%	100	100,000	100,000,000
0.00%	10	10,000	10,000,000
0.00%	1	1,000	1,000,000
0.00%	0.1	100	100,000
0.00%	0.01	10	10,000
0.00%	0.001	1	1,000
1x10 ⁻⁷	0.0001	0.1	100
1x10 ⁻⁸	0.00001	0.01	10
1x10 ⁻⁹	0.000001	0.001	1

COMMON MOLAR/NORMAL CONVERSIONS

Solution	Formula Weight	Molar	Normal
Acetic Acid	60.05	1	1
Ammonium Hydroxide	35.05	1	1
Ammonium Thiocyanate	76.12	1	1
Arsenic Trioxide	197.84	1	4
Ceric Sulfate	528.4	1	1
Hydrochloric Acid	36.46	1	1
Iron(II) Ammonium Sulfate	392.14	1	1
Mercury(II) Nitrate	342.62	1	2
Nitric Acid	63.01	1	1
Perchloric Acid	100.46	1	1
Potassium Biiodate	389.91	1	12
Potassium Bromate	167	1	6
Potassium Dichromate	294.18	1	6
Potassium Hydroxide	56.11	1	1
Potassium Thiocyanate	97.18	1	1
Silver Nitrate	169.87	1	1
Sodium Carbonate	105.99	1	2
Sodium Hydroxide	40	1	1
Sodium Thiosulfate	248.19	1	1
Sulfuric Acid	98.08	1	2
Trichloroacetic Acid	163.39	1	1

COMMON UNIT CONVERSIONS FOR STANDARDS AND SAMPLES

1 mg/mL is the same as:	1 µg/mL is the same as:	1 ng/mL is the same as:
1 g/L	0.001 g/L	10 ⁻⁶ g/L
1000 mg/L	1 mg/L	0.001 mg/L
1 mg/mL	0.001 mg/mL	10 ⁻⁶ mg/mL
1000 µg/mL	1 µg/mL	0.001 µg/mL
1000 ppm	1 ppm	0.001 ppm
10 ⁶ µg/L	1000 µg/L	1 µg/L
10 ⁹ ng/L	10 ⁶ ng/L	1000 ng/L
10 ⁶ ppb	1000 ppb	1 ppb
0.1 %	0.0001 %	0.0000001 %

PH OF COMMON ACIDS

Acids (pH<7)	Molarity	pH
Acetic	N	2.4
Acetic	0.1N	2.9
Acetic	0.01N	3.4
Alum	0.1N	3.2
Arsenious	Saturated	5
Benzoic	0.1N	3
Boric	0.1N	5.3
Carbonic	Saturated	3.8
Citric	0.1N	2.10
Formic	0.1N	2.3
Hydrochloric	N	0.1
Hydrochloric	0.1N	1.1
Hydrochloric	0.01N	2
Hydrocyanic	0.1N	5.1
Hydrogen Sulfide	0.1N	4.1
Lactic	0.1N	2.4
Malic	0.1N	2.2
Orthophosphoric	0.1N	1.5
Oxalic	0.1N	1.3
Succinic	0.1N	2.7
Salicylic	Saturated	2.4
Sulfuric	N	0.3
Sulfuric	0.1N	1.2
Sulfuric	0.01N	2.1
Nitric Acid	0.1N	1
Sulfurous	0.1N	1.5
Tartaric	0.1N	2
Trichloroacetic	0.1N	1.2

PH OF COMMON BASES

Bases (pH>7)	Molarity	pH
Ammonia	N	11.6
Ammonia	0.1N	11.1
Ammonia	0.01N	10.6
Barbital Sodium	0.1N	9.4
Borax	0.01N	9.2
Calcium Carbonate	Saturated	9.4
Calcium Hydroxide	Saturated	12.4
Ferrous Hydroxide	Saturated	9.5
Lime	Saturated	12.4
Magnesia	Saturated	10.5
Potassium Acetate	0.1N	9.7
Potassium Bicarbonate	0.1N	8.2
Potassium Carbonate	0.1N	11.5
Potassium Cyanide	0.1N	11.0
Potassium Hydroxide	N	14.0
Potassium Hydroxide	0.1N	13.0
Potassium Hydroxide	0.01N	12.0
Sodium Acetate	0.1N	8.9
Sodium Benzoate	0.1N	8.0
Sodium Bicarbonate	0.1N	8.4
Sodium Carbonate	0.1N	11.6
Sodium Hydroxide	N	14.0
Sodium Hydroxide	0.1N	13.0
Sodium Hydroxide	0.01N	12.0
Sodium Metasilicate	0.1N	12.6
Sodium Sesquicarbonate	0.1N	10.1
Trisodium Phosphate	0.1N	12.0



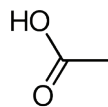
LIST OF FEATURED PRODUCTS

LIST OF FEATURED PRODUCTS

ACETIC ACID GLACIAL 99.8-100.5%, ANALAR® NORMAPUR® ACS, REAG. PH. EUR. ANALYTICAL REAGENT



Danger



VWR
CHEMICALS

Formula:	H ₃ CCOOH
MW:	60,05 g/mol
Boiling Pt:	118 °C (1013 hPa)
Melting Pt:	17 °C
Density:	1,05 g/cm ³ (20 °C)
Flash Pt:	38,5 °C
Storage Temperature:	Ambient

MDL Number:	MFCD00036152
CAS Number:	64-19-7
EINECS:	200-580-7
UN:	2789
ADR:	8 (3),II
REACH:	01-2119475328-30

Description	Pack type	Pk	Cat.No.
Acetic acid 100% Analar NP ACS/R.PE	Glass bottle SAFEBREAK	2,5 L	VWRC20104.323
Acetic acid glacial 100% Analar ACS/R.PE	Plastic bottle	2,5 L	VWRC20104.334

Specification test results

Assay	99.8 - 100.5 %
Appearance	Passes test Ph.Eur.
Dilution test	Passes test ACS
IR Spectrum	Passes test
Substances reducing dichromate	Passes test ACS
Substances reducing KMnO ₄	Passes test
Alkalinity	Max. 0.0004 meq/g
Boiling point	117 - 119 °C
Colouration	Max. 10 APHA
Solidification point	16.2 - 16.6 °C
Substances coloured by H ₂ SO ₄	Max. 150 APHA
Acetaldehyde	Max. 2 ppm
Acetic anhydride	Max. 100 ppm
Evaporation residue	Max. 5 ppm
Formate	Max. 0.05 %
Heavy metals (as Pb)	Max. 0.5 ppm
Ignition residue (SO ₄)	Max. 10 ppm
Water	Max. 0.25 %
Cl (Chloride)	Max. 0.5 ppm
NO ₃ (Nitrate)	Max. 2 ppm
PO ₄ (Phosphate)	Max. 0.5 ppm
SO ₄ (Sulphate)	Max. 1 ppm
Ag (Silver)	Max. 0.5 ppm
Al (Aluminium)	Max. 0.03 ppm
As (Arsenic)	Max. 0.01 ppm

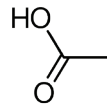
Specification test results

Ba (Barium)	Max. 0.01 ppm
Be (Beryllium)	Max. 0.01 ppm
Bi (Bismuth)	Max. 0.02 ppm
Ca (Calcium)	Max. 0.2 ppm
Cd (Cadmium)	Max. 0.02 ppm
Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.08 ppm
Cu (Copper)	Max. 0.01 ppm
Fe (Iron)	Max. 0.2 ppm
Ge (Germanium)	Max. 0.02 ppm
K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.5 ppm
Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 1 ppm
Ni (Nickel)	Max. 0.1 ppm
Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm
Ti (Titanium)	Max. 0.02 ppm
Tl (Thallium)	Max. 0.02 ppm
V (Vanadium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.05 ppm
Zr (Zirconium)	Max. 0.02 ppm
Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test

ACETIC ACID GLACIAL ≥99.7% ACS



Danger



VWR
CHEMICALS

Formula:	H ₃ CCOOH
MW:	60,05 g/mol
Boiling Pt:	118 °C (1013 hPa)
Melting Pt:	17 °C
Density:	1,05 g/cm ³ (20 °C)
Flash Pt:	38,5 °C
Storage Temperature:	Ambient

MDL Number:	MFCD00036152
CAS Number:	64-19-7
EINECS:	200-580-7
UN:	2789
ADR:	8,II
REACH:	01-2119475328-30

Description	Pack type	Pk	Cat.No.
Acetic acid glacial ACS grade	Glass bottle	2,5 L	VWRC0714-2.5L
Acetic acid glacial ACS grade	-	4 L	VWRC0714-4L

Specification test results

Acetic Anhydride	<0.01%
Chloride	≤1 ppm
Colour (APHA)	≤10
Dilution Test	Pass
Heavy Metals	≤0.5 ppm
Iron	≤0.2 ppm
Purity	≥99.7%

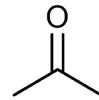
Specification test results

Residue After Evaporation	≤0.001%
Substances Reducing Dichromate	Pass
Substances Reducing Permanganate Test	Pass
Sulphate	≤1 ppm
Titration Free Base	≤0.0004 meq/g

ACETONE ≥99.5% (BY GC, CORRECTED FOR WATER CONTENT), BAKER ANALYZED® ACS, J.T. BAKER®



Danger



J.T. Baker
®

Formula:	CH ₃ COCH ₃
MW:	58,08 g/mol
Boiling Pt:	56,2 °C (1013 hPa)
Melting Pt:	-95,4 °C
Density:	0,792 g/cm ³ (20 °C)
Flash Pt:	<-20 °C (closed cup)
Storage Temperature:	Ambient

MDL Number:	MFCD00008765
CAS Number:	67-64-1
EINECS:	200-662-2
UN:	1090
ADR:	3,II
REACH:	01-2119471330-49
Merck Index:	13,00067

Description	Pack type	Pk	Cat.No.
Acetone ≥99.5% ACS	Poly pail	19 L	BAKR9006-07
Acetone ≥99.5% ACS (Aluminum BTL)	Aluminum bottle	4 L	BAKR9006-05
Acetone ≥99.5% ACS (Amber bottle)	Narrow mouth amber bottle, PVC coated	4 L	BAKR9006-33
Acetone ACS grade 99.5%	Amber glass bottle	4 L	BAKR9006-03
Acetone ACS grade 99.5%	Aluminum bottle	1 L	BAKR9006-22

Specification test results

Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Assay ((CH ₃) ₂ CO)	≥ 99.5 %
(by GC, corrected for water)	
Color (APHA)	≤ 10
Residue after Evaporation	≤ 0.001 %
Solubility in H ₂ O	Passes Test
Titration Acid (meq/g)	≤ 0.0003
Titration Base (meq/g)	≤ 0.0006
Aldehydes (as HCHO)	≤ 0.002 %
Isopropyl Alcohol (CH ₃ CHOHCH ₃) (by GC)	≤ 0.05 %

Specification test results

Methanol (CH ₃ OH) (by GC)	≤ 0.05 %
Heavy Metals (as Pb)	≤ 1 ppm
Substances Reducing Permanganate	Passes Test
Water (H ₂ O)	≤ 0.5 %
Copper (Cu)	≤ 0.1 ppm
Iron (Fe)	≤ 0.1 ppm
Nickel (Ni)	≤ 0.1 ppm
Date Received: ___/___/___	
Date Opened: ___/___/___	
Meets Reagent Specifications for testing USP/NF monographs	

AMMONIA SOLUTION 28%, ANALAR NORMAPUR® ANALYTICAL REAGENT



Danger



Synonyms:	Ammonium hydroxide
Formula:	NH ₃
MW:	35,05 g/mol
Boiling Pt:	32...37,7 °C (1013 hPa)
Melting Pt:	-60...-57,5 °C
Density:	0,898 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00066650
CAS Number:	1336-21-6
EINECS:	215-647-6
UN:	2672
ADR:	8,III

Description	Pack type	Pk	Cat.No.
Ammonia 28 % Analar Normapur	Glass bottle SAFEBREAK	1 L	VWRC21190.246
Ammonia 28 % Analar Normapur	Glass bottle	1 L	VWRC21190.292

Specification test results	
Assay	28.0 - 32.0 %
Colouration	Max. 10 APHA
Density (20/4)	0.880 - 0.910
Evaporation residue	Max. 10 ppm
Silica	Max. 10 ppm
Substances reducing KMnO ₄ (as O)	Max. 4 ppm
Cl (Chloride)	Max. 0.5 ppm
CO ₃ (Carbonate)	Max. 10 ppm
NO ₂ (Nitrite)	Max. 2 ppm
PO ₄ (Phosphate)	Max. 0.5 ppm
S (Sulphide)	Max. 0.1 ppm
SO ₄ (Sulphate)	Max. 2 ppm
Al (Aluminium)	Max. 0.03 ppm
As (Arsenic)	Max. 0.01 ppm
B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.02 ppm
Be (Beryllium)	Max. 0.01 ppm
Ca (Calcium)	Max. 0.3 ppm
Cd (Cadmium)	Max. 0.01 ppm

Specification test results	
Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm
Hg (Mercury)	Max. 0.01 ppm
K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.01 ppm
Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 2 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.01 ppm
Ti (Titanium)	Max. 0.05 ppm
V (Vanadium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.02 ppm
Zr (Zirconium)	Max. 0.05 ppm

AMMONIUM HYDROGEN DIFLUORIDE ≥95.0%, FLAKES, BAKER ANALYZED®, J.T. BAKER®



Danger



Synonyms:	Ammonium bifluoride, Ammonium hydrogen fluoride
Formula:	NH ₄ HF ₂
MW:	57,04 g/mol
Melting Pt:	124,6 °C
Density:	0,8 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00012018
CAS Number:	1341-49-7
EINECS:	215-676-4
UN:	1727
ADR:	8,II

Description	Pack type	Pk	Cat.No.
Ammonium bifluoride flake	Plastic bottle for solids	2,5 kg	BAKR0619-05
Ammonium bifluoride flake	-	12 kg	BAKR0619-07

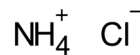
Specification test results	
For laboratory, research or manufacturing use	
Assay (NH ₄ F HF)	≥ 95.0 %
Insoluble Matter	≤ 0.02 %
pH of 5% Solution at 25°C	4.0 - 6.5

Specification test results	
Heavy Metals (as Pb)	≤ 0.002 %
Moisture (as H ₂ O)	≤ 0.4 %
Product may contain black specks that are indigenous to product	

AMMONIUM CHLORIDE ≥99.5% ACS



Warning



Formula:	NH ₄ Cl
MW:	53,49 g/mol
Melting Pt:	335 °C
Density:	1,5256 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011420
CAS Number:	12125-02-9
EINECS:	235-186-4
UN:	2789
Merck Index:	13,00510

Description	Pack type	Pk	Cat.No.
Ammonium chloride ACS grade	HDPE bottle	2,5 kg	VWRC0621-2.5KG
Ammonium chloride ACS grade	HDPE bottle	500 g	VWRC0621-500G

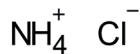
Specification test results	
Calcium	<0.001%
Heavy metals (as Pb)	≤0.0005%
Insolubles	≤0.005%
Iron	≤0.0002%
Magnesium	≤0.0005%

Specification test results	
pH (5%, water) @25 °C	4.5 - 5.5
Phosphate	≤0.0002%
Purity	≥99.5%
Residue on ignition	≤0.01%
Sulphate	≤0.002%

AMMONIUM CHLORIDE ≥99.5% (BY ARGENTOMETRIC TITRATION), CRYSTALS, AR® ACS, MACRON FINE CHEMICALS™



Warning



Formula:	NH ₄ Cl
MW:	53,49 g/mol
Melting Pt:	335 °C
Density:	1,53 g/cm ³
Storage Temperature:	Ambient

MDL Number:	MFCD00011420
CAS Number:	12125-02-9
EINECS:	235-186-4

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Ammonium chloride crystal	Fiber drum	12 kg	MACR3384-20

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (NH ₄ Cl) (by Ag titrn)	≥99.5 %
ACS - Calcium (Ca)	≤0.001 %
ACS - Insoluble Matter	≤0.005 %
ACS - Iron (Fe)	≤2 ppm
ACS - Magnesium (Mg)	≤5 ppm

Specification test results	
ACS - pH of 5% Solution at 25°C	4.5 - 5.5
ACS - Phosphate (PO ₄)	≤2 ppm
ACS - Residue after Ignition	≤0.01 %
ACS - Sulfate (SO ₄)	≤0.002 %
ACS - Appearance (white crystals)	Passes Test
Heavy Metals (as Pb)	≤2 ppm
Nitrate (NO ₃)	≤5 ppm

LIST OF FEATURED PRODUCTS

AMMONIUM HYDROGEN DIFLUORIDE ≥98.5%, ANALAR NORMAPUR® ANALYTICAL REAGENT



Danger



Synonyms:	Ammonium bifluoride, Ammonium hydrogen fluoride
Formula:	NH ₄ HF ₂
MW:	57,04 g/mol
Melting Pt:	127 °C
Density:	0,8 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00012018
CAS Number:	1341-49-7
EINECS:	1727
UN:	2672
ADR:	8,II
Merck Index:	13,00498

Description	Pack type	Pk	Cat.No.
Ammonium hydrogen difluoride analar NP	Plastic bottle for solids	500 g	VWRC81000.260

Specification test results	
Assay	Min. 98.5 %
Heavy metals (as Pb)	Max. 0.03 %
Ignition residue (SO ₄)	Max. 0.02 %
Insolubility in water	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm

Specification test results	
SO ₄ (Sulphate)	Max. 50 ppm
Ca (Calcium)	Max. 10 ppm
Fe (Iron)	Max. 80 ppm

AMMONIA SOLUTION 28%, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Synonyms:	Ammonium hydroxide
Formula:	NH ₃
MW:	35,05 g/mol
Boiling Pt:	32...37,7 °C (1013 hPa)
Melting Pt:	-60...-57,5 °C
Density:	0,88...0,91 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00066650
CAS Number:	1336-21-6
EINECS:	215-647-6
UN:	2672
ADR:	8,III

Description	Pack type	Pk	Cat.No.
Ammonium hydroxide, 28-30%	Glass bottle	2,5 L	BAKR6005.2500

Specification test results	
Exceeds ACS Specifications	
Assay (as NH ₃) (acidimetric)	28.0 - 30.0 %
Appearance	passes test
Carbon Dioxide (CO ₂)	max. 0.002 %
Color (APHA)	max. 5
Chloride (Cl)	max. 0.5 ppm
Residue after Ignition	max. 0.001 %
Specific Gravity at 60°/60°F	0.896 - 0.902
Substances Reducing KMnO ₄	passes test
Trace Impurities (in ppm)	
Arsenic and Antimony (as As)	max. 3
Aluminium (Al)	max. 0.2
Boron (B)	max. 0.05
Barium (Ba)	max. 0.3

Specification test results	
Chromium (Cr)	max. 0.1
Copper (Cu)	max. 0.1
Iron (Fe)	max. 0.1
Magnesium (Mg)	max. 0.2
Manganese (Mn)	max. 0.1
Nickel (Ni)	max. 0.1
Lead (Pb)	max. 0.2
Tin (Sn)	max. 0.1
Titanium (Ti)	max. 0.1
Zinc (Zn)	max. 0.1
Heavy Metals (as Pb)	max. 0.5
Nitrate (NO ₃)	max. 2
Phosphate (PO ₄)	max. 0.4
Sulfate (SO ₄)	max. 2

BUFFERS, PH REFERENCE STANDARDS, BDH®



Description	Pack type	Pk	Cat.No.
BDH reference standard buffer yellow	Poly Bottle	500 ml	BDHB5046-500ML

BROMINE 0.1 N, BAKER ANALYZED® VOLUMETRIC SOLUTION, J.T. BAKER®



Warning



Formula:	Br ₂	MDL Number:	MFCD00010896
MW:	159,81 g/mol	CAS Number:	7726-95-6

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Bromine (ide-ate) 0.1 n vol solution	Poly Bottle	1 L	BAKR5625-02

Specification test results	
For laboratory, research or manufacturing use	
Normality	0.095 - 0.105
Standardization at 25°C traceable to NIST Standard Reference Material	

BROMINE WATER (SATURATED SOLUTION OF BROMINE IN WATER) REAG. PH. EUR. 1012402



Danger



Formula:	Br ₂	MDL Number:	MFCD00010896
MW:	159,81 g/mol	CAS Number:	7726-95-6
UN:	1744	ADR:	8 (6.1),1

Description	Pack type	Pk	Cat.No.
Bromine water R reag ph Eur	-	100 ml	VWRC85716.180

BUFFERS, PH REFERENCE STANDARDS, BDH®



Description	Pack type	Pk	Cat.No.
Buffer ph 10.00, ±0.02, blue reference STD	Poly Bottle	500 ml	BDHB5072-500ML
Buffer ph 4.00, ±0.01, red	Poly Bottle	500 ml	BDHB5018-500ML

**BUFFER SOLUTIONS, COLOUR CODED,
BAKER ANALYZED®, JT BAKER®**


Description	Pack type	Pk	Cat.No.
Buffer solution borate pH10, blue	Plastic bottle	500 ml	BAKR5655-01
Buffer solution borate pH10, blue	Cubetainer	4 L	BAKR5655-03
Buffer solution borate pH10, blue	-	20 L	BAKR5655-07
Buffer solution pH4	-	10 L	BAKR5676.9010

BUFFER SOLUTIONS, 20 °C AVS TITRINORM


Description	Pack type	Pk	Cat.No.
Buffer solution pH4, red, AVS titrinorm	Plastic bottle	500 ml	VWRC32044.268
Buffer solution pH4, red, AVS titrinorm	Bag-in-box (Cubitainer)	5 L	VWRC32044.372
Buffer solution pH4, red, dosing bottle	Dosing bottle (plastic)	1 L	VWRC32044.290
Buffer solution pH7, green, AVS titrinorm	Plastic bottle	500 ml	VWRC32045.262
Buffer solution pH7, green, AVS titrinorm	Bag-in-box (cubitainer)	5 L	VWRC32045.375
Buffer solution pH7, green, dosing bottle	Dosing bottle (plastic)	1 L	VWRC32045.290

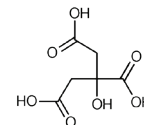
**BUFFER SOLUTIONS, COLOUR CODED,
BAKER ANALYZED®, JT BAKER®**


Description	Pack type	Pk	Cat.No.
Buffer solution pH9	-	1 L	BAKR5659.1000
Buffer solution phosphate pH7, yellow	-	20 L	BAKR5656-07

CALCIUM PHOSPHATE TRIBASIC. TRIBASIC 1 * 100 G


Description	Pk	Cat.No.
Calcium phosphate tribasic. Tribasic	1 * 100 g	BAKR5659.1000

CITRIC ACID, ANHYDROUS ≥99.5% ACS

Danger


Formula:	HO ₂ C(COOH) (CH ₂ COOH) ₂
MW:	192,13 g/mol
Boiling Pt:	310 °C (1013 hPa)
Melting Pt:	127 °C
Density:	1,665 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011669
CAS Number:	77-92-9
EINECS:	201-069-1
REACH:	01-2119457026-42-0000
Merck Index:	13,02350

Description	Pack type	Pk	Cat.No.
Citric acid ACS grade	HDPE bottle	3 kg	VWRC0529-3KG
Citric acid ACS grade	HDPE bottle	1 kg	VWRC0529-500G

Specification test results	
Carbonisable Substances (H ₂ SO ₄)	Pass
Chloride	≤0.001%
Insolubles	≤0.005%
Iron	≤0.0003%
Lead	≤0.0002%
Oxalate Test	Pass

Specification test results	
Phosphate	≤0.001%
Purity	≥99.5%
Residue on Ignition	≤0.02%
Sulphur Compounds (as SO ₄)	≤0.002%

**DI-SODIUM TETRABORATE, ANHYDROUS ≥98%,
ANALAR NORMAPUR®**

Danger


Synonyms:	Borax, Sodium tetraborate
Formula:	Na ₂ B ₄ O ₇
MW:	201,22 g/mol
Boiling Pt:	1575 °C (1013 hPa)
Melting Pt:	742 °C
Density:	2,38 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00081185
CAS Number:	1330-43-4
EINECS:	215-540-4
REACH:	01-2119490790-32

Description	Pack type	Pk	Cat.No.
Di-sodium tetraborate anhydrous	Plastic container	25 kg	01-2119490790-32

Specification test results	
Assay (acidimetric)	min. 98 %
Insoluble in water	max. 0,05 %
Chlorides (Cl)	max. 0,05 %
Phosphates (as PO ₄)	max. 0,005 %
Sulfates (SO ₄)	max. 0,05 %
Calcium (Ca)	max. 0,02 %
Copper (Cu)	max. 0,005 %

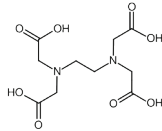
Specification test results	
Heavy metals (as Pb)	max. 0,005 %
Iron (Fe)	max. 0,005 %
Lead (Pb)	max. 0,005 %
Magnesium (Mg)	max. 0,02 %
Nickel (Ni)	max. 0,005 %
Potassium (K)	max. 0,05 %

LIST OF FEATURED PRODUCTS

EDTA (ETHYLENEDIAMINE TETRAACETIC ACID) 99.4-100.6%, POWDER, BAKER ANALYZED® ACS, J.T. BAKER®



Warning



Synonyms:	Ethylenediaminetetraacetic acid, Idranal® II, Kestrand® A, Edetic acid, Ethylenedinitri-lotetra-acetic acid
Formula:	C ₁₀ H ₁₆ N ₂ O ₈
MW:	292,25 g/mol
Boiling Pt:	614 °C (1013 hPa)
Melting Pt:	220 °C
Density:	0,86 g/cm ³ (20 °C)
Flash Pt:	>100 °C
Storage Temperature:	Ambient

MDL Number:	MFCD00003541
CAS Number:	60-00-4
EINECS:	200-449-4
REACH:	01-2119486399-18
Merck Index:	13,03546

Description	Pack type	Pk	Cat.No.
EDTA 99.4-100.6% Powder ACS (poly)	White poly bottle, blue tamper evident cap	500 g	BAKR8991-01
EDTA Powder (ACS)	-	25 lb	BAKR8991-R

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (C ₁₀ H ₁₆ N ₂ O ₈)	99.4 - 100.6 %
ACS - Insoluble in Dilute NH ₄ OH	≤ 0.005 %
ACS - Residue after Ignition	≤ 0.2 %
ACS - Nitrilotriacetic Acid	≤ 0.1 %

Specification test results	
ACS - Calcium (Ca)	≤ 0.001 %
ACS - Heavy Metals (as Pb)	≤ 0.001 %
ACS - Iron (Fe)	≤ 0.005 %
Trace Impurities - Magnesium (Mg)	≤ 5 ppm

HYDROCHLORIC ACID 36,5 - 38,0%, AR® ACS, MACRON FINE CHEMICALS™



Danger



Formula:	HCl
MW:	36,46 g/mol
Boiling Pt:	110 °C (1013 hPa)
Melting Pt:	-30 °C
Density:	1,18 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011324
CAS Number:	7647-01-0
EINECS:	231-595-7
UN:	1789
ADR:	8,II

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Hydrochloric acid 36.5-38% ACS HDPE poly	HDPE pressure bottom poly bottle	500 ml	MACRH613-05

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (HCl)	36.5 - 38.0 %
Appearance	Passes Test
ACS - Color (APHA)	≤ 10
ACS - Ammonium (NH ₄)	≤ 3 ppm
ACS - Arsenic (As)	≤ 0.005 ppm
ACS - Bromide (Br)	≤ 0.005 %
ACS - Extractable Organic Substances	≤ 5 ppm
ACS - Free Chlorine (as Cl)	≤ 1 ppm
ACS - Heavy Metals (as Pb)	≤ 0.1 ppm
ACS - Residue after Ignition	≤ 4 ppm
ACS - Sulfate (SO ₄)	≤ 0.5 ppm
ACS - Sulfite (SO ₃)	≤ 0.8 ppm

Specification test results	
Trace Impurities - Aluminum (Al)	≤ 0.300 ppm
Trace Impurities - Boron (B)	≤ 0.100 ppm
Trace Impurities - Chromium (Cr)	≤ 0.200 ppm
Trace Impurities - Copper (Cu)	≤ 0.10 ppm
Trace Impurities - Gold (Au)	≤ 0.100 ppm
Trace Impurities - Iron (Fe)	≤ 0.1 ppm
Trace Impurities - Lead (Pb)	≤ 0.100 ppm
Trace Impurities - Magnesium (Mg)	≤ 0.300 ppm
Trace Impurities - Manganese (Mn)	≤ 0.300 ppm
Trace Impurities - Nickel (Ni)	≤ 0.1 ppm
Trace Impurities - Potassium (K)	≤ 0.300 ppm
Trace Impurities - Tin (Sn)	≤ 0.300 ppm
Trace Impurities - Titanium (Ti)	≤ 0.300 ppm
Trace Impurities - Zinc (Zn)	≤ 0.100 ppm

HYDROCHLORIC ACID 36,5 - 38,0%, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	HCl
MW:	36,46 g/mol
Boiling Pt:	110 °C (1013 hPa)
Melting Pt:	-35 °C
Density:	1,18 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011324
CAS Number:	7647-01-0
EINECS:	231-595-7
UN:	1789
ADR:	8,II

Management of Change (MOC) category = R

Description	Pack type	Pk	Cat.No.
Hydrochloric acid 36.5-38.0%	Clear glass bottle	500 ml	BAKR9535-01
Hydrochloric acid 36.5-38.0% ACS	-	380 lb	BAKR9535-A1
Hydrochloric acid ACS grade 36.5-38.0%	Clear glass bottle	2.5 L	BAKR9535-03
Hydrochloric acid ACS grade 36.5-38.0%	Clear glass bottle	2.5 L	BAKR9535-33

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Store below 25°C	
Appearance	Passes Test
Assay (as HCl) (by acid-base titrm)	36.5 - 38.0 %
Color (APHA)	≤ 10
Extractable Organic Substances	≤ 5 ppm
Free Chlorine (as Cl ₂)	≤ 1 ppm
Residue after Ignition	≤ 3 ppm
Specific Gravity at 60°/60°F	1.185 - 1.192
Bromide (Br)	≤ 0.005 %
Phosphate (PO ₄)	≤ 1 ppm
Sulfate (SO ₄)	≤ 0.5 ppm
Sulfite (SO ₃)	≤ 0.8 ppm
Ammonium (NH ₄)	≤ 3 ppm
Trace Impurities - Aluminum (Al)	≤ 100.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb
Trace Impurities - Boron (B)	≤ 50 ppb

Specification test results	
Trace Impurities - Calcium (Ca)	≤ 200.0 ppb
Trace Impurities - Chromium (Cr)	≤ 100.0 ppb
Trace Impurities - Copper (Cu)	≤ 100.0 ppb
Trace Impurities - Gold (Au)	≤ 100.0 ppb
Heavy Metals (as Pb)	≤ 100 ppb
Trace Impurities - Iron (Fe)	≤ 100.0 ppb
Trace Impurities - Lead (Pb)	≤ 50 ppb
Trace Impurities - Magnesium (Mg)	≤ 300.0 ppb
Trace Impurities - Manganese (Mn)	≤ 300.0 ppb
Trace Impurities - Mercury (Hg)	≤ 5.0 ppb
Trace Impurities - Nickel (Ni)	≤ 100.0 ppb
Trace Impurities - Potassium (K)	≤ 300.0 ppb
Trace Impurities - Sodium (Na)	≤ 300 ppb
Trace Impurities - Tin (Sn)	≤ 300.0 ppb
Trace Impurities - Titanium (Ti)	≤ 300.0 ppb
Trace Impurities - Zinc (Zn)	≤ 100.0 ppb
Meets Reagent Specifications for testing USP/NF monographs	

HYDROFLUORIC ACID 40%, ANALAR NORMAPUR® ANALYTICAL REAGENT



Danger



Formula:	HF
MW:	20,01 g/mol
Boiling Pt:	112 °C (1013 hPa)
Melting Pt:	-44 °C
Density:	1,18 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011346
CAS Number:	7664-39-3
EINECS:	231-634-8
UN:	1790
ADR:	8 (6.1),II

Description	Pack type	Pk	Cat.No.
Hydrofluoric acid 40 % analar normapur	Plastic bottle	1 L	VWRC20307.290

Specification test results	
Assay	39.0 - 41.0 %
Heavy metals (as Pb)	Max. 0.5 ppm
SiF ₆ (Hexafluorosilicate)	Max. 50 ppm
Cl (Chloride)	Max. 5 ppm
PO ₄ (Phosphate)	Max. 1 ppm
SO ₄ + SO ₃ (as SO ₄)	Max. 5 ppm
Ag (Silver)	Max. 0.02 ppm
Al (Aluminium)	Max. 0.05 ppm
As (Arsenic)	Max. 0.05 ppm
Ba (Barium)	Max. 0.1 ppm
Be (Beryllium)	Max. 0.02 ppm
Bi (Bismuth)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm

Specification test results	
Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.2 ppm
Ge (Germanium)	Max. 0.05 ppm
Li (Lithium)	Max. 0.02 ppm
Mg (Magnesium)	Max. 0.2 ppm
Mn (Manganese)	Max. 0.05 ppm
Mo (Molybdenum)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm
Na (Sodium)	Max. 0.2 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm
Sr (Strontium)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.1 ppm
Tl (Thallium)	Max. 0.05 ppm
V (Vanadium)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.05 ppm

HYDROFLUORIC ACID 47%, NORMATOM® FOR TRACE METAL ANALYSIS



Danger



Formula:	HF
MW:	20,01 g/mol
Storage Temperature:	Ambient

MDL Number:	MFCD00011346
CAS Number:	7664-39-3
EINECS:	231-634-8
UN:	1790
ADR:	8 (6.1),II

Description	Pack type	Pk	Cat.No.
Hydrofluoric acid 47 % normatom for trac	Plastic bottle	500 ml	VWRC83873.260

Specification test results	
Assay	47 - 51 %
Colouration	Max. 10 APHA
Cl (Chloride)	Max. 4 ppm
SiF ₆ (Hexafluorosilicate)	Min. 20 ppm
Total P (Phosphorus)	Max. 0.05 ppm
Total S (Sulphur)	Max. 0.1 ppm
Ag (Silver)	Max. 0.5 ppb
Al (Aluminium)	Max. 1 ppb
As (Arsenic)	Max. 0.5 ppb
Au (Gold)	Max. 0.20 ppb
B (Boron)	Max. 1 ppb
Ba (Barium)	Max. 0.1 ppb
Be (Beryllium)	Max. 0.1 ppb
Bi (Bismuth)	Max. 0.1 ppb
Ca (Calcium)	Max. 1 ppb
Cd (Cadmium)	Max. 0.1 ppb
Ce (Cerium)	Max. 0.1 ppb
Co (Cobalt)	Max. 0.1 ppb
Cr (Chromium)	Max. 1 ppb
Cs (Cesium)	Max. 0.1 ppb
Cu (Copper)	Max. 0.5 ppb
Dy (Dysprosium)	Max. 0.1 ppb
Er (Erbium)	Max. 0.1 ppb
Eu (Europium)	Max. 0.1 ppb
Fe (Iron)	Max. 1 ppb
Ga (Gallium)	Max. 0.1 ppb
Gd (Gadolinium)	Max. 0.1 ppb
Ge (Germanium)	Max. 0.1 ppb
Hf (Hafnium)	Max. 0.1 ppb
Hg (Mercury)	Max. 1 ppb
Ho (Holmium)	Max. 0.1 ppb
In (Indium)	Max. 0.1 ppb
K (Potassium)	Max. 1 ppb
La (Lanthanum)	Max. 0.1 ppb
Li (Lithium)	Max. 0.1 ppb

Specification test results	
Lu (Lutetium)	Max. 0.1 ppb
Mg (Magnesium)	Max. 1 ppb
Mn (Manganese)	Max. 0.1 ppb
Mo (Molybdenum)	Max. 0.1 ppb
Na (Sodium)	Max. 1 ppb
Nb (Niobium)	Max. 0.1 ppb
Nd (Neodymium)	Max. 0.1 ppb
Ni (Nickel)	Max. 0.5 ppb
Pb (Lead)	Max. 0.1 ppb
Pd (Palladium)	Max. 0.20 ppb
Pr (Praseodymium)	Max. 0.1 ppb
Pt (Platinum)	Max. 0.20 ppb
Rb (Rubidium)	Max. 0.1 ppb
Re (Rhenium)	Max. 0.1 ppb
Rh (Rhodium)	Max. 0.100 ppb
Ru (Ruthenium)	Max. 0.100 ppb
Sb (Antimony)	Max. 0.20 ppb
Sc (Scandium)	Max. 0.100 ppb
Se (Selenium)	Max. 1 ppb
Sm (Samarium)	Max. 0.100 ppb
Sn (Tin)	Max. 0.500 ppb
Sr (Strontium)	Max. 0.100 ppb
Tb (Terbium)	Max. 0.100 ppb
Te (Tellurium)	Max. 0.100 ppb
Th (Thorium)	Max. 0.100 ppb
Ti (Titanium)	Max. 1 ppb
Tl (Thallium)	Max. 0.100 ppb
Tm (Thulium)	Max. 0.100 ppb
U (Uranium)	Max. 0.100 ppb
V (Vanadium)	Max. 0.100 ppb
W (Tungsten)	Max. 0.500 ppb
Y (Yttrium)	Max. 0.100 ppb
Yb (Ytterbium)	Max. 0.100 ppb
Zn (Zinc)	Max. 1 ppb
Zr (Zirconium)	Max. 0.100 ppb

HYDROFLUORIC ACID 48%, ANALAR NORMAPUR® ANALYTICAL REAGENT



Danger



Formula:	HF
MW:	20,01 g/mol
Storage Temperature:	Ambient

MDL Number:	MFCD00011346
CAS Number:	7664-39-3
EINECS:	231-634-8
UN:	1790
ADR:	8 (6.1),II

Description	Pack type	Pk	Cat.No.
Hydrofluoric acid 48 % analar normapur	Plastic bottle	1 L	VWRC83873.260

Specification test results	
Assay	Min. 48 %
Colouration	Max. 10 APHA
SiF ₆ (Hexafluorosilicate)	Max. 100 ppm
PO ₄ (Phosphate)	Max. 0.5 ppm
SO ₄ + SO ₃ (as SO ₄)	Max. 5 ppm
Ag (Silver)	Max. 0.02 ppm
Al (Aluminium)	Max. 0.1 ppm
As (Arsenic)	Max. 0.05 ppm
Ba (Barium)	Max. 0.1 ppm
Bi (Bismuth)	Max. 0.1 ppm
Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.01 ppm
Cl (Chloride)	Max. 5 ppm
Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm

Specification test results	
Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.3 ppm
K (Potassium)	Max. 0.1 ppm
Li (Lithium)	Max. 0.02 ppm
Mg (Magnesium)	Max. 0.2 ppm
Mn (Manganese)	Max. 0.05 ppm
Mo (Molybdenum)	Max. 0.05 ppm
Na (Sodium)	Max. 0.2 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm
Sr (Strontium)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.1 ppm
V (Vanadium)	Max. 0.05 ppm
Zn (Zinc)	Max. 0.1 ppm

HYDROFLUORIC ACID 48,0 - 51,0% (BY ACIDIMETRY), BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	HF
MW:	20,01 g/mol
Storage Temperature:	Ambient

MDL Number:	MFCD00011346
CAS Number:	7664-39-3
EINECS:	231-634-8
UN:	1790
ADR:	8,II

Description	Pack type	Pk	Cat.No.
Hydrofluoric acid 48%	Polyethylene bottle	500 ml	BAKR9560-01

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Assay (HF) (by acidimetry)	48.0 - 51.0 %
Fluosilicic Acid (H ₂ SiF ₆)	≤0.01 %
Residue after Ignition	≤5 ppm
Chloride (Cl)	≤5 ppm
Nitrate (NO ₃)	≤5 ppm
Phosphate (PO ₄)	≤1 ppm
Sulfate and Sulfite (as SO ₄)	≤5 ppm

Specification test results	
Trace Impurities - Arsenic and Antimony (as As)	≤50.0 ppb
Trace Impurities - Copper (Cu)	≤50 ppb
Heavy Metals (as Pb)	≤500.0 ppb
Trace Impurities - Iron (Fe)	≤500.0 ppb
Trace Impurities - Lead (Pb)	≤100 ppb
Trace Impurities - Nickel (Ni)	≤50 ppb
Meets Reagent Specifications for testing USP/NF monographs	

LIST OF FEATURED PRODUCTS

HYDROFLUORIC ACID 48%, AR® ACS, MACRON FINE CHEMICALS™



Danger



Formula:	HF
MW:	20,01 g/mol
Storage Temperature:	Ambient

MDL Number:	MFCD00011346
CAS Number:	7664-39-3
EINECS:	231-634-8
UN:	1790
ADR:	8,II

Description	Pack type	Pk	Cat.No.
Hydrofluoric acid 48% AR	-	2,5 L	MACR2640-18

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (HF) (by acidimetry)	48.8 - 49.2 %
ACS - Fluosilicic Acid (H ₂ SiF ₆) (in %)	≤0.01 %
ACS - Residue after Ignition	≤5 ppm
Trace Impurities - Aluminum (Al)	≤0.050 ppm
Trace Impurities - Arsenic (As)	≤0.050 ppm
Trace Impurities - Boron (B)	≤0.050 ppm
Trace Impurities - Calcium (Ca)	≤0.300 ppm
Chloride (Cl)	≤5 ppm
Trace Impurities - Chromium (Cr)	≤0.010 ppm
Trace Impurities - Copper (Cu)	≤0.050 ppm
Trace Impurities - Gold (Au)	≤0.300 ppm
Trace Impurities - Heavy Metals	≤0.5 ppm
Trace Impurities - Iron (Fe)	≤0.2 ppm

Specification test results	
Trace Impurities - Lead (Pb)	≤0.100 ppm
Trace Impurities - Magnesium (Mg)	≤0.20 ppm
Trace Impurities - Manganese (Mn)	≤0.200 ppm
Trace Impurities - Nickel (Ni)	≤0.1 ppm
Phosphate (PO ₄)	≤1 ppm
Trace Impurities - Potassium (K)	≤0.300 ppm
Trace Impurities - Sodium (Na)	≤0.300 ppm
Sulfate and Sulfite (as SO ₄)	≤5 ppm
Trace Impurities - Tin (Sn)	≤0.300 ppm
Trace Impurities - Titanium (Ti)	≤0.300 ppm
Trace Impurities - Zinc (Zn)	≤0.300 ppm
Appearance (colorless, corrosive, fuming solution)	
Meets Reagent Specifications for testing USP/NF monographs	

HYDROFLUORIC ACID 48 - 51%, BAKER INSTRA-ANALYZED® FOR TRACE METAL ANALYSIS, J.T. BAKER®



Danger



Formula:	HF
MW:	20,01 g/mol
Storage Temperature:	Ambient

MDL Number:	MFCD00011346
CAS Number:	7664-39-3
EINECS:	231-634-8
UN:	1790
ADR:	8,II

Description	Pack type	Pk	Cat.No.
Hydrofluoric acid 48-51%	PE bottle	500 ml	BAKR9563-01

Specification test results	
For laboratory, research or manufacturing use	
Assay (HF) (by acidimetry)	48.0 - 51.0 %
Color (APHA)	≤10
Residue after Ignition	≤5 ppm
Fluosilicic Acid (H ₂ SiF ₆)	≤0.010 %
Chloride (Cl)	≤5 ppm
Nitrate (NO ₃)	≤3 ppm
Phosphate (PO ₄)	≤1 ppm
Sulfate and Sulfite (as SO ₄)	≤5 ppm
Trace Impurities - Aluminum (Al)	≤50.0 ppb
Arsenic and Antimony (as As)	≤30.0 ppb
Trace Impurities - Barium (Ba)	≤50.0 ppb
Trace Impurities - Beryllium (Be)	≤20.0 ppb
Trace Impurities - Bismuth (Bi)	≤100.0 ppb
Trace Impurities - Boron (B)	≤50 ppb
Trace Impurities - Cadmium (Cd)	≤10.0 ppb
Trace Impurities - Calcium (Ca)	≤50.0 ppb
Trace Impurities - Chromium (Cr)	≤10.0 ppb
Trace Impurities - Cobalt (Co)	≤5.0 ppb
Trace Impurities - Copper (Cu)	≤5.0 ppb
Trace Impurities - Gallium (Ga)	≤20.0 ppb
Trace Impurities - Germanium (Ge)	≤50.0 ppb
Trace Impurities - Gold (Au)	≤10.0 ppb

Specification test results	
Heavy Metals (as Pb)	≤100 ppb
Trace Impurities - Iron (Fe)	≤100.0 ppb
Trace Impurities - Lead (Pb)	≤20.0 ppb
Trace Impurities - Lithium (Li)	≤20.0 ppb
Trace Impurities - Magnesium (Mg)	≤50.0 ppb
Trace Impurities - Manganese (Mn)	≤50.0 ppb
Trace Impurities - Mercury (Hg)	≤10.0 ppb
Trace Impurities - Molybdenum (Mo)	≤50.0 ppb
Trace Impurities - Nickel (Ni)	≤10.0 ppb
Trace Impurities - Potassium (K)	≤100 ppb
Trace Impurities - Silver (Ag)	≤20.0 ppb
Trace Impurities - Sodium (Na)	≤200.0 ppb
Trace Impurities - Strontium (Sr)	≤20.0 ppb
Trace Impurities - Tantalum (Ta)	≤100.0 ppb
Trace Impurities - Tin (Sn)	≤50 ppb
Trace Impurities - Titanium (Ti)	≤50.0 ppb
Trace Impurities - Vanadium (V)	≤50.0 ppb
Trace Impurities - Zinc (Zn)	≤20.0 ppb
Trace Impurities - Zirconium (Zr)	≤20.0 ppb
Meets A.C.S. Specifications. Meets Reagent Specifications for testing	
USP/NF monographs.	

HYDROXYLAMMONIUM SULPHATE ≥99.0%, J.T. BAKER®



Danger



Synonyms:	Hydroxylamine sulphate, Bis (hydroxylammonium) sulphate, Hydroxylamine sulphate (2:1)
Formula:	H ₃ N ₂ O ₂ S
MW:	164,14 g/mol
Melting Pt:	170 °C
Density:	1,1 g/cm ³ (20 °C)

MDL Number:	MFCD00044869
CAS Number:	10039-54-0
EINECS:	233-118-8
UN:	2865
ADR:	8,III

Management of Change (MOC) category = N

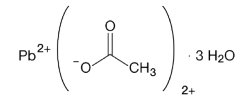
Description	Pack type	Pk	Cat.No.
Hydroxylamine sulfate ≥99%	Poly bottle	500 g	BAKRN646-07

Specification test results	
For laboratory, research or manufacturing use	
Assay ((NH ₂ OH) ₂ ·H ₂ SO ₄)	≥99.0 %

LEAD(II) ACETATE TRIHYDRATE ≥99%, GRANULAR, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	(H ₃ CCOO) ₂ Pb·3H ₂ O
MW:	379,34 g/mol
Boiling Pt:	280 °C (1013 hPa)
Melting Pt:	75 °C
Density:	2,55 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00150023
CAS Number:	6080-56-4
EINECS:	206-104-4
UN:	1616
ADR:	6,1,III
Merck Index:	13,05415

Granular. Lot analysis on label.

Description	Pack type	Pk	Cat.No.
Lead acetate trihydrate granular	Poly Bottle	500 g	BAKR2271-01
Lead acetate trihydrate granular	-	110 lb	BAKR2271-08

Specification test results	
For laboratory, research or manufacturing use	
Meets ACS Reagent Chemical Requirements	
Assay ((CH ₃ COO) ₂ Pb·3H ₂ O) (by EDTA titrn)	99.0 - 103.0 %
Insoluble Matter	≤0.01 %
pH of 5% Solution at 25°C	5.5 - 6.5
Nitrate and Nitrite (as NO ₃)	≤0.005 %
Calcium (Ca)	≤0.005 %

Specification test results	
Copper (Cu)	≤0.002 %
Trace Impurities - Iron (Fe)	≤0.001 %
Potassium (K)	≤0.005 %
Sodium (Na)	≤0.010 %
Chloride (Cl)	≤5 ppm
Meets Reagent Specifications for testing USP/NF monographs	

LEAD(II) NITRATE ≥99.0% (BY EDTA TITRATION), CRYSTALS, BAKER ANALYZED® ACS, J.T. BAKER®

Synonyms:	Lead dinitrate	MDL Number:	MFCD00011153
Formula:	Pb(NO ₃) ₂	CAS Number:	10099-74-8
MW:	331,21 g/mol	EINECS:	233-245-9
Melting Pt:	450...470 °C	UN:	1469
Density:	4,53 g/cm ³ (20 °C)	ADR:	5.1 (6.1),II
Storage Temperature:	Ambient		

Description	Pack type	Pk	Cat.No.
Lead dinitrate ≥99.0% (Edta) crystal ACS	Bottle, wide mouth amber glass	125 g	BAKR2322-04

Specification test results	Specification test results
For laboratory, research or manufacturing use	Copper (Cu) ≤ 0.002 %
Meets ACS Reagent Chemical Requirements	Trace Impurities - Iron (Fe) ≤ 0.001 %
Assay (Pb(NO ₃) ₂) (by EDTA titrn) ≥ 99.0 %	Potassium (K) ≤ 0.005 %
Insoluble Matter ≤ 0.005 %	Sodium (Na) ≤ 0.02 %
Chloride (Cl) ≤ 0.001 %	Meets Reagent Specifications for testing USP/NF monographs
Calcium (Ca) ≤ 0.005 %	

LEAD(II) NITRATE ≥99.0% (BY EDTA TITRATION), CRYSTALS, BAKER ANALYZED® ACS, J.T. BAKER®

Synonyms:	Lead monoxide, Lithargite	MDL Number:	MFCD00011164
Formula:	PbO	CAS Number:	1317-36-8
MW:	223,21 g/mol	EINECS:	215-267-0
Boiling Pt:	1470 °C (1013 hPa)	UN:	2291
Melting Pt:	888 °C	ADR:	6.1,III
Density:	9,5 g/cm ³ (20 °C)	Merck Index:	12,05433

Description	Pack type	Pk	Cat.No.
Lead oxide (litharge) ACS	Poly bottle	2,5 kg	BAKR2322-04

Specification test results	Specification test results
For laboratory, research or manufacturing use	ACS - Sodium (Na) ≤ 0.02 %
ACS - Assay (PbO) ≥ 99.0 %	Trace Impurities - Iron (Fe) ≤ 5 ppm
ACS - Chloride (Cl) ≤ 0.002 %	Trace Impurities - Silver (Ag) ≤ 5.000 ppm
ACS - Nitrate (NO ₃) ≤ 0.01 %	Average particle diameter, μm (APD), for Information only
ACS - Calcium (Ca) ≤ 0.005 %	Specific surface area, m ² /g, for Information only
ACS - Copper (Cu) ≤ 0.005 %	Bulk Density (g/cc), For Information Only
ACS - Potassium (K) ≤ 0.005 %	Mesh (Wet Screen Analysis) - On U.S. No. 325 Sieve, for information only
ACS - Silicon (Si), For Information Only	

LITHIUM CHLORIDE ≥99.0% (BY ARGENTOMETRIC TITRATION), GRANULAR, BAKER ANALYZED® ACS, J.T. BAKER®

Formula:	LiCl	MDL Number:	MFCD00011078
MW:	42,39 g/mol	CAS Number:	7447-41-8
Storage Temperature:	Ambient		

Description	Pack type	Pk	Cat.No.
Lithium chloride gran ACS	2500 cc Wide Mouth Amber Glass Bottle	2,5 kg	BAKR2370-05

Specification test results	Specification test results
For laboratory, research or manufacturing use	ACS - Barium (Ba) ≤ 0.002 %
Meets ACS Reagent Chemical Requirements	ACS - Heavy Metals (as Pb) ≤ 0.002 %
ACS - Assay (LiCl) (by Ag titrn) ≥ 99.0 %	ACS - Iron (Fe) ≤ 0.001 %
ACS - Insoluble Matter ≤ 0.01 %	ACS - Calcium (Ca) ≤ 0.01 %
ACS - Loss on Drying ≤ 1.0 %	ACS - Potassium (K) ≤ 0.01 %
ACS - Titration Base (meq/g) ≤ 0.008	ACS - Sodium (Na) ≤ 0.20 %
ACS - Sulfate (SO ₄) ≤ 0.01 %	

4-METHYL-2-PENTANONE ≥98.5% (BY GC, CORRECTED FOR WATER CONTENT), BAKER ANALYZED® ACS, J.T. BAKER®

Synonyms:	Methyl Isobutyl Ketone, Isobutyl Methyl Ketone, Methyl iso-Butyl Ketone	MDL Number:	MFCD00008938
Formula:	(CH ₃) ₂ CHCH ₂ COCH ₃	CAS Number:	108-10-1
MW:	100,16 g/mol	EINECS:	203-550-1
Boiling Pt:	117,4 °C (1013 hPa)	UN:	1245
Melting Pt:	-84 °C	ADR:	3,II
Density:	0,801 g/cm ³ (20 °C)	Merck Index:	13,05227
Flash Pt:	16 °C		
Storage Temperature:	Ambient		

Description	Pack type	Pk	Cat.No.
Meth ISO-butyl ketone	Narrow mouth amber glass bottle	4 L	BAKR9322-03

Specification test results	Specification test results
For laboratory, research or manufacturing use	Water (H ₂ O)(by Karl Fischer titrn) ≤0.1 %
Meets ACS Reagent Chemical Requirements	Product Information (not specifications):
Assay (CH ₃ COCH ₂ CH(CH ₃) ₂) ≥98.5 %	Appearance (Clear, colorless liquid)
(by GC, corrected for water)	Boiling Point (typical)..... 115.5 °C.
Color (APHA) ≤15	Density (g/mL) at 25 °C (typical)..... 0.796
Residue after Evaporation ≤0.0050 %	Meets Reagent Specifications for testing USP/NF monographs
Titration Acid (meq/g) ≤0.002	

LIST OF FEATURED PRODUCTS

METHANOL ≥99.8% (BY GC), BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Synonyms:	Hydroxy methane, Methyl alcohol, Carbinol, Wood alcohol
Formula:	CH ₃ OH
MW:	32,04 g/mol
Boiling Pt:	64,6 °C (1013 hPa)
Melting Pt:	-98 °C
Density:	0,7918 g/cm ³ (20 °C)
Flash Pt:	11 °C (closed cup)
Storage Temperature:	Ambient

MDL Number:	MFCD00004595
CAS Number:	67-56-1
EINECS:	200-659-6
UN:	1230
ADR:	3,II
REACH:	01-2119433307-44
Merck Index:	13,05984

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Methanol ≥99.8%	Pressure bottom poly bottle	4 L	BAKR9070-05
Methanol ≥99.8%	-	4 L	BAKR9070-68
Methanol ≥99.8% ACS (HDPE)	HDPE plastic container, blue	19 L	BAKR9070-07
Methanol analyzed ACS reagent	Glass bottle	4 L	BAKR9070-03

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (CH ₃ OH) (by GC)	≥ 99.8 %
Substances Darkened by H ₂ SO ₄	Passes Test
Substances Reducing KMnO ₄	Passes Test
Solubility in H ₂ O	Passes Test
Color (APHA)	≤ 10
Water (by KF, coulometric)	≤ 0.1 %
Residue after Evaporation	≤ 0.001 %
Carbonyl Compounds - Acetaldehyde	≤ 0.001 %
Carbonyl Compounds - Acetone	≤ 0.001 %

Specification test results	
Carbonyl Compounds - Formaldehyde	≤ 0.001 %
Titration Acid (µeq/g)	≤ 0.3
Titration Base (µeq/g)	≤ 0.2
Heavy Metals (as Pb)	≤ 0.5 ppm
Trace Impurities - Copper (Cu)	≤ 0.10 ppm
Trace Impurities - Iron (Fe)	≤ 0.1 ppm
Trace Impurities - Nickel (Ni)	≤ 0.1 ppm
Date Received: ___/___/___	
Date Opened: ___/___/___	
Meets Reagent Specifications for testing USP/NF monographs	

METHANOL ≥99.8%, ANALAR NORMAPUR® ACS, REAG. PH. EUR. ANALYTICAL REAGENT



Danger



Synonyms:	Hydroxy methane, Methyl alcohol, Carbinol, Wood alcohol
Formula:	CH ₃ OH
MW:	32,04 g/mol
Boiling Pt:	64,6 °C (1013 hPa)
Melting Pt:	-98 °C
Density:	0,7918 g/cm ³ (20 °C)
Flash Pt:	11 °C (closed cup)
Storage Temperature:	Ambient

MDL Number:	MFCD00004595
CAS Number:	67-56-1
EINECS:	200-659-6
UN:	1230
ADR:	3 (6.1),II
REACH:	01-2119433307-44
Merck Index:	13,05984

Description	Pack type	Pk	Cat.No.
Methanol Analar Normapur ACS/R.PH.EUR.	Glass bottle	1 L	VWRC20847.295
Methanol Analar Normapur ACS/R.PH.EUR.	Glass bottle	2,5 L	VWRC20847.320

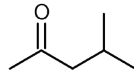
Specification test results	
Appearance	Clear colourless liquid
Assay (on anhydrous substance)	Min. 99.8 %
IR Spectrum	Passes test
Solubility in water	Passes test ACS
Acidity	Max. 0.0002 meq/g
Alkalinity	Max. 0.00006 meq/g
Boiling point	64 - 65 °C
Colouration	Max. 10 APHA
Density (20/4)	0.791 - 0.792
Density (20/20)	0.791 - 0.793
Substances coloured by H ₂ SO ₄	Max. 10 APHA
Acetone + aldehydes (as CH ₃ COCH ₃)	Max. 10 ppm
Acetone	Max. 5 ppm
Acetaldehyde	Max. 5 ppm
Ethanol	Max. 0.1 %
Evaporation residue	Max. 10 ppm
Formaldehyde	Max. 1 ppm
Substances reducing KMnO ₄ (as O)	Max. 2 ppm
Water	Max. 0.05 %
Cl (Chloride)	Max. 0.5 ppm
Al (Aluminium)	Max. 0.1 ppm
B (Boron)	Max. 0.08 ppm
Ba (Barium)	Max. 0.05 ppm

Specification test results	
Ca (Calcium)	Max. 0.8 ppm
Cd (Cadmium)	Max. 0.01 ppm
Co (Cobalt)	Max. 0.01 ppm
Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm
Fe (Iron)	Max. 0.1 ppm
K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm
Na (Sodium)	Max. 0.7 ppm
Ni (Nickel)	Max. 0.01 ppm
Pb (Lead)	Max. 0.01 ppm
Sn (Tin)	Max. 0.1 ppm
Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.2 ppm
Absorbance (225 nm)	Max. 0.17
Transmittance (210 nm)	Min. 20 %
Transmittance (220 nm)	Min. 50 %
Transmittance (225 nm)	Min. 68 %
Transmittance (250 nm)	Min. 95 %
Conforms to ACS	Passes test
Conforms Ph.Eur. R 1053200	Passes test
Conforms Ph.Eur. R1 1053201	Passes test
Conforms Ph.Eur. R2 1053202	Passes test

4-METHYL-2-PENTANONE ≥99.0%, ANALAR NORMAPUR® ACS, REAG. PH. EUR. ANALYTICAL REAGENT



Danger



VWR
CHEMICALS

Synonyms:	Methyl Isobutyl Ketone , Isobutyl Methyl Ketone , Methyl iso-Butyl Ketone
Formula:	(CH ₃) ₂ CHCH ₂ COCH ₃
MW:	100,16 g/mol
Boiling Pt:	117,4 °C (1013 hPa)
Melting Pt:	-84 °C
Density:	0,801 g/cm ³ (20 °C)
Flash Pt:	16 °C
Storage Temperature:	Ambient

MDL Number:	MFCD0008938
CAS Number:	108-10-1
EINECS:	203-550-1
UN:	1245
ADR:	3,II
Merck Index:	13,05227
Merck Index:	13,05984

Description	Pack type	Pk	Cat.No.
Methyl-ISO-Butyl Ketone Analar ACS/R.PE	Glass bottle	1 L	VWRC25652.295

Specification test results	
Assay	Min. 99.0 %
IR Spectrum	Passes test
Acidity	Max. 0.002 meq/g
Boiling point	115 - 117 °C
Colouration	Max. 10 APHA
Density (20/4)	0.799 - 0.803
Density (20/20)	0.800 - 0.804
Non-volatile residue	Max. 10 ppm
Substances reducing KMnO ₄ (as O)	Max. 3 ppm
Water	Max. 0.1 %
Al (Aluminium)	Max. 0.5 ppm
B (Boron)	Max. 0.02 ppm
Ba (Barium)	Max. 0.1 ppm

Specification test results	
Ca (Calcium)	Max. 0.5 ppm
Cd (Cadmium)	Max. 0.05 ppm
Co (Cobalt)	Max. 0.02 ppm
Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.02 ppm
Fe (Iron)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.1 ppm
Mn (Manganese)	Max. 0.02 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.1 ppm
Sn (Tin)	Max. 0.1 ppm
Zn (Zinc)	Max. 0.1 ppm
Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test

NITRIC ACID 69,0 - 70,0%, BAKER ANALYZED® ACS, J.T. BAKER®



Danger

J.T.Baker®

Formula:	HNO ₃
MW:	63,01 g/mol
Boiling Pt:	120,5 °C (1013 hPa)
Melting Pt:	-42 °C
Density:	1,4 g/cm ³ (20 °C)
Flash Pt:	11 °C (closed cup)
Storage Temperature:	Ambient

MDL Number:	MFCD0001349
CAS Number:	7697-37-2
EINECS:	231-714-2
UN:	2031
ADR:	8,II
Merck Index:	13,06608

Description	Pack type	Pk	Cat.No.
Nitric acid 69.0 - 70.0% ACS	Mall clear PVC coated glass bottle	500 ml	BAKR9601-00

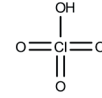
Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Appearance	Passes Test
Assay (HNO ₃)	69.0 - 70.0 %
Arsenic (As)	≤0.010 ppm
Color (APHA)	≤10
Residue after Ignition	≤4 ppm
Chloride (Cl)	≤0.1 ppm
Phosphate (PO ₄)	≤0.20 ppm
Sulfate (SO ₄)	≤0.5 ppm
Trace Impurities - Aluminum (Al)	≤100.0 ppb
Arsenic and Antimony (as As)	≤4.0 ppb
Trace Impurities - Boron (B)	≤50 ppb
Trace Impurities - Cadmium (Cd), for information only	

Specification test results	
Trace Impurities - Calcium (Ca)	≤200.0 ppb
Trace Impurities - Chromium (Cr)	≤100.0 ppb
Trace Impurities - Copper (Cu)	≤50 ppb
Trace Impurities - Gold (Au)	≤200.0 ppb
Heavy Metals (as Pb)	≤100 ppb
Trace Impurities - Iron (Fe)	≤100.0 ppb
Trace Impurities - Lead (Pb)	≤100 ppb
Trace Impurities - Magnesium (Mg)	≤100.0 ppb
Trace Impurities - Manganese (Mn)	≤100.0 ppb
Trace Impurities - Mercury (Hg)	≤5.0 ppb
Trace Impurities - Nickel (Ni)	≤50 ppb
Trace Impurities - Potassium (K)	≤300.0 ppb
Trace Impurities - Tin (Sn)	≤200.0 ppb
Trace Impurities - Titanium (Ti)	≤200.0 ppb
Trace Impurities - Zinc (Zn)	≤200.0 ppb

PERCHLORIC ACID 69 - 72%, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



J.T.Baker®

Formula:	HClO ₄
MW:	100,46 g/mol
Boiling Pt:	160...181 °C (1013 hPa)
Melting Pt:	-112,2 °C
Density:	1,53...1,768 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011325
CAS Number:	7601-90-3
EINECS:	231-512-4
UN:	1873
ADR:	5,1,I

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Perchloric acid 69-72 % ACS	Glass bottle	2,5 L	BAKR9652-33
Perchloric acid 69-72 %	Clear glass bottle	500 ml	BAKR9652-01
Perchloric acid 69-72 %	Clear glass bottle	2,5 L	BAKR9652-04

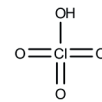
Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
ACS - Assay (HClO ₄)	69.0 - 72.0 %
ACS - Color (APHA)	≤ 10
ACS - Residue after Ignition	≤ 0.003 %
ACS - Chloride (Cl)	≤ 0.001 %

Specification test results	
ACS - Nitrogen Compounds (as N)	≤ 0.001 %
ACS - Sulfate (SO ₄)	≤ 0.001 %
ACS - Silicate and Phosphate (as SiO ₂)	≤ 5 ppm
ACS - Heavy Metals (by ICP-OES)	≤ 1 ppm
Trace Impurities - Iron (Fe)	≤ 1 ppm

PERCHLORIC ACID 69 - 72%, BAKER INSTRA-ANALYZED® FOR TRACE METAL ANALYSIS, J.T. BAKER®



Danger



J.T.Baker®

Formula:	HClO ₄
MW:	100,46 g/mol
Boiling Pt:	160...181 °C (1013 hPa)
Melting Pt:	-112,2 °C
Density:	1,53...1,768 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011325
CAS Number:	7601-90-3
EINECS:	231-512-4
UN:	1873
ADR:	5,1,I

Description	Pack type	Pk	Cat.No.
Perchloric acid 70-72%	Poly coated glass bottle	500 ml	BAKR9653-00

Specification test results	
For laboratory, research or manufacturing use	
ACS - Assay (HClO ₄)	69.0 - 72.0 %
ACS - Color (APHA)	≤10
ACS - Residue after Ignition	≤10 ppm
Chloride (Cl)	≤10 ppm
Nitrogen Compounds (as N)	≤10 ppm
ACS - Silicate and Phosphate (as SiO ₂)	≤5 ppm
Sulfate (SO ₄)	≤10 ppm
Trace Impurities - Aluminum (Al)	≤0.050 ppm
Trace Impurities - Barium (Ba)	≤0.100 ppm
Trace Impurities - Cadmium (Cd)	≤0.005 ppm
Trace Impurities - Calcium (Ca)	≤1 ppm
Trace Impurities - Chromium (Cr)	≤0.050 ppm
Trace Impurities - Cobalt (Co)	≤0.005 ppm
Trace Impurities - Copper (Cu)	≤0.050 ppm

Specification test results	
Heavy Metals (as Pb)	≤0.1 ppm
Trace Impurities - Iron (Fe)	≤0.050 ppm
Trace Impurities - Lead (Pb)	≤0.010 ppm
Trace Impurities - Lithium (Li)	≤0.100 ppm
Trace Impurities - Magnesium (Mg)	≤0.050 ppm
Trace Impurities - Manganese (Mn)	≤0.005 ppm
Trace Impurities - Mercury (Hg)	≤0.005 ppm
Trace Impurities - Nickel (Ni)	≤0.005 ppm
Trace Impurities - Potassium (K)	≤0.500 ppm
Trace Impurities - Silicon (Si)	≤0.100 ppm
Trace Impurities - Silver (Ag)	≤0.005 ppm
Trace Impurities - Sodium (Na)	≤1.000 ppm
Trace Impurities - Strontium (Sr)	≤0.020 ppm
Trace Impurities - Tin (Sn)	≤0.010 ppm
Trace Impurities - Zinc (Zn)	≤0.050 ppm

LIST OF FEATURED PRODUCTS

ORTHOPHOSPHORIC ACID ≥85.0% (BY ACIDIMETRY), AR® ACS, MACRON FINE CHEMICALS™



Danger



Synonyms:	Phosphoric acid
Formula:	H ₃ PO ₄
MW:	98 g/mol
Melting Pt:	28 °C
Density:	1,71...1,87 g/cm ³ (25 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011340
CAS Number:	7664-38-2
EINECS:	231-633-2
UN:	1805
ADR:	8,III

ACS—Reagents meeting the requirements of the American Chemical Society Committee on Analytical Reagents. The specifications listed in this catalog are based on the ACS Reagent Chemicals Tenth Edition.

Description	Pack type	Pk	Cat.No.
Phosphoric acid 85% ACS	Poly bottle	4 L	MACR2796-45
Phosphoric acid 85% AR (ACS) Macron F	Poly bottle	2,5 L	MACR2796-16

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (as H ₃ PO ₄) (by acidimetry)	≥85.0 %
ACS - Antimony (Sb)	≤15.000 ppm
ACS - Arsenic (As)	≤1.000 ppm
ACS - Calcium (Ca)	≤0.002 %
ACS - Chloride (Cl)	≤3 ppm
ACS - Color (APHA)	≤10
ACS - Heavy Metals (as Pb)	≤10 ppm
ACS - Insoluble Matter	≤0.001 %

Specification test results	
ACS - Iron (Fe)	≤6 ppm
ACS - Magnesium (Mg)	≤0.002 %
ACS - Manganese (Mn)	≤0.500 ppm
ACS - Nitrate (NO ₃)	≤5 ppm
ACS - Potassium (K)	≤6.000 ppm
ACS - Reducing Substances (mL)	≤1.0
ACS - Sodium (Na)	≤10.000 ppm
ACS - Sulfate (SO ₄)	≤0.001 %
ACS - Volatile Acids (as CH ₃ COOH)	≤0.001 %
Appearance (clear, colorless liquid)	

POTASSIUM CHLORATE ≥99.0% (BY KMNO₄ TITRATION), CRYSTALS, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	KClO ₃
MW:	122,55 g/mol
Boiling Pt:	400 °C (1013 hPa)
Melting Pt:	356 °C
Density:	2,34 g/cm ³ (20 °C)
Flash Pt:	11 °C (closed cup)
Storage Temperature:	Ambient

MDL Number:	MFCD00011361
CAS Number:	3811-04-9
EINECS:	223-289-7
UN:	1485
ADR:	5,1,II
Merck Index:	12,07782

Description	Pack type	Pk	Cat.No.
Potassium chlorate crystal	-	12 kg	BAKR3024-07

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (KClO ₃) (by KMnO ₄ titrim)	≥99.0 %
Insoluble Matter	≤0.005 %
pH of 5% Solution at 25°C, for information only	
Bromate (BrO ₃)	≤0.01 %
Calcium (Ca)	≤0.002 %
Chloride (Cl)	≤0.001 %

Specification test results	
ACS - Magnesium (Mg)	≤0.002 %
Sulfate (SO ₄)	Passes Test
Sodium (Na)	≤0.010 %
Trace Impurities - ACS - Heavy Metals (as Pb)	≤5 ppm
Trace Impurities - Iron (Fe)	≤2.0 ppm
Meets Reagent Specifications for testing USP/NF monographs	

POTASSIUM CHLORATE ≥99.0% (BY KMNO₄ TITRATION), GRANULAR, AR® ACS, MACRON FINE CHEMICALS™



Danger



Formula:	KClO ₃
MW:	122,55 g/mol
Density:	2,30 g/cm ³

MDL Number:	MFCD00011361
CAS Number:	3811-04-9
UN:	1485
ADR:	5,1,II

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Potassium chlorate gran	Glass bottle	500 g	MACR6834-04

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (KClO ₃) (by KMnO ₄ titrim)	≥99.0 %
ACS - Bromate (BrO ₃)	≤0.015 %
ACS - Calcium (Ca)	≤0.002 %
ACS - Chloride (Cl)	≤0.001 %

Specification test results	
ACS - Heavy Metals (as Pb)	≤5 ppm
ACS - Insoluble Matter	≤0.005 %
ACS - Iron (Fe)	≤3 ppm
ACS - Magnesium (Mg)	≤0.002 %
ACS - Sodium (Na)	≤0.01 %
ACS - Sulfate (SO ₄)	Passes Test

POTASSIUM IODIDE ≥99.0%, AR® ACS, FREE-FLOWING, MACRON FINE CHEMICALS™



Danger



Formula:	KI
MW:	166 g/mol
Boiling Pt:	1330 °C (1013 hPa)
Melting Pt:	681 °C
Density:	3,13 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011405
CAS Number:	7681-11-0
EINECS:	231-659-4
Merck Index:	12,07809

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Potassium iodide ≥99.0% AR ACS Poly B	Poly bottle	125 g	MACR1123-0

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (KI)	≥99.0 %
ACS - Appearance (white, crystalline granules)	Passes Test
ACS - Barium (Ba)	≤0.002 %
ACS - Calcium (Ca)	≤0.002 %
ACS - Chloride and Bromide (as Cl)	≤0.01 %
ACS - Heavy Metals (as Pb)	≤0.0005 %
ACS - Insoluble Matter	≤0.005 %

Specification test results	
ACS - Iodate (IO ₃)	≤3 ppm
ACS - Iron (Fe)	≤0.0003 %
ACS - Loss on Drying at 150°C	≤0.2 %
ACS - Magnesium (Mg)	≤0.001 %
ACS - pH of 5% Solution at 25°C	6.0 - 9.2
ACS - Phosphate (PO ₄)	≤0.001 %
ACS - Sodium (Na)	≤0.005 %
ACS - Sulfate (SO ₄)	≤0.005 %
Free Alkali, for information only	

POTASSIUM IODIDE ≥99.0%, GRANULAR, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	KI
MW:	166 g/mol
Boiling Pt:	1330 °C (1013 hPa)
Density:	3,10 g/cm ³
Storage Temperature:	Ambient

MDL Number:	MFCD00011405
CAS Number:	7681-11-0
EINECS:	231-659-4

Description	Pack type	Pk	Cat.No.
Potassium iodide gran	Wide mouth amber glass bottle	2,5 kg	BAKR3162-05
Potassium iodide granular	Wide mouth amber glass bottle, black tamper evident cap	500 g	BAKR3162-01
Potassium iodide granular	Pail, HDPE flowmor package	12 kg	BAKR3162-07

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (KI)	≥99.0 %
Insoluble Matter	≤0.005 %
Loss on Drying at 150°C	≤0.2 %
pH of 5% Solution at 25°C	6.0 - 9.2
Chloride and Bromide (as Cl)	≤0.01 %
Phosphate (PO ₄)	≤0.001 %
Sulfate (SO ₄)	≤0.005 %
Barium (Ba)	≤0.002 %

Specification test results	
Calcium (Ca)	≤0.002 %
Magnesium (Mg)	≤0.001 %
Sodium (Na)	≤0.005 %
Iodate (IO ₃)	≤3 ppm
Trace Impurities - ACS - Heavy Metals (as Pb)	≤5 ppm
Trace Impurities - Iron (Fe)	≤2.0 ppm
Meets Reagent Specifications for testing USP/NF monographs	

POTASSIUM NITRATE ≥99.0%, CRYSTALS, BAKER ANALYZED® ACS, J.T. BAKER®



Warning



Formula:	KNO ₃
MW:	101,1 g/mol
Melting Pt:	334 °C
Density:	2,109 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011405
CAS Number:	7681-11-0
EINECS:	231-659-4

Description	Pack type	Pk	Cat.No.
Potassium iodide gran	Wide mouth amber glass bottle	2,5 kg	BAKR3162-05
Potassium iodide granular	Wide mouth amber glass bottle, black tamper evident cap	500 g	BAKR3162-01
Potassium iodide granular	Pail, HDPE flowmor package	12 kg	BAKR3162-07

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (KI)	≥99.0 %
Insoluble Matter	≤0.005 %
Loss on Drying at 150°C	≤0.2 %
pH of 5% Solution at 25°C	6.0 - 9.2
Chloride and Bromide (as Cl)	≤0.01 %
Phosphate (PO ₄)	≤0.001 %
Sulfate (SO ₄)	≤0.005 %
Barium (Ba)	≤0.002 %

Specification test results	
Calcium (Ca)	≤0.002 %
Magnesium (Mg)	≤0.001 %
Sodium (Na)	≤0.005 %
Iodate (IO ₃)	≤3 ppm
Trace Impurities - ACS - Heavy Metals (as Pb)	≤5 ppm
Trace Impurities - Iron (Fe)	≤2.0 ppm
Meets Reagent Specifications for testing USP/NF monographs	

POTASSIUM NITRATE ≥99.0%, CRYSTALS, BAKER ANALYZED® ACS, J.T. BAKER®



Warning



Formula:	KNO ₃
MW:	101,1 g/mol
Melting Pt:	334 °C
Density:	2,109 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011409
CAS Number:	7757-79-1
EINECS:	231-818-8
UN:	1486
ADR:	5.1,III
REACH:	01-2119488224-35
Merck Index:	12,07815

Description	Pack type	Pk	Cat.No.
Potassium nitrate ≥99.0% crystals ACS	Wide mouth amber glass bottle, black tamper evident cap	500 g	BAKR3190-01
Potassium nitrate ≥99.0% crystals ACS	White poly bottle, blue tamper evident cap	2,5 kg	BAKR3190-05
Potassium nitrate crystal	HDPE flowmor pail	12 kg	BAKR3190-07

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (KNO ₃)	≥99.0 %
Insoluble Matter	≤0.005 %
pH of 5% Solution at 25°C	4.5 - 8.5
Chloride (Cl)	≤0.002 %
ACS- Nitrite (NO ₂)	≤0.001 %
ACS - Sulfate (SO ₄)	≤0.003 %
Calcium (Ca)	≤0.005 %

Specification test results	
ACS - Magnesium (Mg)	≤0.002 %
Sodium (Na)	≤0.005 %
Iodate (IO ₃)	≤5 ppm
Phosphate (PO ₄)	≤3 ppm
Trace Impurities - ACS - Heavy Metals (as Pb)	≤5 ppm
Trace Impurities - Iron (Fe)	≤2.0 ppm
Meets Reagent Specifications for testing USP/NF monographs	

POTASSIUM NITRATE ≥99.0%, CRYSTALS, BAKER ANALYZED® ACS, J.T. BAKER®



Warning



Formula:	KNO ₃
MW:	101,1 g/mol
Melting Pt:	334 °C
Density:	2,109 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011409
CAS Number:	7757-79-1
EINECS:	231-818-8
UN:	1486
ADR:	5.1,III
REACH:	01-2119488224-35
Merck Index:	12,07815

Description	Pack type	Pk	Cat.No.
Potassium nitrate crystal	Flowmor fib/foil drum	20 kg	BAKR3190-80

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (KNO ₃)	≥99.0 %
Insoluble Matter	≤0.005 %
pH of 5% Solution at 25°C	4.5 - 8.5
Chloride (Cl)	≤0.002 %
ACS- Nitrite (NO ₂)	≤0.001 %
ACS - Sulfate (SO ₄)	≤0.003 %
Calcium (Ca)	≤0.005 %

Specification test results	
ACS - Magnesium (Mg)	≤0.002 %
Sodium (Na)	≤0.005 %
Iodate (IO ₃)	≤5 ppm
Phosphate (PO ₄)	≤3 ppm
Trace Impurities - ACS - Heavy Metals (as Pb)	≤5 ppm
Trace Impurities - Iron (Fe)	≤2.0 ppm
Meets Reagent Specifications for testing USP/NF monographs	

LIST OF FEATURED PRODUCTS

POTASSIUM PERMANGANATE ≥99.0%, BAKER ANALYZED® ACS FOR THE DETERMINATION OF MERCURY, J.T. BAKER®



Danger



Formula:	KMnO ₄
MW:	158,03 g/mol
Melting Pt:	>240 °C
Density:	2,7 g/cm ³ (20 °C)
Flash Pt:	11 °C (closed cup)
Storage Temperature:	Ambient

MDL Number:	MFCD00011364
CAS Number:	7722-64-7
EINECS:	231-760-3
UN:	1490
ADR:	5.1,II
Merck Index:	12,07824

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Potassium permanganate	Wide mouth amber glass bottle, black tamper evident cap	500 g	BAKR3227-01
Potassium permanganate ACS	White poly bottle, blue tamper evident cap	2,5 kg	BAKR3227-05

Specification test results

Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
ACS - Assay (KMnO ₄) ≥99.0 %	
ACS - Insoluble Matter	≤0.2 %

POTASSIUM PEROXODISULPHATE ≥99.0%, AR® ACS, MACRON FINE CHEMICALS™



Danger



Synonyms:	Dipotassium peroxodisulphate, Peroxydisulphuric acid dipotassium salt, Potassium persulphate, di-Potassium peroxodisulphate
Formula:	K ₂ S ₂ O ₈
MW:	270,32 g/mol
Melting Pt:	100 °C
Density:	2,477 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011386
CAS Number:	7727-21-1
EINECS:	231-781-8
UN:	1492
ADR:	5.1,III
Merck Index:	12,07825

Description	Pack type	Pk	Cat.No.
Potassium persulfate	Wide mouth amber glass bottle	500 g	MACR7076-12
Potassium persulfate ≥99.0% (Fibre drum)	Fibre drum	12 kg	MACR7076-20

Specification test results

Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (K ₂ S ₂ O ₈)	≥99.0 %
ACS - Chlorine Compounds (as Cl)	≤0.001 %

Specification test results

ACS - Heavy Metals (as Pb)	≤0.001 %
ACS - Insoluble Matter	≤0.005 %
ACS - Iron (Fe)	≤0.0005 %
ACS - Manganese (Mn)	≤0.0002 %

BUFFERS, PH REFERENCE STANDARDS, BDH®

Buffers are available as colourless and coloured solutions.

Certifications: ISO 17025 and traceable to NIST.

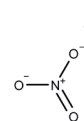


Description	Pack type	Pk	Cat.No.
Reference standard buffer, red, pH4.00	Poly Bottle	4 L	BDHB5020-4L

SILVER NITRATE 99.8-100.5%, ANALAR NORMAPUR® REAG. PH. EUR., ACS



Danger



Formula:	AgNO ₃
MW:	169,87 g/mol
Boiling Pt:	444 °C (1013 hPa)
Melting Pt:	210 °C
Density:	4,35 g/cm ³ (20 °C)
Storage Temperature:	Ambient
MDL Number:	MFCD00003414

CAS Number:	7681-11-0
EINECS:	231-659-4
Merck Index:	12,07809

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Silver nitrate ACS grade	Plastic bottle for solids	250 g	VWRC21572.235
Silver Nitrate Analar Normapur R.PE/ACS	Plastic bottle for solids	25 g	VWRC21572.133
Silver Nitrate Analar Normapur R.PE/ACS	Plastic bottle for solids	100 g	VWRC21572.188
Silver Nitrate Analar Normapur R.PE/ACS	Plastic bottle for solids	1 kg	VWRC21572.292

Specification test results

Assay	99.8 - 100.5 %
Clarity of solution	Passes test ACS
Free acid	Passes test ACS
Identification (Ag)	Passes test Ph.Eur.
Identification (NO ₃)	Passes test Ph.Eur.
Solution S	Passes test Ph.Eur.
Solution in water	Passes test
Appearance of solution	Passes test Ph.Eur.
Acidity or alkalinity	Passes test Ph.Eur.
Aluminium, lead, copper and bismuth	Passes test Ph.Eur.
Foreign salts	≤ 0.3 %
Insolubility in water	≤ 50 ppm
Not precipitated by HCl (as SO ₄)	≤ 100 ppm

Specification test results

Cl (Chloride)	≤ 5 ppm
SO ₄ (Sulphate)	≤ 20 ppm
Ca (Calcium)	≤ 10 ppm
Cd (Cadmium)	≤ 1 ppm
Cu (Copper)	≤ 2 ppm
Fe (Iron)	≤ 2 ppm
K (Potassium)	≤ 50 ppm
Mg (Magnesium)	≤ 5 ppm
Mn (Manganese)	≤ 5 ppm
Ni (Nickel)	≤ 5 ppm
Pb (Lead)	≤ 10 ppm
Zn (Zinc)	≤ 1 ppm
Conforms to Reag. Ph.Eur./ACS	Passes test

SILVER SULPHATE ≥98.0%, POWDER, BAKER ANALYZED® ACS, J.T. BAKER®

Danger


Synonyms:	Disilver sulphate
Formula:	Ag_2SO_4
MW:	311,8 g/mol
Boiling Pt:	1085 °C (1013 hPa)
Melting Pt:	655 °C
Density:	5,45 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003407
CAS Number:	10294-26-5
EINECS:	233-653-7
Merck Index:	12,08676

Description	Pack type	Pk	Cat.No.
Silver Sulfate Powder	Glass bottle	125 g	BAKR3443-04

Specification test results

Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
ACS - Assay (Ag_2SO_4)	≥98.0 %
ACS - Insoluble Matter and Silver Chloride	≤0.02 %

Specification test results

ACS - Nitrate (NO_3)	≤0.001 %
ACS - Substances Not Precipitated by HCl	≤0.03 %
ACS - Iron (Fe)	≤0.001 %

SILVER SULPHATE ≥98.0%, POWDER, BAKER ANALYZED® ACS, J.T. BAKER®

Danger


Synonyms:	Disilver sulphate
Formula:	Ag_2SO_4
MW:	311,8 g/mol
Boiling Pt:	1085 °C (1013 hPa)
Melting Pt:	655 °C
Density:	5,45 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003407
CAS Number:	10294-26-5
EINECS:	233-653-7
Merck Index:	12,08676

Description	Pack type	Pk	Cat.No.
Silversulfate 99.5	-	100 g	BAKR1183.0100

Specification test results

Exceeds ACS Specifications	
Assay	min. 99.5 %
Iron (Fe)	max. 0.001 %

Specification test results

Insoluble Matter and Silver Chloride	max. 0.02 %
Nitrate (NO_3)	max. 0.001 %
Substances not Precipitated by HCl	max. 0.03 %

SODIUM TETRAHYDROBORATE ≥98%, GPR RECTAPUR®

Danger


Synonyms:	Sodium tetrahydridoborate , Sodium borohydride
Formula:	Ag_2SO_4
MW:	311,8 g/mol
Boiling Pt:	1085 °C (1013 hPa)
Melting Pt:	655 °C
Density:	5,45 g/cm ³ (20 °C)
Storage Temperature:	Ambient

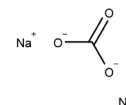
MDL Number:	MFCD00003518
CAS Number:	16940-66-2
EINECS:	241-004-4
UN:	1426
ADR:	4.3,I
Merck Index:	12,08735

Description	Pack type	Pk	Cat.No.
Sodium borohydride (98%)	Plastic bottle for solids	25 g	VWRC27885.134
Sodium borohydride GPR rectapur	Plastic bottle for solids	100 g	VWRC27885.180

Specification test results

Assay (Hypochlorite)	Min. 98.0 %
Identification (ICP-OES)	Passes test

SODIUM CARBONATE, ANHYDROUS ≥99.5% ACS

Danger


Formula:	Na_2CO_3
MW:	105,99 g/mol
Boiling Pt:	1600 °C (1013 hPa)
Melting Pt:	854 °C
Density:	2,53 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003494
CAS Number:	497-19-8
EINECS:	207-838-8
REACH:	01-2119485498-19
Merck Index:	14,08596

Description	Pack type	Pk	Cat.No.
Sodium carbonate anhydrous ACS grade	HDPE bottle	1 kg	VWRC0585-1KG

Specification test results

Calcium	<0.03%
Chloride	≤0.001%
Heavy metals (as Pb)	≤0.0005%
Insolubles	≤0.01%
Iron	≤0.0005%
Loss on heating	≤1%

Specification test results

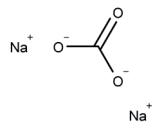
Magnesium	≤0.005%
Phosphate	≤0.001%
Potassium	≤0.005%
Purity	≥99.5%
Silica	≤0.005%
Sulphur compounds	≤0.003%

LIST OF FEATURED PRODUCTS

SODIUM CARBONATE, ANHYDROUS ≥99.5% (BY ACIDIMETRY ON ANHYDROUS SUBSTANCE), GRANULAR, AR® ACS, MACRON FINE CHEMICALS™



Warning



Formula:	Na ₂ CO ₃
MW:	105,99 g/mol
Melting Pt:	851 °C
Density:	2,53 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003494
CAS Number:	497-19-8
EINECS:	207-838-8
REACH:	01-2119485498-19

Description	Pack type	Pk	Cat.No.
Sodium carbonate anhydrous granular	Mall polystormor poly/plastic bottle	500 g	MACR7527-04
Sodium carbonate anhydrous granular	-	12 kg	MACR7527-20

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (Na ₂ CO ₃) (dried basis) (by acidimetry)	≥99.5 %
ACS - Insoluble Matter	≤0.01 %
ACS - Loss on Heating at 285°C	≤1.0 %
ACS - Chloride (Cl)	≤0.001 %
ACS - Phosphate (PO ₄)	≤0.001 %

Specification test results	
ACS - Silica (SiO ₂)	≤0.005 %
ACS - Sulfur Compounds (as SO ₄)	≤0.003 %
ACS - Heavy Metals (as Pb)	≤5 ppm
ACS - Iron (Fe)	≤5 ppm
ACS - Calcium (Ca)	≤0.03 %
ACS - Magnesium (Mg)	≤0.005 %
ACS - Potassium (K)	≤0.005 %

SODIUM CHLORIDE, CRYSTALS, BAKER ANALYZED®, J.T. BAKER®



Formula:	NaCl
MW:	58,44 g/mol
Boiling Pt:	1413 °C (1013 hPa)
Melting Pt:	801 °C
Density:	2,16 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003477
CAS Number:	7647-14-5
EINECS:	231-598-3
Merck Index:	14,08599

Description	Pack type	Pk	Cat.No.
Sodium chloride	Plastic bottle for solids	500 g	BAKR0278.0500

Specification test results	
Assay	min. 99.5 %
Barium (Ba)	max. 0.002 %
Bromide (Br)	max. 0.01 %
Calcium (Ca)	max. 0.002 %
Iodide (I)	max. 0.005 %
Potassium (K)	max. 0.01 %
Magnesium (Mg)	max. 0.001 %
Insoluble Matter	max. 0.005 %

Specification test results	
pH of 5% Solution at 25°C	5.0 - 8.0
Sulfate (SO ₄)	max. 0.01 %
Trace Impurities (in ppm)	
Arsenic (As)	max. 3
Iron (Fe)	max. 3
Heavy Metals (as Pb)	max. 5
Phosphate (PO ₄)	max. 5

SODIUM CYANIDE ≥95%, GRANULAR, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	CNNa
MW:	49,01 g/mol
Boiling Pt:	1496 °C (1013 hPa)
Melting Pt:	563,9 °C
Density:	1,595 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003523
CAS Number:	143-33-9
EINECS:	205-599-4
UN:	1689
ADR:	6.1I
Merck Index:	12,08750

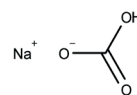
Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Sodium cyanide gran 500g ACS	White Poly Bottle, Blue Tamper Evident Cap	2 kg	BAKR3662-05

Specification test results	
Meets ACS Reagent chemical requirements	
For laboratory, research or manufacturing use	
Assay (NaCN) (by Ag titrn)	≥ 95.0 %
Chloride (Cl)	≤ 0.15 %
Phosphate (PO ₄)	≤ 0.02 %
Sulfate (SO ₄)	≤ 0.05 %

Specification test results	
Sulfide (S)	≤ 0.005 %
Thiocyanate (SCN)	≤ 0.02 %
Iron (Fe)	≤ 0.005 %
Trace Impurities - Lead (Pb)	≤ 5 ppm
Meets Reagent Specifications for testing USP/NF monographs	

SODIUM HYDROGEN CARBONATE 99.7-100.3%, ANALAR NORMAPUR® REAG. PH. EUR. ANALYTICAL REAGENT



Synonyms:	Sodium bicarbonate
Formula:	NaHCO ₃
MW:	84,01 g/mol
Melting Pt:	270 °C
Density:	2,159 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003528
CAS Number:	144-55-8
EINECS:	205-633-8
Merck Index:	12,08726

Description	Pack type	Pk	Cat.No.
Sodium hydrogen carbonate Analar NP R.P.E	Cardboard carton	25 kg	VWRC27778.460

Specification test results	
Assay (calc. on dried substance)	99.7 - 100.3 %
Appearance of solution	Passes test Ph.Eur.
Carbonates	Passes test Ph.Eur.
Identification A	Passes test Ph.Eur.
Identification B	Passes test Ph.Eur.
Identification C	Passes test Ph.Eur.
Solution S	Passes test Ph.Eur.
Heavy metals (as Pb)	Max. 5 ppm
Insolubility in water	Max. 0.015 %
Loss on drying	Max. 0.2 %
Reducing substances (as I)	Max. 65 ppm
Total N (Nitrogen)	Max. 5 ppm
Total S (as SO ₄)	Max. 30 ppm

Specification test results	
Cl (Chloride)	Max. 50 ppm
NH ₄ (Ammonium)	Max. 5 ppm
PO ₄ (Phosphate)	Max. 10 ppm
SO ₄ (Sulphate)	Max. 20 ppm
As (Arsenic)	Max. 2 ppm
Ca (Calcium)	Max. 100 ppm
Cu (Copper)	Max. 2 ppm
Fe (Iron)	Max. 5 ppm
K (Potassium)	Max. 50 ppm
Mg (Magnesium)	Max. 50 ppm
Pb (Lead)	Max. 5 ppm
Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test

SODIUM HYDROXIDE SOLUTION 50% (W/W), BAKER ANALYZED®, J.T. BAKER®



Danger



Synonyms:	Caustic soda
Formula:	NaOH
MW:	40 g/mol
Boiling Pt:	119...135 °C (1013 hPa)
Melting Pt:	9...10 °C
Density:	1,53 g/cm³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003548
CAS Number:	1310-73-2
EINECS:	215-185-5
UN:	1824
ADR:	8,II

CAUTION: IMPORTANT: Material will freeze if stored below 60°F (16°C). Protect from air to avoid absorption of carbon dioxide.

Description	Pack type	Pk	Cat.No.
Sodium hydroxide 50% (w/w) solution	HDPE pressure bottom poly bottle	500 ml	BAKR3727-01

Specification test results	
For laboratory, research or manufacturing use	
Protect from air to avoid absorption of carbon dioxide	
Assay (NaOH) (by acidimetry)	50 - 52 %
Color (APHA)	≤20
Sodium Carbonate (Na ₂ CO ₃)	≤0.1 %
Chloride (Cl)	≤0.002 %
Sulfate (SO ₄)	≤0.001 %
Ammonium Hydroxide Precipitate	≤0.01 %
Silica (SiO ₂), For Information Only	

Specification test results	
Heavy Metals (as Ag)	≤0.001 %
Potassium (K)	≤0.01 %
Nitrogen Compounds (as N)	≤5 ppm
Phosphate (PO ₄)	≤5 ppm
Trace Impurities - Iron (Fe)	≤5 ppm
Trace Impurities - Mercury (Hg), For Information Only	
Trace Impurities - Nickel (Ni)	≤5.000 ppm
IMPORTANT: Material will freeze if stored below 60°F (16°C)	

SODIUM HYDROXIDE 50% IN AQUEOUS SOLUTION, BIOTECH REAGENT, J.T. BAKER®



Danger



Synonyms:	Caustic soda
Formula:	NaOH
MW:	40 g/mol
Boiling Pt:	119...135 °C (1013 hPa)
Melting Pt:	9...10 °C
Density:	1,53 g/cm³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003548
CAS Number:	1310-73-2
EINECS:	215-185-5
UN:	1824
ADR:	8,II

Filtered 0.2 µm filter.

Biotech Reagent—A grade of product which is produced under GMP guidelines, but for which there is no USP/NF compendia for the product.

Filtered through a 5 micron filter.

Made from USP purified water and sodium hydroxide pellets, NF (Multicompendial) which meets BP, Ph.Eur. and JP chemical specifications.

Description	Pack type	Pk	Cat.No.
Sodium hydroxide 50% solution	Poly bottle pressure bottom	4 L	BAKR0339-03

Specification test results	
GMP Manufactured Product	
Store above 16°C (60°F) to prevent freezing	
CAUTION: For Manufacturing, processing or repackaging	
Assay (NaOH)	50 - 52 %
Chloride (Cl)	≤ 30 ppm
Heavy Metals (as Pb)	≤ 1 ppm
Trace Impurities - Iron (Fe)	≤ 2 ppm

Specification test results	
Sodium Carbonate (Na ₂ CO ₃)	≤ 3.0 %
Made from USP Purified Water and Sodium Hydroxide pellets, NF (Multicompendial) which meets BP, Ph.Eur. and JP Chemical Specifications	
No Class 1,2,3 or other solvents are used or produced in the manufacturing or purification of the product	
Filtered through a 5 micron filter	

SODIUM HYDROXIDE, BEADS, REAGENT GRADE



Danger



Synonyms:	Caustic soda
Formula:	NaOH
MW:	40 g/mol
Boiling Pt:	1390 °C (1013 hPa)
Melting Pt:	323 °C
Density:	2,13 g/cm³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003548
CAS Number:	1310-73-2
EINECS:	215-185-5
UN:	1823
ADR:	8,II
REACH:	01-2119457892-27
Merck Index:	14,08627

Description	Pack type	Pk	Cat.No.
Sodium hydroxide beads reagent grade	Plastic bottle for solids	1 kg	VWRC0173-1KG
Sodium hydroxide beads reagent grade	-	5 kg	VWRC0173-5KG

Specification test results	
Chloride	≤0.05%
Heavy Metals	≤0.006%
Potassium	≤0.1%

Specification test results	
Purity	>98.5%
Sodium Carbonate	≤0.90%
Sulphate	≤0.005%

SODIUM HYDROXIDE ≥98% (BY ACIDIMETRY), PELLETS, AR® ACS, MACRON FINE CHEMICALS™



Danger



Synonyms:	Caustic soda
Formula:	NaOH
MW:	40 g/mol
Boiling Pt:	1390 °C (1013 hPa)
Melting Pt:	323 °C
Density:	2,13 g/cm³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003548
CAS Number:	1310-73-2
EINECS:	215-185-5
UN:	1823
ADR:	8,II
REACH:	01-2119457892-27
Merck Index:	14,08627

AR - The standard Macron Fine Chemicals™ grade of analytical reagents; suitable for laboratory and general use.

Description	Pack type	Pk	Cat.No.
Sodium hydroxide pellet	-	12 kg	MACR7708-20
Sodium hydroxide pellet AR (ACS)	HDPE wide mouth bottle	2,5 kg	MACR7708-06
Sodium hydroxide pellets	Mall polystormor® poly/plastic bottle	500 g	MACR7708-10

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Assay (NaOH) (by acidimetry)	≥98 %
Identification	Passes Test
Calcium (Ca)	≤0.005 %
Chloride (Cl)	≤0.005 %
Copper (Cu)	≤0.001 %
Heavy Metals (as Ag)	≤0.001 %
Insoluble Matter	≤0.003 %
Iron (Fe)	≤0.0003 %
ACS - Magnesium (Mg)	≤0.002 %

Specification test results	
Mercury (Hg)	≤0.1 ppm
Nickel (Ni)	≤0.0005 %
Nitrogen Compounds (as N)	≤0.0003 %
Phosphate (PO ₄)	≤0.0002 %
Potassium (K)	≤0.02 %
Sodium Carbonate (Na ₂ CO ₃)	≤0.4 %
ACS - Sulfate (SO ₄)	≤0.003 %
Meets Reagent Specifications for testing USP/NF monographs	
Appearance (white hygroscopic pellets)	

LIST OF FEATURED PRODUCTS

SODIUM PEROXIDE ≥93.0%, GRANULES, AR® ACS, MACRON FINE CHEMICALS™



Danger



Synonyms:	di-Sodium peroxide
Formula:	Na ₂ O ₂
MW:	77,98 g/mol
Melting Pt:	660 °C
Density:	2,805 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003497
CAS Number:	1313-60-6
EINECS:	215-209-4
UN:	1504
ADR:	5.1,I
Merck Index:	12,08800

Description	Pack type	Pk	Cat.No.
Sodium peroxide gran ≥93.0% (Metal can)	Metal can	500 g	MACR7864-04

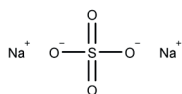
Specification test results

Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
ACS - Assay (Na ₂ O ₂) (by KMnO ₄ titrn)	≥93.0 %
ACS - Chloride (Cl)	≤0.002 %
ACS - Heavy Metals (as Pb)	≤0.002 %

Specification test results

ACS - Iron (Fe)	≤0.005 %
ACS - Phosphate (PO ₄)	≤0.0005 %
ACS - Sulfate (SO ₄)	≤0.001 %
Appearance (white to pale yellow, hygroscopic granules)	

SODIUM SULPHATE, ANHYDROUS ≥99.0%, POWDER, BAKER ANALYZED® ACS, J.T. BAKER®



Synonyms:	Sulphuric acid disodium salt, Bisodium sulphate, Disodium sulphate
Formula:	Na ₂ SO ₄
MW:	142,04 g/mol
Boiling Pt:	1429 °C (1013 hPa)
Melting Pt:	888 °C
Density:	2,7 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00003504
CAS Number:	7757-82-6
EINECS:	231-820-9
Merck Index:	12,08829

Description	Pack type	Pk	Cat.No.
Sodium sulfate anhydrous	Glass bottle	500 g	BAKR3898-01
Sodium sulfate anhydrous	-	12 kg	BAKR3898-07

Specification test results

ACS - Assay (Na ₂ SO ₄)	≥99.0 %
ACS - Insoluble Matter	≤0.01 %
ACS - Loss on Ignition	≤0.5 %
ACS - pH of 5% Solution at 25°C	5.2 - 9.2
ACS - Chloride (Cl)	≤0.001 %
ACS - Phosphate (PO ₄)	≤0.001 %

Specification test results

ACS - Calcium (Ca)	≤0.01 %
ACS - Magnesium (Mg)	≤0.005 %
ACS - Potassium (K)	≤0.01 %
ACS - Nitrogen Compounds (as N)	≤5 ppm
ACS - Heavy Metals (as Pb)	≤5 ppm
ACS - Iron (Fe)	≤0.001 %

STANDARD BUFFERS PH10 BLUE 1 * 4 L



Description	Pack type	Pk	Cat.No.
Standard buffers ph10 blue	-	4 L	BDHB5076-4L

STANDARD BUFFERS PH4 RED 1 * 4 L



Description	Pack type	Pk	Cat.No.
Standard buffers ph4 red	-	4 L	BDHB5022-4L

STANDARD BUFFERS PH7 YELLOW 1 * 4 L



Description	Pack type	Pk	Cat.No.
Standard buffers ph7 yellow	-	4 L	BDHB5050-4L

TIN(II) CHLORIDE DIHYDRATE 98.0-103%, CRYSTALS, AR® ACS, MACRON FINE CHEMICALS™



Danger



Synonyms:	Stannous chloride dihydrate
Formula:	SnCl ₂ ·2H ₂ O
MW:	225,65 g/mol
Boiling Pt:	623 °C (1013 hPa)
Melting Pt:	246 °C
Density:	2,71 g/cm ³ (25 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00149863
CAS Number:	10025-69-1
EINECS:	231-868-0
UN:	3260
ADR:	8,III

Description	Pack type	Pk	Cat.No.
Stannous chloride crystal dihydrate	Mall stakmor case	12 kg	MACR8176-20

Specification test results

For laboratory, research or manufacturing use	
ACS - Assay (SnCl ₂ ·2H ₂ O)	98.0 - 103.0 %
ACS - Mercury (Hg)	≤0.050 ppm
ACS - Solubility in HCl	Passes Test
ACS - Sodium (Na)	≤0.01 %
ACS - Potassium (K)	≤0.005 %

Specification test results

ACS - Iron (Fe)	≤0.003 %
ACS - Calcium (Ca)	≤0.005 %
ACS - Lead (Pb)	≤0.01 %
Appearance: colorless to slightly yellow (but definitely not green) crystals	

TIN(II) CHLORIDE DIHYDRATE 98-103% ACS



Danger



Synonyms:	Stannous chloride dihydrate
Formula:	SnCl ₂ ·2H ₂ O
MW:	225,65 g/mol
Boiling Pt:	623 °C (1013 hPa)
Melting Pt:	246 °C
Density:	2,71 g/cm ³ (25 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00149863
CAS Number:	10025-69-1
EINECS:	231-868-0
UN:	3260
ADR:	8,III
Merck Index:	12,08939

Description	Pack type	Pk	Cat.No.
Stannous chloride dihydrate	Plastic bottle for solids	500 g	VWRC1B1517-500G

Specification test results	
Assay	98 - 103%
Calcium	≤0.005%
Iron	≤0.003%
Lead	≤0.01%

Specification test results	
Potassium	≤0.005%
Sodium	≤0.01%
Solubility in hydrochloric acid	Pass
Sulphate (P/F)	Pass

SULPHURIC ACID 95.0-98.0%, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	H ₂ SO ₄
MW:	98,08 g/mol
Boiling Pt:	~335 °C (1013 hPa)
Melting Pt:	3 °C
Density:	1,84 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00064589
CAS Number:	7664-93-9
EINECS:	231-639-5
UN:	1830
ADR:	8,II

Description	Pack type	Pk	Cat.No.
Sulfuric acid 95.0 - 98.0% ACS	-	2,5 L	BAKR9690-80

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Assay (H ₂ SO ₄)	95.0 - 98.0 %
Appearance	Passes Test
Color (APHA)	≤10
Specific Gravity at 60°/60°F	≥1.84
Residue after Ignition	≤4 ppm
Substances Reducing Permanganate (as SO ₂)	≤2 ppm
Ammonium (NH ₄)	≤1 ppm
Trace Impurities - Arsenic (As)	≤0.004 ppm
Chloride (Cl)	≤0.1 ppm
Nitrate (NO ₃)	≤0.5 ppm
Trace Impurities - Aluminum (Al)	≤200.0 ppb
Trace Impurities - Calcium (Ca)	≤200.0 ppb
Trace Impurities - Chromium (Cr)	≤100.0 ppb

Specification test results	
Trace Impurities - Copper (Cu)	≤100.0 ppb
Trace Impurities - Gold (Au)	≤100.0 ppb
Heavy Metals (as Pb)	≤500.0 ppb
Trace Impurities - Iron (Fe)	≤200.0 ppb
Trace Impurities - Lead (Pb)	≤200.0 ppb
Trace Impurities - Magnesium (Mg)	≤200.0 ppb
Trace Impurities - Manganese (Mn)	≤100.0 ppb
Trace Impurities - Mercury (Hg)	≤5.0 ppb
Trace Impurities - Nickel (Ni)	≤200.0 ppb
Trace Impurities - Potassium (K)	≤300.0 ppb
Trace Impurities - Sodium (Na)	≤300 ppb
Trace Impurities - Tin (Sn)	≤200.0 ppb
Trace Impurities - Titanium (Ti)	≤200.0 ppb
Trace Impurities - Zinc (Zn)	≤200.0 ppb
Meets Reagent Specifications for testing USP/NF monographs	

SULPHURIC ACID 95.0-98.0%, AR® ACS, MACRON FINE CHEMICALS™



Danger



Formula:	H ₂ SO ₄
MW:	98,08 g/mol
Boiling Pt:	~335 °C (1013 hPa)
Melting Pt:	3 °C
Density:	1,84 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00064589
CAS Number:	7664-93-9
EINECS:	231-639-5
UN:	1830
ADR:	8,II

Management of Change (MOC) category = N

Description	Pack type	Pk	Cat.No.
Sulfuric acid 95.0-98.0% ACS (glass)	Poly bottle	2,5 L	MACR2876-18

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Appearance	Passes Test
ACS - Assay (H ₂ SO ₄)	95.0 - 98.0 %
ACS - Color (APHA)	≤10
ACS - Residue after Ignition	≤5 ppm
ACS - Chloride (Cl)	≤0.2 ppm
ACS - Nitrate (NO ₃)	≤0.5 ppm

Specification test results	
ACS - Ammonium (NH ₄)	≤2 ppm
ACS - Substances Reducing Permanganate (as SO ₂)	≤2 ppm
ACS - Heavy Metals (as Pb)	≤1 ppm
Trace Impurities - Mercury (Hg)	≤5.0 ppb
Trace Impurities - Arsenic (As)	≤0.010 ppm
Trace Impurities - Boron (B)	≤0.010 ppm
Trace Impurities - Iron (Fe)	≤0.2 ppm

SULPHURIC ACID 95.0-97.0%, ANALAR NORMAPUR® ANALYTICAL REAGENT



Danger



Formula:	H ₂ SO ₄
MW:	98,08 g/mol
Boiling Pt:	330 °C (1013 hPa)
Melting Pt:	10,38 °C
Density:	1,84 g/cm ³ (20 °C)
Storage Temperature:	Ambient
MDL Number:	MFCD00064589

CAS Number:	7664-93-9
EINECS:	231-639-5
UN:	1830
ADR:	8,II
REACH:	01-2119458838-20
Merck Index:	14,08974

Description	Pack type	Pk	Cat.No.
Sulphuric acid 95 % analar normapur	Glass bottle	500 ml	VWRC20700.265
Sulphuric acid 95 % analar normapur	Plastic bottle	1 L	VWRC20700.290
Sulphuric acid 95 % analar normapur	Plastic bottle	2,5 L	VWRC20700.320
Sulphuric acid 95% analar normapur	Glass bottle	2,5 L	VWRC20700.420

Specification test results	
Assay	95.0 - 97.0 %
Colouration	Max. 10 APHA
Ignition residue	Max. 5 ppm
Substances reducing KMnO ₄ (as SO ₂)	Max. 2 ppm
Cl (Chloride)	Max. 0.2 ppm
NH ₄ (Ammonium)	Max. 2 ppm
NO ₃ + NO ₂ (as NO ₃)	Max. 0.2 ppm
PO ₄ (Phosphate)	Max. 0.5 ppm
Ag (Silver)	Max. 0.02 ppm
Al (Aluminium)	Max. 0.02 ppm
As (Arsenic)	Max. 0.005 ppm
Ba (Barium)	Max. 0.02 ppm
Be (Beryllium)	Max. 0.01 ppm
Bi (Bismuth)	Max. 0.01 ppm
Ca (Calcium)	Max. 0.2 ppm
Cd (Cadmium)	Max. 0.02 ppm
Co (Cobalt)	Max. 0.01 ppm

Specification test results	
Cr (Chromium)	Max. 0.02 ppm
Cu (Copper)	Max. 0.01 ppm
Fe (Iron)	Max. 0.2 ppm
Ge (Germanium)	Max. 0.02 ppm
K (Potassium)	Max. 0.05 ppm
Li (Lithium)	Max. 0.01 ppm
Mg (Magnesium)	Max. 0.03 ppm
Mn (Manganese)	Max. 0.01 ppm
Mo (Molybdenum)	Max. 0.02 ppm
Na (Sodium)	Max. 0.5 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.02 ppm
Sr (Strontium)	Max. 0.02 ppm
Ti (Titanium)	Max. 0.02 ppm
Tl (Thallium)	Max. 0.02 ppm
V (Vanadium)	Max. 0.01 ppm
Zn (Zinc)	Max. 0.1 ppm
Zr (Zirconium)	Max. 0.02 ppm

LIST OF FEATURED PRODUCTS

SULPHURIC ACID 95.0-98.0%, BAKER ANALYZED® ACS, J.T. BAKER®



Danger



Formula:	H ₂ SO ₄
MW:	98,08 g/mol
Boiling Pt:	~335 °C (1013 hPa)
Melting Pt:	3 °C
Density:	1,84 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00064589
CAS Number:	7664-93-9
EINECS:	231-639-5
UN:	1830
ADR:	8,II
Merck Index:	14,08974

Description	Pack type	Pk	Cat.No.
Sulphuric acid 95.0-98.0% ACS (glass)	Clear glass bottle	2,5 L	BAKR9681-03

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Assay (H ₂ SO ₄)	95.0 - 98.0 %
Appearance	Passes Test
Color (APHA)	≤10
Specific Gravity at 60°/60°F	≥1.84
Residue after Ignition	≤4 ppm
Substances Reducing Permanganate (as SO ₂)	≤2 ppm
Ammonium (NH ₄)	≤1 ppm
Trace Impurities - Arsenic (As)	≤0.004 ppm
Chloride (Cl)	≤0.1 ppm
Nitrate (NO ₃)	≤0.5 ppm
Trace Impurities - Aluminum (Al)	≤200.0 ppb
Trace Impurities - Calcium (Ca)	≤200.0 ppb
Trace Impurities - Chromium (Cr)	≤100.0 ppb

Specification test results	
Trace Impurities - Copper (Cu)	≤100.0 ppb
Trace Impurities - Gold (Au)	≤100.0 ppb
Heavy Metals (as Pb)	≤500.0 ppb
Trace Impurities - Iron (Fe)	≤200.0 ppb
Trace Impurities - Lead (Pb)	≤200.0 ppb
Trace Impurities - Magnesium (Mg)	≤200.0 ppb
Trace Impurities - Manganese (Mn)	≤100.0 ppb
Trace Impurities - Mercury (Hg)	≤5.0 ppb
Trace Impurities - Nickel (Ni)	≤200.0 ppb
Trace Impurities - Potassium (K)	≤300.0 ppb
Trace Impurities - Sodium (Na)	≤300 ppb
Trace Impurities - Tin (Sn)	≤200.0 ppb
Trace Impurities - Titanium (Ti)	≤200.0 ppb
Trace Impurities - Zinc (Zn)	≤200.0 ppb
Meets Reagent Specifications for testing USP/NF monographs	

TIN(II) CHLORIDE DIHYDRATE 98.0-103.0%, ANALAR NORMAPUR® ACS, REAG. PH. EUR. ANALYTICAL REAGENT



Danger



Synonyms:	Stannous chloride dihydrate
Formula:	SnCl ₂ ·2H ₂ O
MW:	225,65 g/mol
Boiling Pt:	623 °C (1013 hPa)
Melting Pt:	246 °C
Density:	2,71 g/cm ³ (25 °C)
Storage Temperature:	Ambient
MDL Number:	MFCD00149863

CAS Number:	10025-69-1
EINECS:	231-868-0
UN:	3260
ADR:	8,III
Merck Index:	12,08939

Description	Pack type	Pk	Cat.No.
Tin (ii) chloride 2H ₂ O Analar R.PE/ACS	Plastic bottle for solids	1 kg	VWRC23742.293

Specification test results	
Assay	98.0 - 103.0 %
Identification	Passes test
Insolubility in diluted HCl	Passes test
NH ₄ (Ammonium)	Max. 20 ppm
SO ₄ (Sulphate)	Max. 20 ppm
As (Arsenic)	Max. 1 ppm
Ca (Calcium)	Max. 0,005%

Specification test results	
Cu (Copper)	Max. 10 ppm
Fe (Iron)	Max. 20 ppm
K (Potassium)	Max. 50 ppm
Na (Sodium)	Max. 100 ppm
Pb (Lead)	Max. 50 ppm
Conforms to ACS	Passes test
Conforms to Reag. Ph.Eur.	Passes test

ZINC ≥99.8% (BY EDTA TITRATION), GRANULAR, BAKER ANALYZED® ACS (20 MESH), J.T. BAKER®



Danger



Formula:	Zn
MW:	65,39 g/mol
Boiling Pt:	908 °C (1013 hPa)
Melting Pt:	420 °C
Density:	7,14 g/cm ³ (20 °C)
Storage Temperature:	Ambient

MDL Number:	MFCD00011291
CAS Number:	7440-66-6
EINECS:	231-175-3
Merck Index:	12,10255

Description	Pack type	Pk	Cat.No.
Zinc granular (20 mesh)	Poly bottle	500 g	BAKR4244-01
Zinc granular (20 mesh)	2GL polyethylene pail, screw top	12 kg	BAKR4244-07

Specification test results	
Meets ACS Reagent Chemical Requirements	
For laboratory, research or manufacturing use	
Assay (Zn) (by EDTA titrn)	≥99.8 %
Iron (Fe)	≤0.01 %
Lead (Pb)	≤0.01 %
Suitability for Arsenic Determination	Passes Test

Specification test results	
Trace Impurities - Arsenic (As)	≤0.100 ppm
Mesh - On U.S. No. 16 Sieve	≤5 %
Mesh - Thru U.S. No. 35 Sieve	≤30 %
Meets Reagent Specifications for testing USP/NF monographs	

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