

Соли металлов

Технические характеристики

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CHROMIUM TRIOXIDE 99% AR

Chromium(VI) oxide; Chromic anhydride ;Chromic Acid

Product Code.	00808	Grade	
Purity	99%	CAS No.	1333-82-0
Molecular Formula	CrO3	Molecular Weight	99.99
H.S.Code	2819.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Reddish brown	Odour	Odorless
Melting point/ Freezing point [°C]	196 °C	Density [g/cm3]	2.7	Solubility in water [% weight]	63g/100g water @ 200C
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 1				

Packaging

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Specification

Appearance	Reddish brown flakes
Assay (iodometric)	Min 99%
Insoluble matter in water	Max 0.01%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.02%
Total nitrogen (N)	Max 0.005%
Lead (Pb)	Max 0.004%
Iron (Fe)	Max 0.01%
Copper (Cu)	Max 0.0005%
Sodium (Na)	Max 0.01%
Potassium (K)	Max 0.005%

Substance precipitated by NH3

Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS05, GHS06, GHS08, GHS09

Signal Word: Danger

UN No.: 1463

IMCO Class No.: 5.1,6.1,8

Packing Group: II

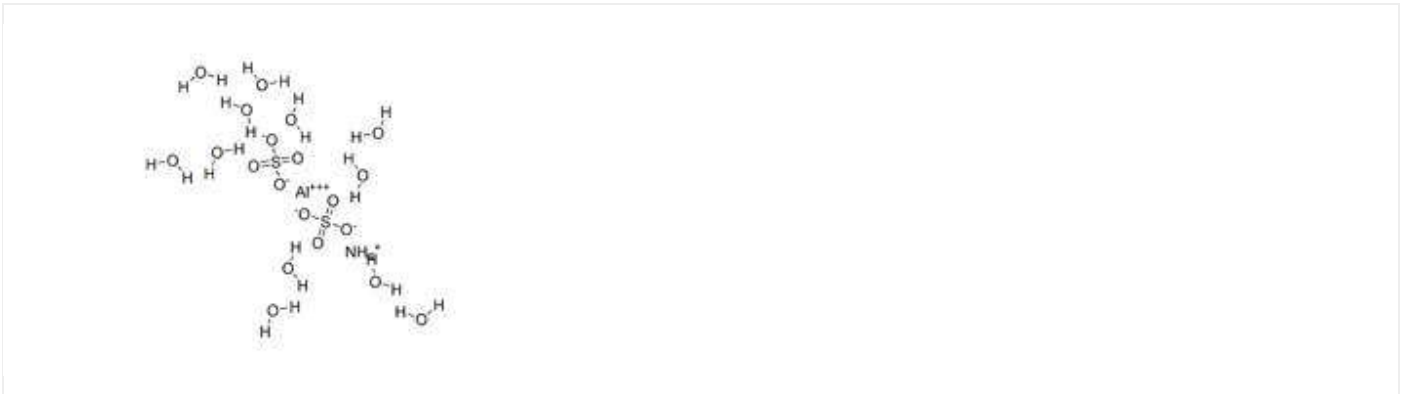
Hazardous Statement: H271-H301-H311-H314-H317-H330-H334-H340-H350-H361f-H372-H410

Precaution Statement: P201-P220-P260-P273-P280-P284

ALUMINIUM AMMONIUM SULPHATE DODECAHYDRATE 98% EXTRAPURE

Ammonium alum ;Ammonium Aluminium Sulphate

Product Code.	00115	Grade	Extrapure
Purity	Min 98%	CAS No.	7784-26-1
Molecular Formula	NH4Al(SO4)2.12H2O	Molecular Weight	453.32
H.S.Code	2833.30100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	2.6	Melting point/ Freezing point [°C]	93.5 °C	Boiling point [°C]	280°C
Density [g/cm3]	1.65	Solubility in water [% weight]	14% in water		

Packaging

Specification

Appearance	White crystalline powder
Assay (complexometric)	Min 98.0%
Chloride (Cl)	Max 0.005%
Heavy metal (as Pb)	Max 0.005%
Arsenic (As)	Max 0.003%
Iron (Fe)	Max 0.001%
Substance not preprecipitate by NH3 (as SO4)	Max 0.3%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

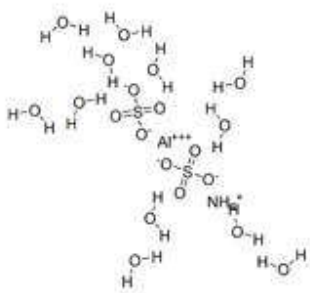
Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

ALUMINIUM AMMONIUM SULPHATE DODECAHYDRATE 99.5% AR

Ammonium Alum; Ammonium Aluminium Sulphate

Product Code.	00116	Grade	
Purity	Min 98%	CAS No.	7784-26-1
Molecular Formula	NH ₄ Al(SO ₄) ₂ .12H ₂ O	Molecular Weight	453.32
H.S.Code	2833.30100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	2.6	Melting point/ Freezing point [°C]	93.5 °C	Boiling point [°C]	280°C
Density [g/cm ³]	1.65	Solubility in water [% weight]	14% in water		

Packaging



Specification

Appearance	White crystalline powder
Assay	98-102%
Phosphate (PO ₄)	Max 0.0025%
Insoluble matter	Max 0.005%

Reaction	Not less than pH 3.0
Chloride (Cl)	Max 0.001%
Nitrate (NO3)	Max 0.001%
Silicate (SiO3)	Max 0.002%
Arsenic (As)	Max 0.00005%
Copper (Cu)	Max 0.0005%
Iron (Fe)	Max 0.001%
Heavy metal (as Pb)	Max 0.001%
Calcium (Ca)	Max 0.05%
Potassium (K)	Max 0.05%
Sodium (Na)	Max 0.01%

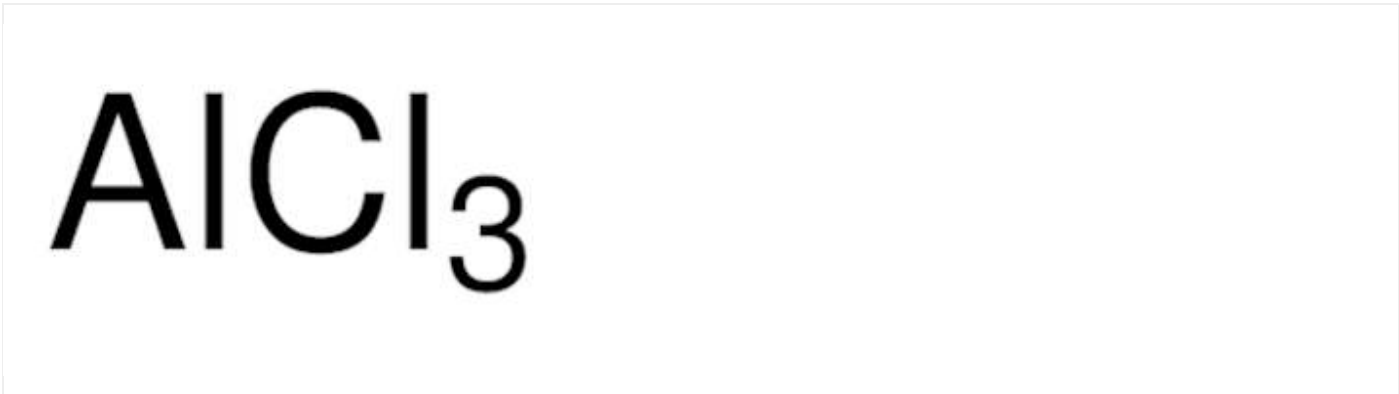
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

ALUMINIUM CHLORIDE ANHYDROUS 98% EXTRAPURE

Decomposes with water Aluminium Trichloride Anhydrous

Product Code.	00117	Grade	
Purity	Min. 98%	CAS No.	7446-70-0
Molecular Formula	AlCl3	Molecular Weight	133.34
H.S.Code	2827.32000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow	Odour	Strong hydrogen chloride odor
pH value	2.4	Melting point/ Freezing point [°C]	190 °C	Boiling point [°C]	187.7 °C
Vapour pressure [20°C]	< 1.33 hPa at 20 °C	Density [g/cm3]	2.44	Solubility in water [% weight]	Soluble in water

Packaging



Specification

Appearance	White to yellow to grey granules
Assay (ex Cl)	Min 98%

Iron (Fe)	Max 0.05%
Heavy metal (as Pb)	Max 0.005%
Sulphate (SO4)	Max 0.05%

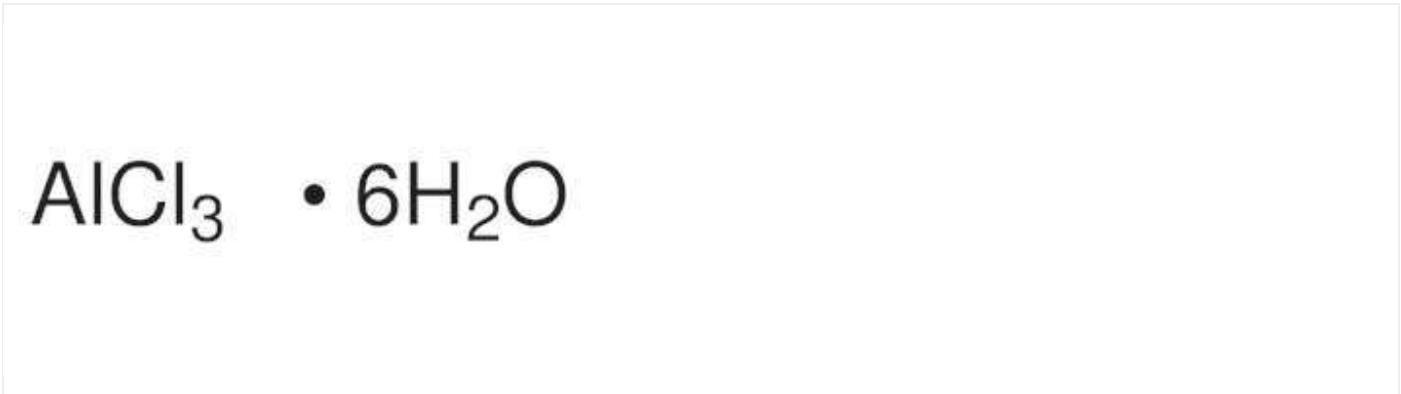
Safety Information and Hazard Symbols


Symbol: GHS05 Signal Word: Danger UN No.: 1726 IMCO Class No.: 8 Packing Group: II Hazardous Statement: H314 Precaution Statement: P280-P305 + P351 + P338-P310

ALUMINIUM CHLORIDE HEXAHYDRATE 97% EXTRA PURE

Aluminium Trichloride Hexahydrate

Product Code.	00118	Grade	Extra Pure
Purity	97%	CAS No.	7784-13-6
Molecular Formula	AlCl3.6H2O	Molecular Weight	241.45
H.S.Code	2827.32000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	2.5 - 3.5	Melting point/ Freezing point [°C]	100 °C	Vapour pressure mm/Hg	1 mm Hg at 100 °C
Density [g/cm3]	2.398	Solubility in water [% weight]	Soluble in water		

Packaging



Specification

Appearance	White or slightly yellow deliquescent crystals/crystalline powder
Assay (complexometric)	97 - 101%
Sulphate (SO4)	Max 0.01%
Heavy metal (as Pb)	Max 0.005%

Arsenic (As)	Max 0.0004%
Iron (Fe)	Max 0.005%

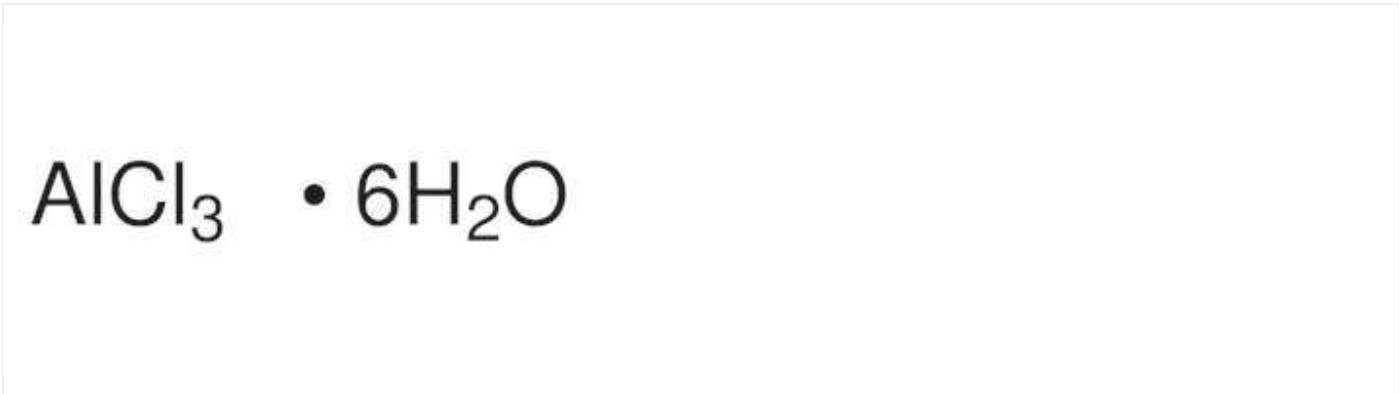
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

ALUMINIUM CHLORIDE HEXAHYDRATE 99% AR

Aluminium trichloride Hexahydrate

Product Code.	00119	Grade	AR
Purity	Min. 99%	CAS No.	7784-13-6
Molecular Formula	AlCl3.6H2O	Molecular Weight	241.45
H.S.Code	2827.32000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	2.5 - 3.5	Melting point/ Freezing point [°C]	100 °C	Vapour pressure mm/Hg	1 mm Hg at 100 °C
Density [g/cm3]	2.398	Solubility in water [% weight]	Soluble in water		

Packaging



Specification

Appearance	White crystalline powder or colorless crystals, deliquescent
Assay (Complexometric)	Min 99.0%
Solubility	Very soluble in water, freely soluble with ethanol (96 Per cent), soluble in glycerol

Identification (as per BP)	Passes test
Appearance of solution	Passes test
Sulphate (SO ₄)	Max 0.005%
Calcium (Ca)	Max 0.01%
Cadmium (Cd)	Max 0.005%
Cobalt (Co)	Max 0.005%
Copper (Cu)	Max 0.005%
Iron (Fe)	Max 0.001%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.05%
Nickel (Ni)	Max 0.005%
Lead (Pb)	Max 0.005%
Zinc (Zn)	Max 0.005%
Alkali & alkaline earth metals	Max 0.5%
Water (H ₂ O)	42.0 - 48.0%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

ALUMINIUM FLUORIDE (3-HYDRATE) AR

Aluminum trifluoride trihydrate

Product Code.	00121	Grade	AR
Purity	Min. 97.5%	CAS No.	15098-87-0
Molecular Formula	AlF3.3H2O	Molecular Weight	138.02
H.S.Code	28261200.00000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Density [g/cm3]	3.1
Solubility in water [% weight]	Slightly soluble in water				

Packaging



Specification

Appearance	Fine white powder
Assay	Min. 97.5%
Density [g/cm3]	2.88

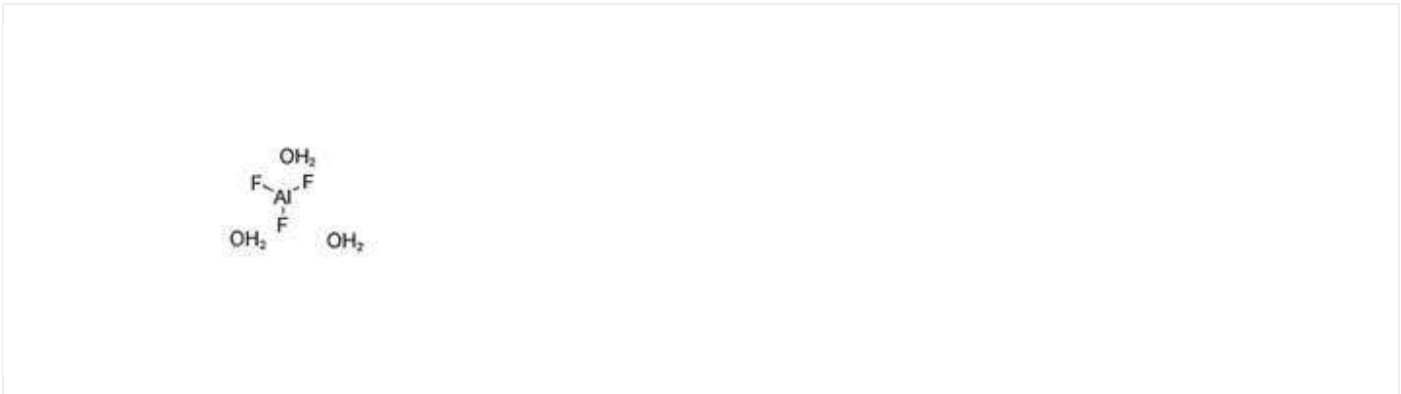
Safety Information and Hazard Symbols

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ALUMINIUM FLUORIDE TRIHYDRATE 97% EXTRAPURE

Aluminum trifluoride trihydrate

Product Code.	00120	Grade	
Purity	Min. 97%	CAS No.	15098-87-0
Molecular Formula	AlF3.3H2O	Molecular Weight	138.02
H.S.Code	2826.12000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Density [g/cm3]	3.1
Solubility in water [% weight]	Slightly soluble in water				

Packaging



Specification

Appearance	Fine white powder
Assay	Min 97%
Iron (Fe)	Max 0.01%
Sulphate (SO4)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

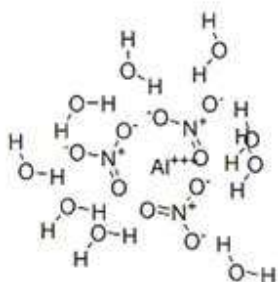
Hazardous Statement: H302-H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

ALUMINIUM NITRATE NONAHYDRATE 98% EXTRAPURE

Aluminium(III) Nitrate; Nitric acid aluminum salt

Product Code.	00124	Grade	
Purity	98%	CAS No.	7784-27-2
Molecular Formula	Al(NO3)3.9H2O	Molecular Weight	375.13
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystals	pH value	2.5 - 3.5
Melting point/ Freezing point [°C]	73 °C	Boiling point [°C]	135°C	Solubility in water [% weight]	Soluble in water
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 3				

Packaging



Specification

Appearance	White crystals or crystalline powder
Assay	Min 98%

Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.01%
Sodium (Na)	Max 0.01%
Iron (Fe)	Max 0.005%
Potassium (K)	Max 0.01%

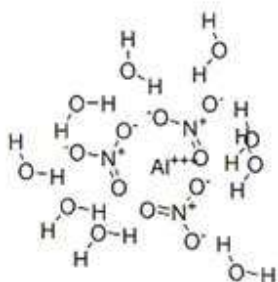
Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Warning UN No.: 1438 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272-H315-H319 Precaution Statement: P220-P305 + P351 + P338

ALUMINIUM NITRATE NONAHYDRATE 98.5% AR

Aluminium(III) Nitrate; Nitric acid aluminum salt

Product Code.	00125	Grade	
Purity	98.5%	CAS No.	7784-27-2
Molecular Formula	Al(NO ₃) ₃ ·3H ₂ O	Molecular Weight	375.13
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystals	pH value	2.5 - 3.5
Melting point/ Freezing point [°C]	73 °C	Boiling point [°C]	135°C	Solubility in water [% weight]	Soluble in water
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 3				

Packaging



Specification

Appearance	White crystals or crystalline powder
Assay (complexometric)	98.5-102%

Insoluble matter	Max 0.005%
Reaction	Min pH 2.0
Chloride (Cl)	Max 0.001%
Sulphate (SO4)	Max 0.005%
Ammonium (NH4)	Max 0.02%
Copper (Cu)	Max 0.001%
Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.001%
Magnesium (Mg)	Max 0.001%
Calcium (Ca)	Max 0.005%
Potassium (K)	Max 0.002%
Sodium (Na)	Max 0.005%

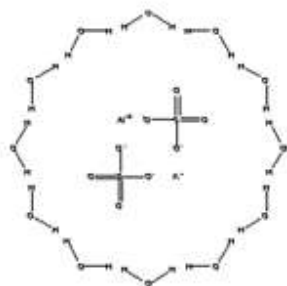
Safety Information and Hazard Symbols

 
Symbol: GHS03, GHS07 Signal Word: Warning UN No.: 1438 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272-H315-H319 Precaution Statement: P220-P305 + P351 + P338

ALUMINIUM POTASSIUM SULPHATE DODECAHYDRATE 99% AR

Conforms to BP, Ph Eur, USP Alum, Potassium alum, Potassium aluminum sulfate dodecahydrate

Product Code.	00131	Grade	00131
Purity	99%	CAS No.	7784-24-9
Molecular Formula	AlK(SO ₄) ₂ .12H ₂ O	Molecular Weight	474.38
H.S.Code	2833.30300	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	3.3	Melting point/ Freezing point [°C]	92 °C	Boiling point [°C]	200°C
Density [g/cm ³]	1.757	Solubility in water [% weight]	14% in water		

Packaging



Specification

Appearance	White crystalline powder/crystals
Assay (complexometric)	99.0-100.5%
Identification	To comply USP, BP test
Appearance of solution	Passes test

Insoluble matter	Max 0.005%
pH (10% solution in water)	3.0 -3.5
Chloride (Cl)	Max 0.0005%
Ammonium (NH4)	Max 0.005%
Arsenic (As)	Max 0.0002%
Copper (Cu)	Max 0.0005%
Iron (Fe)	Max 0.0005%
Heavy metal (as Pb)	Max 0.001%
Sodium (Na)	Max 0.02%
Loss on drying (at 400°C)	43 - 46%

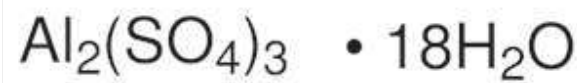
Safety Information and Hazard Symbols

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ALUMINIUM SULPHATE OCTADECALHYDRATE 98% AR

Alum; Dialuminum sulfate octadecahydrate

Product Code.	00135	Grade	
Purity	Min 98%	CAS No.	7784-31-8
Molecular Formula	Al2(SO4)3.18H2O	Molecular Weight	666.42
H.S.Code	2833.22100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	pH value	3 - 4
Melting point/ Freezing point [°C]	86 °C	Solubility in water [% weight]	Soluble in water		

Packaging



Specification

Appearance	A white crystalline powder
Assay (as Al2(SO4)3.18H2O]; complexometric)	98 - 102%
Insoluble matter	Max 0.005%
Reaction	Min pH 2.5
Chloride (Cl)	Max 0.001%

Ammonium (NH ₄)	Max 0.002%
Copper (Cu)	Max 0.001%
Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.001%
Calcium (Ca)	Max 0.01%
Magnesium (Mg)	Max 0.002%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.02%
Substance not precipitated by ammonia (as SO ₄)	Max 0.2%

Safety Information and Hazard Symbols



Symbol: GHS05

Signal Word: Danger

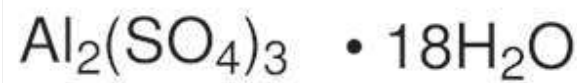
Hazardous Statement: H318

Precaution Statement: P280-P305 + P351 + P338

ALUMINIUM SULPHATE OCTADECAHYDRATE 98% EXTRAPURE

Alum; Dialuminum sulfate octadecahydrate

Product Code.	00134	Grade	Extrapure
Purity	98%	CAS No.	7784-31-8
Molecular Formula	Al2(SO4)3.18H2O	Molecular Weight	666.42
H.S.Code	2833.22100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	pH value	3 - 4
Melting point/ Freezing point [°C]	86 °C	Solubility in water [% weight]	Soluble in water		

Packaging



Specification

Appearance	A white crystalline powder
Assay (as Al2(SO4)3; complexometric)	Min 98.0%
pH (2% solution in water)	2.5 - 4.0
Chloride (Cl)	Max 0.005%
Heavy metal (as Pb)	Max 0.002%

Ammonium (NH ₄)	Max 0.005%
Arsenic (As)	Max 0.001%
Calcium (Ca)	Max 0.02%
Iron (Fe)	Max 0.005%
Potassium (K)	Max 0.2%
Alkalies & alkaline earth metals	Max 0.4%

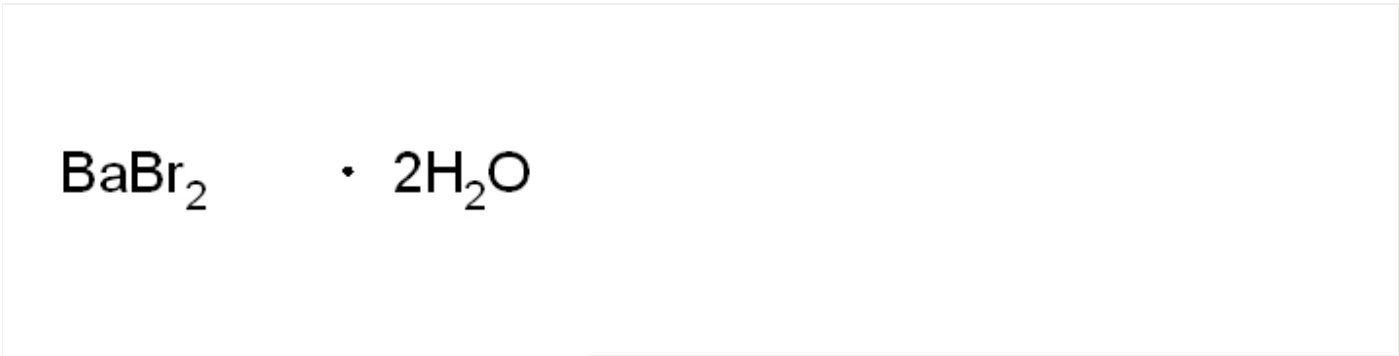
Safety Information and Hazard Symbols


Symbol: GHS05 Signal Word: Danger Hazardous Statement: H318 Precaution Statement: P280-P305 + P351 + P338

BARIUM BROMIDE 98% EXTRAPURE

Barium Dibromide

Product Code.	00333	Grade	Extra Pure
Purity	98%	CAS No.	7791-28-8
Molecular Formula	BaBr2.2H2O	Molecular Weight	333.17
H.S.Code	2827.59900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Density [g/cm3]	3.58
Solubility in water [% weight]	Soluble in water				

Specification

Appearance	White crystalline powder
Assay	Min 98.0%
pH (10% solution in water)	5.0 - 7.0
Iron (Fe)	Max 0.002%
Lead (Pb)	Max 0.002%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning UN No.: 1564 IMCO Class No.: 6.1 Packing Group: III Risk Statement: 20/22 Safety Statement: 28

BARIUM BROMIDE AR

Product Code.	00334	Grade	
Purity	Min 98.5%	CAS No.	7791-28-8
Molecular Formula	BaBr2.2H2O	Molecular Weight	333.17
H.S.Code	28275990.00000	Shelf Life	

Physical Properties

Packaging



Specification

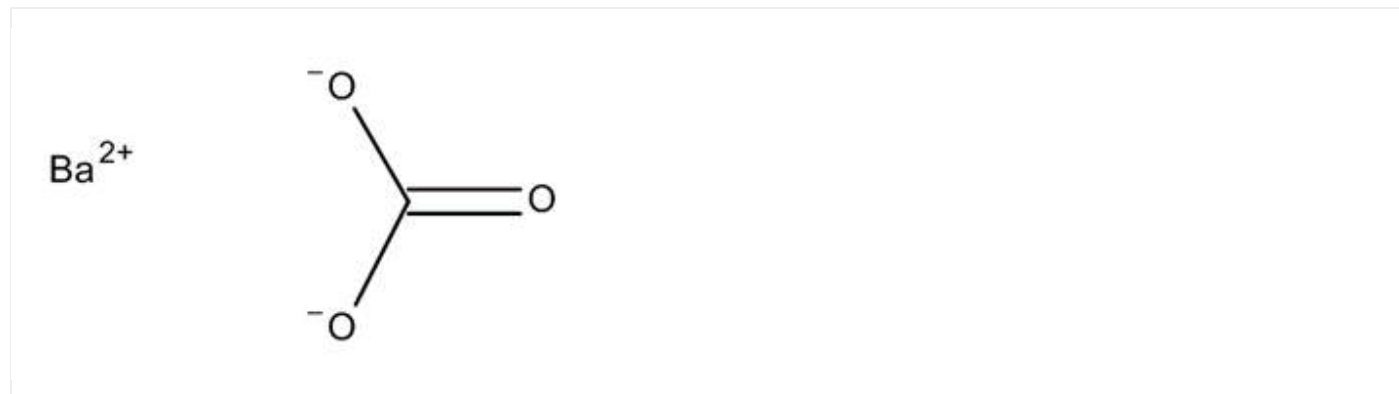
Safety Information and Hazard Symbols

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BARIUM CARBONATE 98% EXTRAPURE

Barium monocarbonate; Carbonic acid barium salt

Product Code.	00335	Grade	Extrapure
Purity	98%	CAS No.	513-77-9
Molecular Formula	BaCO ₃	Molecular Weight	197.34
H.S.Code	2836.60000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	811°C	Decomposition point [°C]	1300°C	Density [g/cm ³]	4.43
Solubility in water [% weight]	Slightly soluble				

Packaging



Specification

Appearance	White powder
Assay (acidimetric)	Min 98.0%
Substance insoluble in dilute HCl	Max 0.05%
Chloride (Cl)	Max 0.05%

Sulphide (S)	Max 0.001%
Heavy metals (as Pb)	Max 0.003%
Iron (Fe)	Max 0.005%
Strontium (Sr)	Max 0.8%

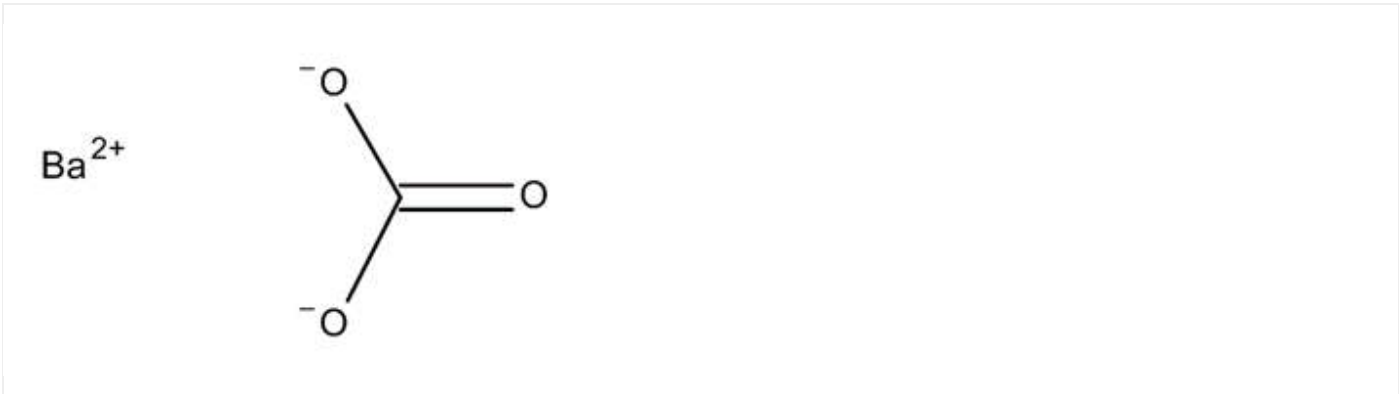
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302 Risk Statement: 22 Safety Statement: 24/25

BARIUM CARBONATE 99% AR

Barium monocarbonate; Carbonic acid barium salt

Product Code.	00336	Grade	
Purity	98.5%	CAS No.	513-77-9
Molecular Formula	BaCO3	Molecular Weight	197.34
H.S.Code	2836.60000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	811°C	Decomposition point [°C]	1300°C	Density [g/cm3]	4.43
Solubility in water [% weight]	Slightly soluble				

Packaging



Specification

Appearance	A White / off white Powder
Assay (acidimetric)	98.5%- 101%
Substance insoluble in dilute HCl	Max 0.015%
Chloride (Cl)	Max 0.002%

Sulphide (S)	Max 0.001%
Heavy metal (as Pb)	Max 0.001%
Iron (Fe)	Max 0.001%
Calcium (Ca)	Max 0.02%
Strontium (Sr)	Max 0.3%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.02%
Hydroxide and alkali carbonate (as Ba(OH) ₂)	Max 0.015%
Substance oxidizable (as NO ₃)	Max 0.005%
Substance not precipitated by H ₂ SO ₄ (as SO ₄)	Max 0.3%

Safety Information and Hazard Symbols



Symbol: GHS07
 Signal Word: Warning
 Hazardous Statement: H302
 Risk Statement: 22
 Safety Statement: 24/25

BARIUM CHLORIDE DIHYDRATE 99% AR

Barium Dichloride

Product Code.	00338	Grade	AR
Purity	99%	CAS No.	10326-27-9
Molecular Formula	BaCl2.2H2O	Molecular Weight	244.28
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	5 - 8 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	963°C	Boiling point [°C]	1560°C
Density [g/cm3]	3.86	Solubility in water [% weight]	31 g/100 g water @ 0C		

Packaging



Specification

Appearance	White crystalline powder or crystals or chunks
Assay	Min 99.0%
Insoluble matter	Max 0.005%

Oxidizing substances	Max 0.005%
Loss on dryig (at 150°C)	14.0-16.0%
pH (5% w/v solution in water; 25°C)	5.2-8.2
Calcium (Ca)	Max 0.05%
Iron (Fe)	Max 0.0002%
Heavy metal (as Pb)	Max 0.0005%
Potassium (K)	Max 0.0025%
Sodium (Na)	Max 0.005%
Strontium (Sr)	Max 0.1%

Safety Information and Hazard Symbols


Symbol: GHS06 Signal Word: Danger UN No.: 1564 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H332 Precaution Statement: P301 + P310 Risk Statement: 20-25 Safety Statement: 45

BARIUM CHLORIDE DIHYDRATE 99% EXTRAPURE

Barium Dichloride

Product Code.	0337A	Grade	Extrapure
Purity	99%	CAS No.	10326-27-9
Molecular Formula	BaCl2.2H2O	Molecular Weight	244.28
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	5 - 8 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	963°C	Boiling point [°C]	1560°C
Density [g/cm3]	3.86	Solubility in water [% weight]	31 g/100 g water @ 0C		

Packaging



Specification

Appearance	White crystalline powder or crystals or chunks
Assay (ex Cl; as BaCl2.2H2O)	Min 99%
Heavy metal (as Pb)	Max 0.001%

Iron (Fe)

Max 0.001%

Safety Information and Hazard Symbols



Symbol: GHS06

Signal Word: Danger

UN No.: 1564

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H301-H332

Precaution Statement: P301 + P310

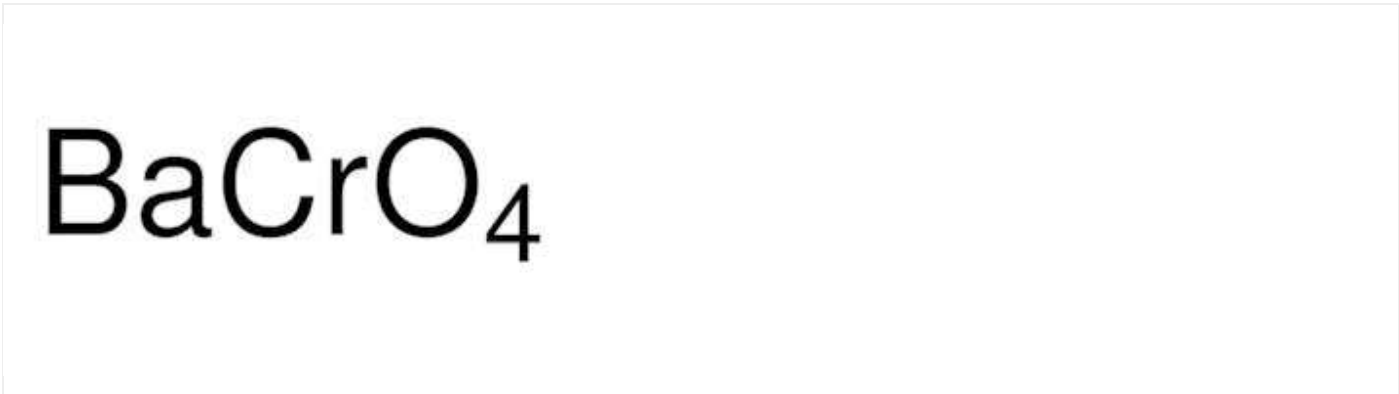
Risk Statement: 20-25

Safety Statement: 45

BARIUM CHROMATE 98% EXTRAPURE

Barium Chromate Oxide; Chromic acid barium salt

Product Code.	02913	Grade	
Purity	98%	CAS No.	10294-40-3
Molecular Formula	BaCrO4	Molecular Weight	253.32
H.S.Code	2841.50900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder	Melting point/ Freezing point [°C]	210 °C
Density [g/cm3]	4.498	Solubility in water [% weight]	Slightly soluble		

Packaging



Specification

Appearance	Yellow powder
Assay	Min 98.0%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS07

Signal Word: Danger

UN No.: 1479

IMCO Class No.: 5.1

Packing Group: II

Hazardous Statement: H272-H302-H332

Precaution Statement: P210-P220-P221-P261-P301 + P312 + P330-P370 + P378

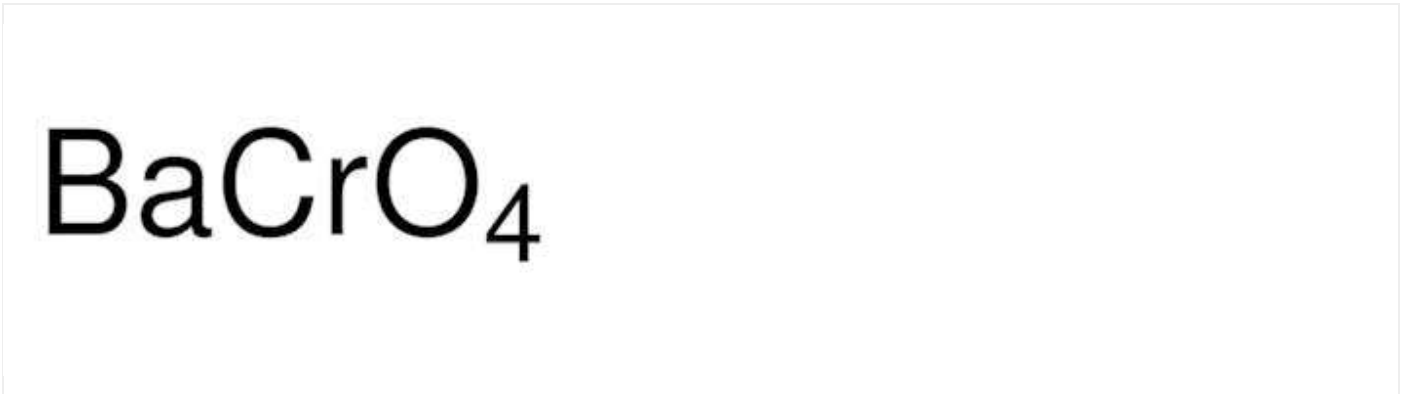
Risk Statement: 8-20/22

Safety Statement: 28

BARIUM CHROMATE 99% AR

Barium Chromate Oxide; Chromic acid barium salt

Product Code.	00340	Grade	
Purity	99%	CAS No.	10294-40-3
Molecular Formula	BaCrO4	Molecular Weight	253.32
H.S.Code	2841.50900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder	Melting point/ Freezing point [°C]	210 °C
Density [g/cm3]	4.498	Solubility in water [% weight]	Slightly soluble		

Packaging



Specification

Appearance	Yellow powder
Assay	Min 99%
Soluble chromates (as CrO3)	Max 0.05%
Insoluble matter in HCl	Max 0.1%
Iron (Fe)	Max 0.002%

Chloride (Cl)

Max 0.01%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS07

Signal Word: Danger

UN No.: 1479

IMCO Class No.: 5.1

Packing Group: II

Hazardous Statement: H272-H302-H332

Precaution Statement: P210-P220-P221-P261-P301 + P312 + P330-P370 + P378

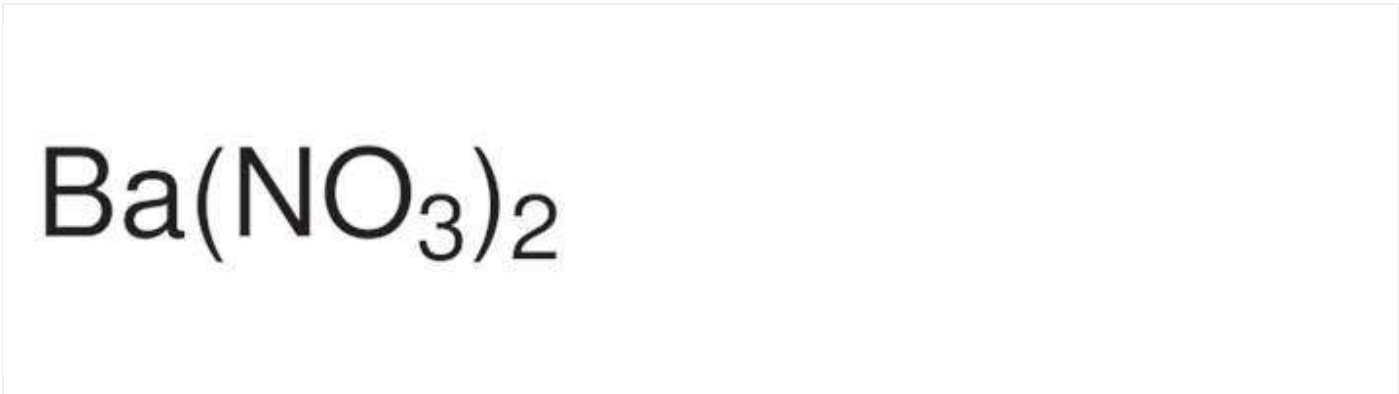
Risk Statement: 8-20/22

Safety Statement: 28

BARIUM NITRATE 98.5% EXTRAPURE

Barium dinitrate; Nitric acid barium salt; Nitrobarite; Barium (II) Nitrate

Product Code.	00343	Grade	Extrapure
Purity	98.5%	CAS No.	10022-31-8
Molecular Formula	Ba(NO3)2	Molecular Weight	261.32
H.S.Code	2834.29300	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	592°C	Density [g/cm3]	3.23	Solubility in water [% weight]	8.7 grams/100 g water @ 200C

Packaging



Specification

Appearance	White crystalline powder
Assay	Min 98.5%
Chloride (Cl)	Max 0.005%
Substance not precipitated by dilute H2SO4 (as SO4)	Max 0.2%

Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.002%

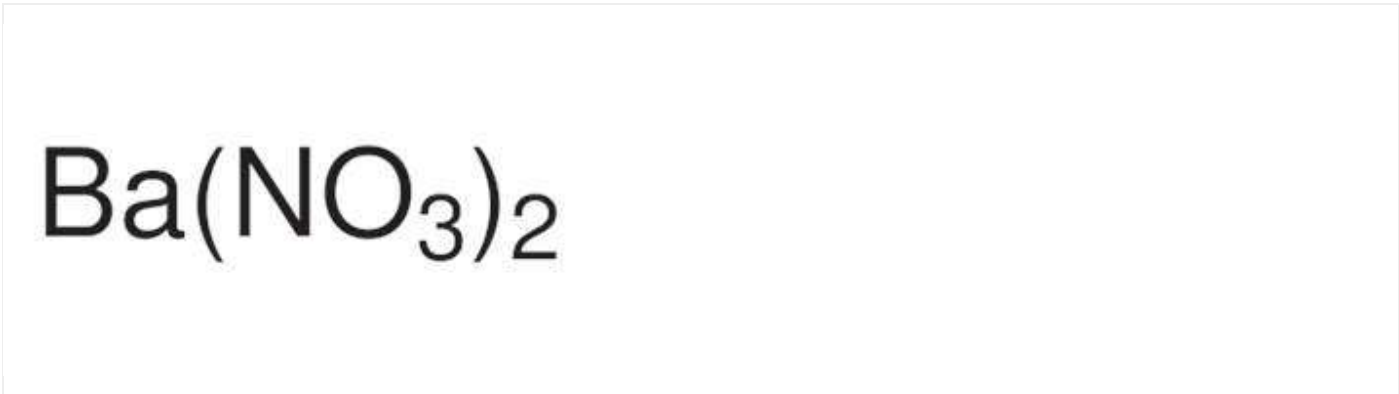
Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1446 IMCO Class No.: 5.1,6.1 Packing Group: II Hazardous Statement: H272-H302-H332 Precaution Statement: P220

BARIUM NITRATE 99% AR

Barium dinitrate; Nitric acid barium salt; Nitrobarite; Barium (II) Nitrate

Product Code.	00344	Grade	AR
Purity	99%	CAS No.	10022-31-8
Molecular Formula	Ba(NO3)2	Molecular Weight	261.32
H.S.Code	2834.29300	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	592°C	Density [g/cm3]	3.23	Solubility in water [% weight]	8.7 grams/100 g water @ 200C

Packaging



Specification

Appearance	White crystalline powder.
Assay (complexometric)	Min 99.0% Ba(NO3)2
pH (5% solution in water; 25°C)	5.0 - 8.0
Insoluble matter	Max 0.01%

Chloride (Cl)	Max 0.0005%
Calcium (Ca)	Max 0.05%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.005%
Strontium (Sr)	Max 0.1%
Heavy metals (by ICP-OES)	Max 0.0005%
Iron (Fe)	Max 0.0002%

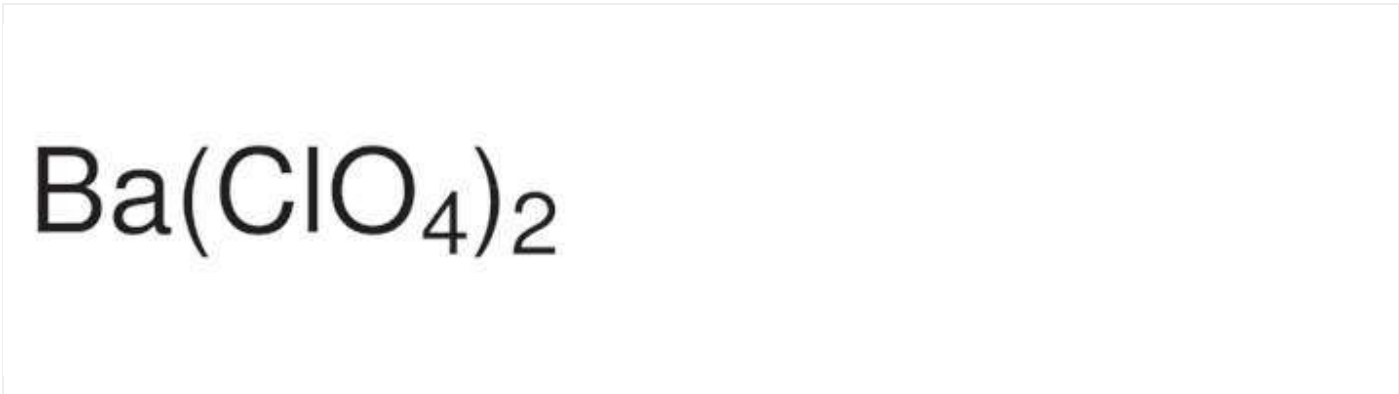
Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1446 IMCO Class No.: 5.1,6.1 Packing Group: II Hazardous Statement: H272-H302-H332 Precaution Statement: P220

BARIUM PERCHLORATE ANHYDROUS 97% AR

Barium diperchlorate; Perchloric acid barium salt

Product Code.	00347	Grade	
Purity	97%	CAS No.	13465-95-7
Molecular Formula	BaCl2O8	Molecular Weight	336.24
H.S.Code	2829.19900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White to off white	Odour	Odorless
Melting point/ Freezing point [°C]	505 °C	Flash point [°C]	21 °C	Density [g/cm3]	0.908
Solubility in water [% weight]	Soluble in water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 1.		

Packaging



Specification

Appearance	White to off-white powder
Assay (as Ba(ClO ₄) ₂)	Min 97%

Substance insoluble in water	Max 0.1%
Substance insoluble in methanol	Max 0.1%
Chloride (Cl)	Max 0.1%
Heavy metal (as Pb)	Max 0.001%
Iron (Fe)	Max 0.001%
Nickel (Ni)	Max 0.001%

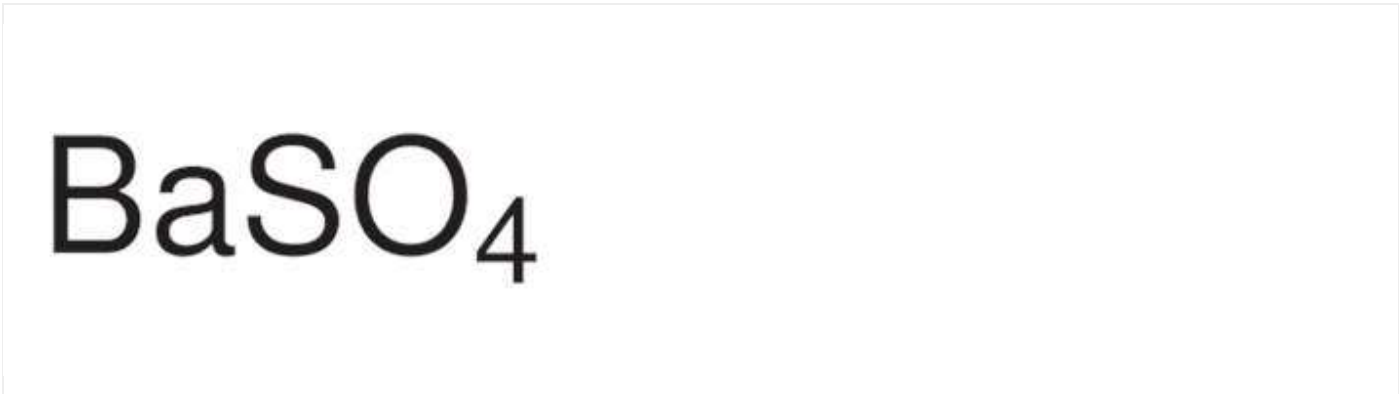
Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1447 IMCO Class No.: 5.1,6.1 Packing Group: II Hazardous Statement: H271-H302-H332 Precaution Statement: P220 Risk Statement: 9-20/22 Safety Statement: 27

BARIUM SULPHATE 97% EXTRAPURE

Baryte

Product Code.	00350	Grade	Extrapure
Purity	97%	CAS No.	7727-43-7
Molecular Formula	BaSO4	Molecular Weight	233.39
H.S.Code	2833.27000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	pH value	7
Melting point/ Freezing point [°C]	1580°C	Boiling point [°C]	1600°C	Density [g/cm3]	4.5
Solubility in water [% weight]	Insoluble in water				

Packaging



Specification

Appearance	Fine, white, odorless, tasteless, bulky powder, free from grittiness
Assay	Min 97.0%
Soluble barium compounds	Max 0.005%
Chloride (Cl)	Max 0.05%

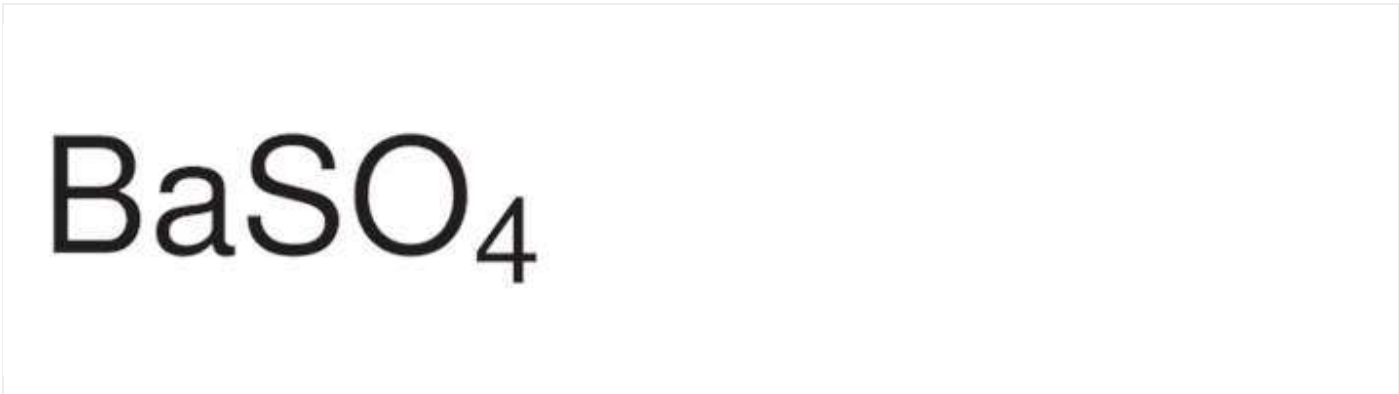
Sulphide (S)	Max 0.05 µg/g
Arsenic (As)	Max 0.0005%
Heavy metal (as Pb)	Max 0.001%
Loss on ignition	Max 2%

Safety Information and Hazard Symbols

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BARIUM SULPHATE 97.5% AR
(Confirms to IP, BP, USP) Baryte

Product Code.	00351	Grade	
Purity	97.5%	CAS No.	7727-43-7
Molecular Formula	BaSO4	Molecular Weight	233.39
H.S.Code	2833.27000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	pH value	7
Melting point/ Freezing point [°C]	1580°C	Boiling point [°C]	1600°C	Density [g/cm3]	4.5
Solubility in water [% weight]	Insoluble in water				

Packaging



Specification

Appearance	Fine, white, odorless, tasteless, bulky powder, free from grittiness
Assay (as BaSO4)	97.5 -100.5%
Solubility	Practically insoluble in water, in organic solvents, and in solutions of acids and of alkalies
Identifications	To comply IP, BP, USP tests

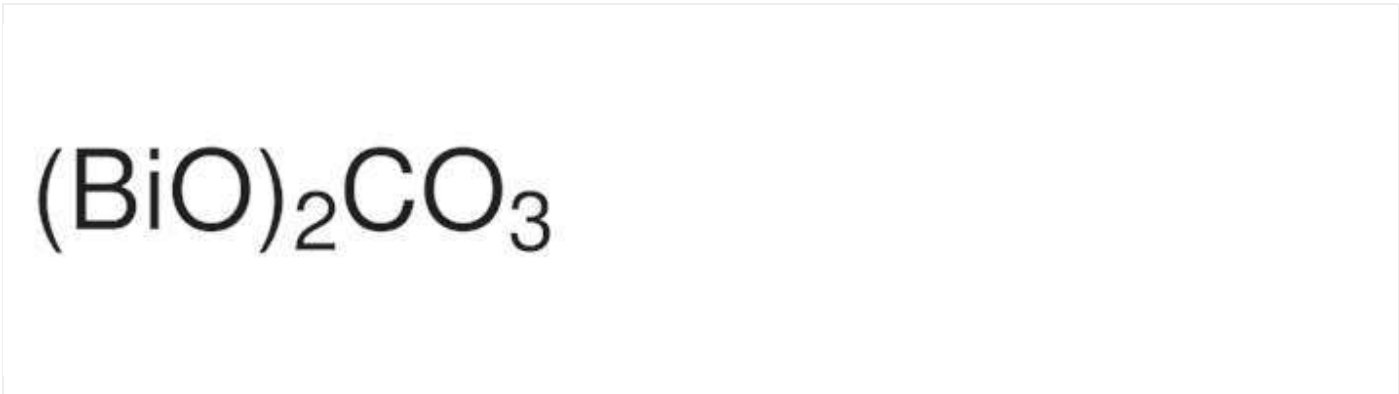
Acidity or alkalinity	To comply IP, BP tests
pH (10% w/w solution)	3.5 –10.0
Acid soluble matter	Max 0.3%
Oxidisable sulfur compounds	To comply BP test
Soluble barium salts	Max 0.001% (to comply IP test)
Phosphate (PO4)	To comply IP tests
Heavy metal (as Pb)	Max 0.001%
Sulphide (S)	Max 0.5 µg/g (to comply IP test)
Arsenic (As)	Max 0.0002%
Loss on ignition (at 600 ± 50°C)	Max 2.0 %
Bulkiness	To comply IP tests

Safety Information and Hazard Symbols

BISMUTH CARBONATE (BASIC) EXTRA PURE

Bismuth subcarbonate; Bismuth(III) carbonate basic

Product Code.	00426	Grade	Extrapure
Purity		CAS No.	5892-10-4
Molecular Formula	(BiO) ₂ CO ₃	Molecular Weight	509.97
H.S.Code	2836.99900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Density [g/cm3]	6.86	Solubility in water [% weight]	Insoluble in water		

Packaging



Specification

Appearance	White or yellowish white powder
Assay (as Bi)	80-82%
Insoluble matter in HNO ₃	Max 0.05%
Loss on drying (at 105°C)	Max 1.0%
Chloride (Cl)	Max 0.05%

Nitrate (NO3)	Max 0.4%
Sulphate (SO4)	Max 0.1%
Alkali & alkaline earth metals	Max 1.0%
Silver (Ag)	Max 0.0025%
Arsenic (As)	Max 0.0005%
Copper (Cu)	Max 0.005%
Iron (Fe)	Max 0.01%
Lead (Pb)	Max 0.002%

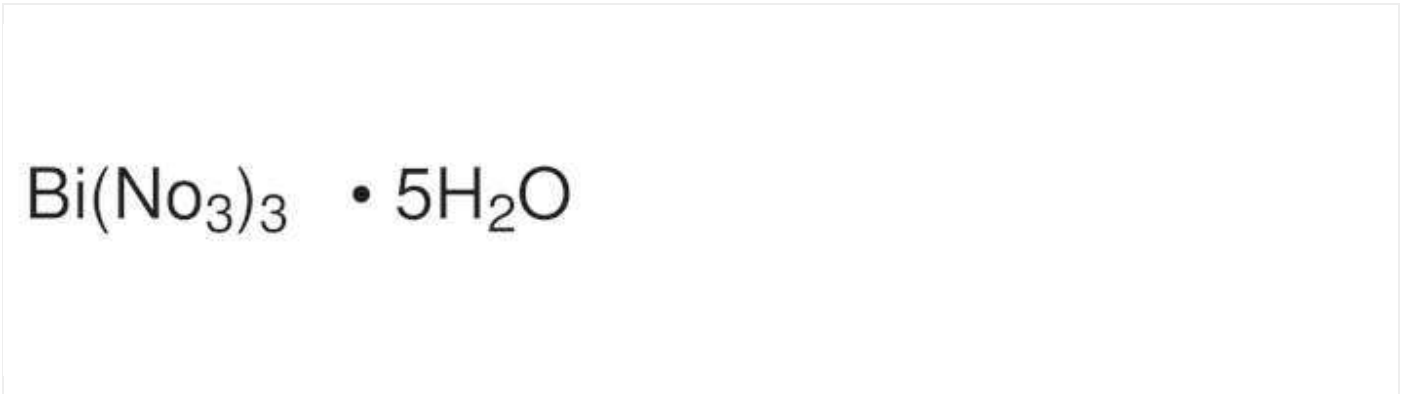
Safety Information and Hazard Symbols

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BISMUTH NITRATE PENTAHYDRATE 98% AR

Bismuth trinitrate pentahydrate; Bismuth(III) nitrate pentahydrate

Product Code.	00430	Grade	
Purity	98%	CAS No.	10035-06-0
Molecular Formula	Bi(NO3)3.5H2O	Molecular Weight	485.07
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White	Odour	Slight nitric acid odor
Melting point/ Freezing point [°C]	30 °C	Boiling point [°C]	75 - 80 °C	Initial boiling point [°C]	75 °C
Final boiling point [°C]	80 °C	Density [g/cm3]	2.83	Solubility in water [% weight]	Slowly decomposes in water to form subnitrate

Packaging



Specification

Appearance	White crystalline powder
Assay (ex Bi)	Min 98%

Chloride (Cl)	Max 0.005%
Sulphate (SO ₄)	Max 0.002%
Ammonium (NH ₄)	Max 0.003%
Arsenic (As)	Max 0.0005%
Lead (Pb)	Max 0.005%
Calcium (Ca)	Max 0.005%
Iron (Fe)	Max 0.002%
Copper (Cu)	Max 0.002%
Silver (Ag)	Max 0.001%
Zinc (Zn)	Max 0.001%
Substance not precipitated by H ₂ S (as SO ₄)	Max 0.5%

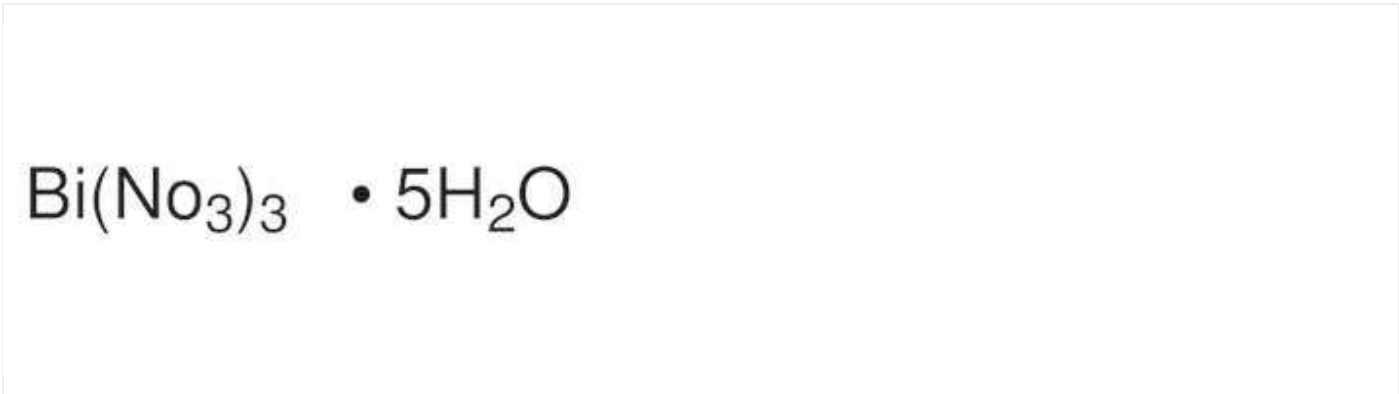
Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1477 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

BISMUTH NITRATE PENTAHYDRATE 98% EXTRAPURE

Bismuth trinitrate pentahydrate; Bismuth(III) nitrate pentahydrate

Product Code.	00429	Grade	Extrapure
Purity	98%	CAS No.	10035-06-0
Molecular Formula	Bi(NO3)3.5H2O	Molecular Weight	485.07
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White	Odour	Slight nitric acid odor
Melting point/ Freezing point [°C]	30 °C	Boiling point [°C]	75 - 80 °C	Initial boiling point [°C]	75 °C
Final boiling point [°C]	80 °C	Density [g/cm3]	2.83	Solubility in water [% weight]	Slowly decomposes in water to form subnitrate

Packaging



Specification

Appearance	White crystalline powder
Assay (ex Bi)	Min 98.0%

Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.02%
Arsenic (As)	Max 0.0005%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1477 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

BISMUTH OXYCARBONATE

Bismuth Subcarbonate

Product Code.	00432	Grade	
Purity	Min. 80-82%	CAS No.	5892-10-4
Molecular Formula	(BiO)2CO3	Molecular Weight	509.97
H.S.Code	28369990.00000	Shelf Life	

Physical Properties

Physical State at 20 deg C	Solid	Color	White Powder	Odour	Odourless
Desity [g/cm3]	6.86	Solubility in water [%weight]	Insoluble in water		

Packaging



Specification

Appearance	White or yellowish powder
Assay (as Bi)	80-82%
Insoluble matter in HNO3	Max 0.05%
Loss on drying (at 105 deg C)	Max 0.1%
Chloride (Cl)	Max 0.05%
Nitrate (NO3)	Max 0.4%
Sulphate (SO4)	Max 0.1%
Alkali & alkaline earth metals	Max 1.0%
Silver (Ag)	Max 0.0025%
Arsenic (As)	Max 0.0005%
Copper (Cu)	Max 0.005%

Iron (Fe)	Max 0.1%
Lead (Pb)	Max 0.002%

Safety Information and Hazard Symbols

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BISMUTH OXYCHLORIDE 98% EXTRAPURE

Bismuth (III) Oxychloride; Bismuth(III) chloride oxide; Bismuthyl(III) chloride; Chlorobismuth oxide ; [Bismuth Chloride (Oxy)]

Product Code.	00433	Grade	
Purity	98%	CAS No.	7787-59-9
Molecular Formula	BiClO	Molecular Weight	260.43
H.S.Code	2827.39900	Shelf Life	60 Months

BiOCl

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Melting point/ Freezing point [°C]	500°C
Density [g/cm3]	7.72	Solubility in water [% weight]	Insoluble in water		

Packaging



Specification

Appearance	A white powder.
Assay	Min 98%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

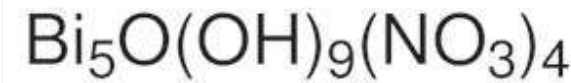
Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

BISMUTH SUBNITRATE EXTRAPURE

Bismuth Oxynitrate

Product Code.	00435	Grade	
Purity	Min. 71%	CAS No.	1304-85-4
Molecular Formula	Bi(O)NO3	Molecular Weight	286.98
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	500 °C	Density [g/cm3]	4.928	Solubility in water [% weight]	Insoluble in water

Packaging



Specification

Appearance	White powder.
Assay (as Bi)	Min 71%
Chloride (Cl)	Max 0.005%
Loss on drying (at 105°C)	Max 3.0%

Substance not precipitated by ammonia (as SO ₄)	Max 0.5%
Sulphate (SO ₄)	Max 0.002%
Arsenic (As)	Max 0.0001%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1477 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

BISMUTH SULPHATE 90% EXTRAPURE

Bismuth trisulfate; Dibismuth trisulfate ; Bismuth (III) Sulphate

Product Code.	00436	Grade	
Purity	90%	CAS No.	7787-68-0
Molecular Formula	Bi2(SO4)3	Molecular Weight	706.15
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	405°C	Density [g/cm3]	5.08	Solubility in water [% weight]	Decomposes

Packaging



Specification

Appearance	White powder.
Assay (ex Bi; as Bi2(SO4)3)	Min 90%
Chloride (Cl)	Max 0.01%
Nitrate (NO3)	Max 0.025%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.01%

Safety Information and Hazard Symbols

BISMUTH TRICHLORIDE 97% EXTRAPURE

Bismuth (III) Chloride; Trichlorobismuth ; Bismuth Trichloride

Product Code.	00427	Grade	
Purity	97%	CAS No.	7787-60-2
Molecular Formula	BiCl3	Molecular Weight	315.34
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Hydrochloric acid odor
Melting point/ Freezing point [°C]	230 - 232 °C	Boiling point [°C]	447 °C	Density [g/cm3]	4.75
Solubility in water [% weight]	Decomposes				

Packaging



Specification

Appearance	White to yellowish crystalline powder
Assay	Min 97%
Cadmium (Cd)	Max 0.005%
Loss on dryig (at 110°C)	Max 3.0%
Copper (Cu)	Max 0.005%
Sulphate (SO4)	Max 0.05%
Iron (Fe)	Max 0.01%
Lead (Pb)	Max 0.005%
Zinc (Zn)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H315-H319

Precaution Statement: P305 + P351 + P338

CADMIUM CARBONATE EXTRAPURE

Otavite

Product Code.	00600	Grade	
Purity		CAS No.	513-78-0
Molecular Formula	CdCO3	Molecular Weight	172.41
H.S.Code	2836.99900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Density [g/cm3]	4.26	Solubility in water [% weight]	Insoluble in cold water		

Packaging



Specification

Appearance	Colorless crystals or White powder
Cadmium (Cd)	62-66%
Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.01%

Safety Information and Hazard Symbols

The image shows two GHS hazard symbols side-by-side. The first is a red diamond with a black exclamation mark, representing 'Warning'. The second is a red diamond with a black silhouette of a dead tree and a fish, representing 'Hazardous to the environment'.
Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H312-H332-H410 Precaution Statement: P273-P280-P501

CADMIUM CHLORIDE MONOHYDRATE 98% EXTRAPURE

Cadmium dichloride; Dichlorocadmium

Product Code.	00602	Grade	
Purity	98%	CAS No.	35658-65-2
Molecular Formula	CdCl2H2O	Molecular Weight	201.32
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Density [g/cm3]	3.33	Solubility in water [% weight]	Freely soluble		

Packaging



Specification

Appearance	A white crystalline powder
Assay (argentometric)	Min 98%
Sulphate (SO4)	Max 0.02%
Lead (Pb)	Max 0.005%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.001%
Zinc (Zn)	Max 0.02%
Substance not precipitated by H2S (as SO4)	Max 0.2%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS08, GHS09

Signal Word: Danger

UN No.: 2570

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H301-H330-H340-H350-H360FD-H372-H410

Precaution Statement: P201-P260-P273-P284-P301 + P310-P310

CADMIUM CHLORIDE MONOHYDRATE 99% AR

Cadmium dichloride; Dichlorocadmium

Product Code.	00603	Grade	
Purity	98%	CAS No.	35658-65-2
Molecular Formula	CdCl2H2O	Molecular Weight	201.32
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Density [g/cm3]	3.33	Solubility in water [% weight]	Freely soluble		

Packaging



Specification

Appearance	A white crystalline powder
Assay	Min 98%
Insoluble matter in water	Max 0.005%
Ammonium (NH4)	Max 0.005%
Lead (Pb)	Max 0.001%
Iron (Fe)	Max 0.001%
Calcium (Ca)	Max 0.01%
Potassium (K)	Max 0.01%
Copper (Cu)	Max 0.0005%
Magnesium (Mg)	Max 0.005%
Sodium (Na)	Max 0.01%

Zinc (Zn)	Max 0.01%
Nitrate (NO3)	Max 0.005%
Sulphate (SO4)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 2570 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H330-H340-H350-H360FD-H372-H410 Precaution Statement: P201-P260-P273-P284-P301 + P310-P310

CADMIUM IODIDE 99% EXTRAPURE

Cadmium diiodide

Product Code.	00604	Grade	Extrapure
Purity	99%	CAS No.	7790-80-9
Molecular Formula	CdI ₂	Molecular Weight	366.22
H.S.Code	2827.60900	Shelf Life	36 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	388 °C	Boiling point [°C]	787 °C	Vapour density	8
Density [g/cm ³]	5.67	Solubility in water [% weight]	Soluble in water		

Packaging



Specification

Appearance	White to off-white powder or crystals or scales
Assay (ex I)	Min 99.0%
Sulphate (SO ₄)	Max 0.01%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.01%

Safety Information and Hazard Symbols

Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 2570 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H331-H351-H373-H410 Precaution Statement: P261-P273-P281-P301 + P310-P311-P501

CADMIUM NITRATE TETRAHYDRATE 99% AR

Nitric acid cadmium salt tetrahydrate

Product Code.	00607	Grade	
Purity	99%	CAS No.	10022-68-1
Molecular Formula	Cd(NO3)2.4H2O	Molecular Weight	308.47
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Melting point/ Freezing point [°C]	59.5°C
Solubility in water [% weight]	Soluble in water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2		

Packaging



Specification

Appearance	Colorless crystals
Assay	Min 99%
Insoluble matter in water	Max 0.005%
Melting point	About 59 deg C
Chloride (Cl)	Max 0.001%
Sulphate (SO4)	Max 0.002%
Lead (Pb)	Max 0.003%
Copper (Cu)	Max 0.001%
Iron (Fe)	Max 0.001%
Zinc (Zn)	Max 0.001%

Calcium (Ca)	Max 0.005%
Sodium (Na)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07, GHS09 Signal Word: Danger UN No.: 3087 IMCO Class No.: 5.1(6.1) Packing Group: II Hazardous Statement: H272-H302-H312-H332-H410 Precaution Statement: P220-P273-P280-P501

CADMIUM NITRATE TETRAHYDRATE 99% EXTRAPURE

Nitric acid cadmium salt tetrahydrate

Product Code.	00606	Grade	Extrapure
Purity	99%	CAS No.	10022-68-1
Molecular Formula	Cd(NO3)2.4H2O	Molecular Weight	308.47
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Melting point/ Freezing point [°C]	59.5°C
Solubility in water [% weight]	Soluble in water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2		

Packaging



Specification

Appearance	White powder or crystal or chunks
Assay	Min 99%
Insoluble matter in water	Max 0.01%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.01%
Iron (Fe)	Max 0.001%
Potassium (K)	Max 0.002%
Sodium (Na)	Max 0.01%
Zinc (Zn)	Max 0.002%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS07, GHS09

Signal Word: Danger

UN No.: 3087

IMCO Class No.: 5.1(6.1)

Packing Group: II

Hazardous Statement: H272-H302-H312-H332-H410

Precaution Statement: P220-P273-P280-P501

CADMIUM OXIDE 99.7% AR

Product Code.	00609	Grade	
Purity	99.5%	CAS No.	1306-19-0
Molecular Formula	CdO	Molecular Weight	128.41
H.S.Code	2825.90200	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Dark brown	Odour	Odorless
Melting point/ Freezing point [°C]	950°C	Boiling point [°C]	1559°C	Density [g/cm3]	8.15
Solubility in water [% weight]	Insoluble in water				

Packaging



Specification

Appearance	Dark brown crystalline powder
Assay	Min 99.5%
Copper (Cu)	Max 0.0005%
Iron (Fe)	Max 0.005%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.03%
Lead (Pb)	Max 0.005%
Zinc (Zn)	Max 0.001%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS08, GHS09

Signal Word: Danger

UN No.: 2570

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H330-H341-H350-H361fd-H372-H410

Precaution Statement: P201-P260-P273-P281-P284-P310

CADMIUM SULPHATE OCTAHYDRATE 98% EXTRAPURE

Product Code.	00610	Grade	Extrapure
Purity	98%	CAS No.	7790-84-3
Molecular Formula	3CdSO4.8H2O	Molecular Weight	769.52
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Density [g/cm3]	3.08	Solubility in water [% weight]	Freely soluble		

Packaging



Specification

Appearance	White crystalline powder
Assay (as CdSO4.8/3 H2O; complexometric)	Min 98.0%
Chloride (Cl)	Max 0.005%
Arsenic (As)	Max 0.0005%
Lead (Pb)	Max 0.005%
Iron (Fe)	Max 0.001%
Copper (Cu)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS08, GHS09

Signal Word: Danger

UN No.: 2570

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H301-H330-H340-H350-H360-H372-H410

Precaution Statement: P201-P260-P273-P284-P301 + P310-P310

CADMIUM SULPHATE OCTAHYDRATE 99% AR

Product Code.	00611	Grade	AR
Purity	99%	CAS No.	7790-84-3
Molecular Formula	3CdSO4.8H2O	Molecular Weight	769.52
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Density [g/cm3]	3.08	Solubility in water [% weight]	Freely soluble		

Packaging

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Specification

Appearance	White crystalline powder
Assay	99 - 102%
Insoluble matter	Max 0.005%
pH (5% solution in water)	3.0 - 6.0
Total nitrogen (N)	Max 0.0005%
Chloride (Cl)	Max 0.001%
Arsenic (As)	Max 0.00005%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.001%
Iron (Fe)	Max 0.0005%
Lead (Pb)	Max 0.002%
Sodium (Na)	Max 0.005%
Zinc (Zn)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS08, GHS09

Signal Word: Danger

UN No.: 2570

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H301-H330-H340-H350-H360-H372-H410

Precaution Statement: P201-P260-P273-P284-P301 + P310-P310

CALCIUM BROMIDE HYDRATE 82% EXTRAPURE

Product Code.	00622	Grade	Extrapure
Purity	82%	CAS No.	71626-99-8
Molecular Formula	Br2Ca.xH2O	Molecular Weight	199.90
H.S.Code	2827.59900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Density [g/cm3]	3.35				

Packaging



Specification

Appearance	White crystalline powder and/or chunks
Assay (as CaBr2; complexometric)	Min 82.0%
Acidity or alkalinity	Passes test
Solubility (10% in water)	Clear colorless to slightly hazy

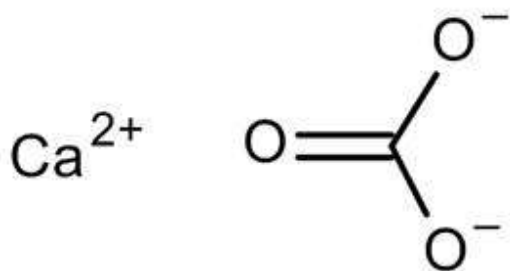
Safety Information and Hazard Symbols

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CALCIUM CARBONATE 98% EXTRAPURE

Confirming to IP, BP (Calcite Powder) (precipitate Fine Powder)

Product Code.	00634	Grade	Extrapure
Purity	98%	CAS No.	471-34-1
Molecular Formula	CaCO ₃	Molecular Weight	100.09
H.S.Code	2836.50000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	8	Melting point/ Freezing point [°C]	800 °C	Density [g/cm ³]	2.93
Solubility in water [% weight]	Insoluble in water				

Packaging



Specification

Appearance	White powder
Assay (complexometric; on dried basis)	98.0-100.5%
Identification	Passes test
Substance insoluble in acetic acid	Max 0.2%

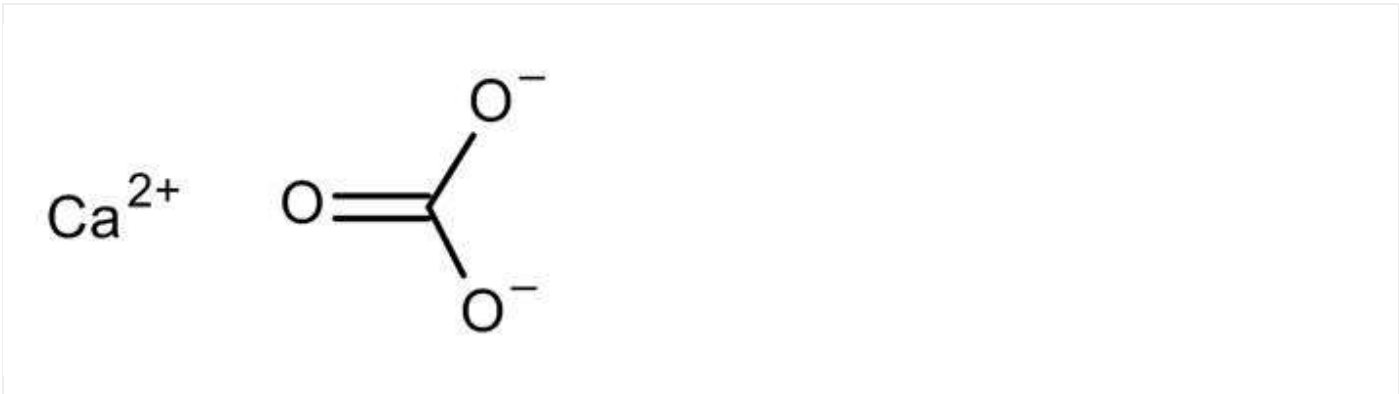
Chloride (Cl)	Max 0.025%
Sulphate (SO4)	Max 0.3%
Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.02%
Barium (Ba)	Passes test
Arsenic (As)	Max 0.0004%
Magnesium (as alkali metals)	Max 1.0%
Loss on drying (200°C; 4 hrs)	Max 2.0%

Safety Information and Hazard Symbols

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CALCIUM CARBONATE PRECIPITATED 99% AR

Product Code.	00635	Grade	
Purity	99%	CAS No.	471-34-1
Molecular Formula	CaCO3	Molecular Weight	100.09
H.S.Code	2836.50000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	8	Melting point/ Freezing point [°C]	800 °C	Density [g/cm3]	2.93
Solubility in water [% weight]	Insoluble in water				

Packaging



Specification

Appearance	White powder
Assay	Min 99%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.02%

Heavy metal (as Pb)	Max 0.001%
Iron (Fe)	Max 0.02%
Arsenic (As)	Max 0.0003%

Safety Information and Hazard Symbols

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CALCIUM CHLORIDE DIHYDRATE 98% EXTRAPURE

Confirm to IP, BP

Product Code.	00636	Grade	Extrapure
Purity	98%	CAS No.	10035-04-8
Molecular Formula	CaCl ₂ .2H ₂ O	Molecular Weight	147.02
H.S.Code	2827.20000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	5 - 8	Melting point/ Freezing point [°C]	176 °C	Initial boiling point [°C]	> 1600°C
Vapour pressure [20°C]	0.01 hPa at 20 °C	Density [g/cm ³]	1.85	Solubility in water [% weight]	147 g/l at 20 °C - completely soluble

Packaging



Specification

Appearance	White hygroscopic crystalline powder
Assay (as CaCl ₂ .2H ₂ O)	98.0 - 103.0%
Identity (as per IP, BP)	Passes test
Solubility	Freely soluble in water, soluble in ethanol 96%
Appearance of solution	Passes test
Acidity or alkalinity	Passes IP, BP test
Arsenic (As)	Max 0.0003%
Aluminium and phosphate (Al, PO ₄)	Passes test
Sulphate (SO ₄)	Max 0.03%

Barium (Ba)	Passes test
Iron (Fe)	Max 0.001%
Heavy metal (as Pb)	Max 0.002%
Magnesium and alkali earth metals	Max 0.5%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

CALCIUM CHLORIDE DIHYDRATE 99% AR

(Confirms to USP)

Product Code.	00637	Grade	
Purity	99%	CAS No.	10035-04-8
Molecular Formula	CaCl2.2H2O	Molecular Weight	147.02
H.S.Code	2827.20000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	5 - 8	Melting point/ Freezing point [°C]	176 °C	Initial boiling point [°C]	> 1600°C
Vapour pressure [20°C]	0.01 hPa at 20 °C	Density [g/cm3]	1.85	Solubility in water [% weight]	147 g/l at 20 °C - completely soluble

Packaging



Specification

Appearance	White hygroscopic crystalline powder
Assay (complexometric)	99.0-105.0%
Solubility	Freely soluble in water, in alcohol, and in boiling alcohol; very soluble in boiling water
Identification	To comply USP tests
pH (5% solution in water; 25°C)	4.5 - 8.5
Insoluble matter (10% in water)	Max 0.01%
Sulphate (SO4)	Max 0.01%
Ammonium (NH4)	Max 0.005%
Heavy metal (as Pb)	Max 0.0005%

Iron, aluminium & phosphate	To comply USP test
Barium (Ba)	Max 0.005%
Iron (Fe)	Max 0.001%
Potassium (K)	Max 0.01%
Magnesium (Mg)	Max 0.01%
Magnesium & alkali salts	Max 0.5%
Sodium (Na)	Max 0.02%
Strontium (Sr)	Max 0.1%
Oxidizing substances (as NO3)	Max 0.003%

Safety Information and Hazard Symbols



Symbol: GHS07

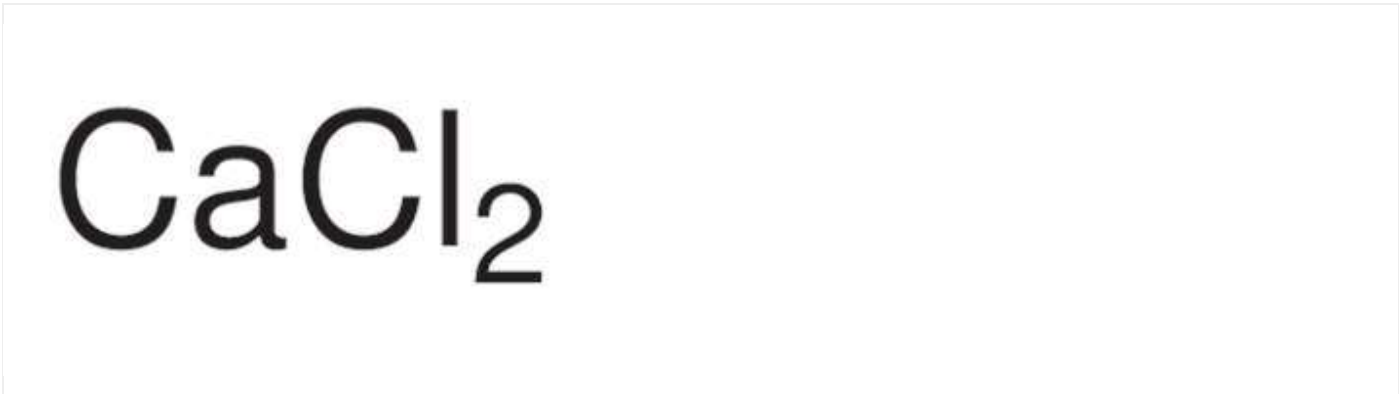
Signal Word: Warning

Hazardous Statement: H319

Precaution Statement: P305 + P351 + P338

CALCIUM CHLORIDE FUSED 90% EXTRAPURE

Product Code.	00639	Grade	
Purity	90%	CAS No.	10043-52-4
Molecular Formula	CaCl2	Molecular Weight	110.99
H.S.Code	2827.20000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	5 - 8	Melting point/ Freezing point [°C]	772	Initial boiling point [°C]	> 1600°C
Density [g/cm3]	2.174 g/cm3	Solubility in water [% weight]	745 g/L		

Packaging



Specification

Appearance	White hygroscopic lumps
Assay (Complexometric)	Min 90%
Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.002%

Sulphate (SO ₄)	Max 0.05%
Loss on drying	Max 10%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

CALCIUM FLUORIDE 97% EXTRAPURE

Fluorite; Fluorspar

Product Code.	00645	Grade	
Purity	97%	CAS No.	7789-75-5
Molecular Formula	CaF ₂	Molecular Weight	78.08
H.S.Code	2826.19900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	odorless
Melting point/ Freezing point [°C]	1403°C	Boiling point [°C]	2500°C	Density [g/cm ³]	3.18
Solubility in water [% weight]	Insoluble in water				

Packaging



Specification

Appearance	White powder
Assay (complexometric; on ignition at 500°C)	Min 97%
Chloride (Cl)	Max 0.05%
Sulphate (SO ₄)	Max 0.1%
Heavy metal (as Pb)	Max 0.05%
Iron (Fe)	Max 0.005%

Safety Information and Hazard Symbols

Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

CALCIUM NITRATE TETRAHYDRATE 98% EXTRAPURE

Product Code.	00654	Grade	Extrapure
Purity	98%	CAS No.	13477-34-4
Molecular Formula	Ca(NO3)2.4H2O	Molecular Weight	236.15
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
pH value	5.5 - 7.0	Melting point/ Freezing point [°C]	44 °C	Density [g/cm3]	1.86
Solubility in water [% weight]	121g in 100g of water				

Packaging



Specification

Appearance	Colorless to white crystals
Assay	Min 98%
pH (5% solution in water)	5.0 - 9.0
Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.02%
Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.001%
Substance not precipitated by ammonium oxalate (as SO4)	Max 0.3%

Safety Information and Hazard Symbols



Symbol: GHS03

Signal Word: Warning

UN No.: 1454

IMCO Class No.: 5.1

Packing Group: III

Hazardous Statement: H272

Precaution Statement: P220

CALCIUM NITRATE TETRAHYDRATE 99% AR

Product Code.	00655	Grade	AR
Purity	99-103%	CAS No.	13477-34-4
Molecular Formula	Ca(NO3)2.4H2O	Molecular Weight	236.15
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
pH value	5.5 - 7.0	Melting point/ Freezing point [°C]	44 °C	Density [g/cm3]	1.86
Solubility in water [% weight]	121g in 100g of water				

Packaging



Specification

Appearance	Colorless to white crystals
Assay (as Ca(NO3)2.4H2O)	99 - 103%
pH (5% solution in water; 25°C)	5.0 - 7.0
Insoluble matter in water	Max 0.005%
Nitrite (NO2)	Max 0.001%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.005%
Barium (Ba)	Max 0.01%
Iron (Fe)	Max 0.0005%
Lead (Pb)	Max 0.001%

Magnesium (Mg)	Max 0.05%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.02%
Strontium (Sr)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS03 Signal Word: Warning UN No.: 1454 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272 Precaution Statement: P220

CALCIUM OXIDE (LUMPS)

Lime; Quicklime

Product Code.	00656	Grade	
Purity	90%	CAS No.	1305-78-8
Molecular Formula	CaO	Molecular Weight	56.08
H.S.Code	2825.90900	Shelf Life	36 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	12.5 (1.65 g/L aq sol)	Melting point/ Freezing point [°C]	2.614 °C	Boiling point [°C]	2.850 °C
Density [g/cm3]	3.3				

Packaging



Specification

Appearance	White lumps
Assay	Min. 90.0%
Substance insoluble in HCl	Max. 0.1%
Chloride (Cl)	Max. 0.05%
Sulphate (SO4)	Max. 0.5%
Heavy metal (as Pb)	Max. 0.005%
Iron (Fe)	Max. 0.03%
Loss on ignition (at 800°C)	Max. 10.0%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07

Signal Word: Danger

UN No.: 1910

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H315-H318-H335

Precaution Statement: P261-P280-P305 + P351 + P338

CALCIUM OXIDE (POWDER) 90% EXTRAPURE

Lime; Quicklime

Product Code.	00658	Grade	Extrapure
Purity	90%	CAS No.	1305-78-8
Molecular Formula	CaO	Molecular Weight	56.08
H.S.Code	2825.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White	Odour	Odorless
pH value	12.5 (1.65 g/L aq sol)	Melting point/ Freezing point [°C]	2.614 °C	Boiling point [°C]	2.850 °C
Density [g/cm3]	3.3				

Packaging



Specification

Appearance	White to off white powder
Assay	Min 90.0%
Substance insoluble in HCl	Max 0.1%
Chloride (Cl)	Max 0.05%
Sulphate (SO4)	Max 0.5%
Heavy metal (as Pb)	Max 0.005%
Loss on ignition (at 800°C)	Max 10.0%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07

Signal Word: Danger

UN No.: 1910

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H315-H318-H335

Precaution Statement: P261-P280-P305 + P351 + P338

CALCIUM SULFATE 99%, ANHYDROUS, PURE

Product Code.	2914A	Grade	
Purity	99%	CAS No.	7778-18-9
Molecular Formula	CaO4S	Molecular Weight	136.14
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1450°C	Density [g/cm3]	2.96	Solubility in water [% weight]	0.24g in 100g of water

Packaging

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Specification

Appearance (Color)	Off-white
Appearance (Form)	Crystalline powder
Assay	>=98.5 %

Safety Information and Hazard Symbols

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CALCIUM SULPHATE ANHYDROUS 96% (DRIED) EXTRA PURE
ANHYDROUS (DRIED) FINE POWDER

Product Code.	02914	Grade	Extrapure
Purity	96%	CAS No.	7778-18-9
Molecular Formula	CaSO4	Molecular Weight	136.14
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1450°C	Density [g/cm3]	2.96	Solubility in water [% weight]	0.24g in 100g of water

Packaging



Specification

Appearance	White powder
Assay	Min 96%
Loss on ignition	Max 3%

Safety Information and Hazard Symbols

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CALCIUM SULPHATE DIHYDRATE 98% EXTRAPURE

(Precipitated Powder)

Product Code.	00664	Grade	
Purity	98%	CAS No.	10101-41-4
Molecular Formula	CaSO4.2H2O	Molecular Weight	172.17
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1450°C	Density [g/cm3]	2.32	Solubility in water [% weight]	Slight (0.1-1%)

Packaging



Specification

Appearance	White powder
Assay	98 - 101%
Insoluble matter in HCl	Max 0.02%
Loss on ignition (at 800°C; 4 hrs)	18 - 22%
Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.005%
Chloride (Cl)	Max 0.03%

Safety Information and Hazard Symbols

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CALCIUM SULPHATE DIHYDRATE 99% AR

(Precipitated Powder)

Product Code.	00665	Grade	
Purity	99%	CAS No.	10101-41-4
Molecular Formula	CaSO4.2H2O	Molecular Weight	172.17
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1450°C	Density [g/cm3]	2.32	Solubility in water [% weight]	Slight (0.1-1%)

Packaging



Specification

Appearance	White powder
Assay (as CaSO4.2H2O; complexometric)	99.0-102.0%
Substance insoluble in HCl	Max 0.01%
Carbonate	Passes test
Nitrate (NO3)	Passes test
Free acid (as H2SO4)	Max 0.01%
Free alkali (as Ca(OH)2)	Max 0.01%
Chloride (Cl)	Max 0.005%
Total nitrogen (N)	Max 0.001%
Iron (Fe)	Max 0.001%
Heavy metals (by ICP-OES)	Max 0.002%

Potassium (K)	Max 0.005%
Magnesium (Mg)	Max 0.01%
Sodium (Na)	Max 0.02%
Strontium (Sr)	Max 0.05%

Safety Information and Hazard Symbols

CHROMIUM (III) CHLORIDE HEXAHYDRATE 93% EXTRAPURE

Chromium trichloride hexahydrate, Hexaaquachromium(III) chloride ; (Chromium (III) Chloride

Product Code.	00799	Grade	Extrapure
Purity	93%	CAS No.	10060-12-5
Molecular Formula	CrCl3.6H2O	Molecular Weight	266.45
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Green-Black	Odour	Odorless
pH value	2.4	Melting point/ Freezing point [°C]	83 °C	Density [g/cm3]	1.76
Solubility in water [% weight]	58.5% @ 25°C				

Packaging

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Specification

Appearance	Dark green crystalline powder
Assay	Min 93.0%
pH (5% solution in water)	2.0 - 3.0
Sulphate (SO4)	Max 0.05%
Copper (Cu)	Max 0.001%
Iron (Fe)	Max 0.01%
Lead (Pb)	Max 0.005%
Substance not precepitated by NH3 (as SO4)	Max 0.2%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302

CHROMIUM (III) CHLORIDE HEXAHYDRATE 97% AR

Chromium trichloride hexahydrate, Hexaaquachromium(III) chloride ; (Chromium (III) Chloride)

Product Code.	00800	Grade	AR
Purity	97%	CAS No.	10060-12-5
Molecular Formula	CrCl3.6H2O	Molecular Weight	266.45
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Green-Black	Odour	Odorless
pH value	2.4	Melting point/ Freezing point [°C]	83 °C	Density [g/cm3]	1.76
Solubility in water [% weight]	58.5% @ 25°C				

Packaging

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Specification

Appearance	Dark Green crystalline powder
Assay	Min 97.0%
Insoluble matter	Max 0.01%
pH (5% solution in water; 25°C)	2.0 - 3.0
Sulphate (SO4)	Max 0.02%
Aluminium (Al)	Max 0.025%
Ammonium (NH4)	Max 0.01%
Iron (Fe)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302

CHROMIUM (III) OXIDE GREEN 98% EXTRAPURE

Chromia ; Chromium (III) Oxide Green

Product Code.	00802	Grade	
Purity	98%	CAS No.	1308-38-9
Molecular Formula	Cr2O3	Molecular Weight	151.99
H.S.Code	2819.90000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Green powder	Odour	Odorless
pH value	7.5	Melting point/ Freezing point [°C]	2435 °C	Boiling point [°C]	4000°C
Density [g/cm3]	5.21	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Green powder
Assay	Min 98.0%
Loss on ignition (at 800°C; 1 hr)	Max 2.0%

Safety Information and Hazard Symbols

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CHROMIUM TRIOXIDE 98% EXTRAPURE

Chromium(VI) oxide; Chromic anhydride ; Chromic Acid

Product Code.	00807	Grade	
Purity	98%	CAS No.	1333-82-0
Molecular Formula	CrO3	Molecular Weight	99.99
H.S.Code	2819.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Reddish brown	Odour	Odorless
Melting point/ Freezing point [°C]	196 °C	Density [g/cm3]	2.7	Solubility in water [% weight]	63g/100g water @ 200C
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 1				

Specification

Appearance	Reddish brown flakes
Assay (iodometric)	Min 98%
Chloride (Cl)	Max 0.1%
Sulphate (SO4)	Max 0.06%
Iron (Fe)	Max 0.01%
Potassium (K)	Max 0.1%
Sodium (Na)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS05, GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 1463 IMCO Class No.: 5.1,6.1,8 Packing Group: II Hazardous Statement: H271-H301-H311-H314-H317-H330-H334-H340-H350-H361f-H372-H410 Precaution Statement: P201-P220-P260-P273-P280-P284

COBALT (II) CHLORIDE HEXAHYDRATE 97% EXTRAPURE

Cobaltous chloride hexahydrate

Product Code.	00832	Grade	Extrapure
Purity	97%	CAS No.	7791-13-1
Molecular Formula	CoCl ₂ .6H ₂ O	Molecular Weight	237.93
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red crystals	Odour	Odorless
pH value	4.6	Melting point/ Freezing point [°C]	86°C	Boiling point [°C]	110°C
Density [g/cm ³]	1.92	Solubility in water [% weight]	76.7 g/100 cc water @ 0C		

Specification

Appearance	Deep red /Ruby red coloured crystals/crystalline powder.
Assay (complexometric)	97 - 102%
Nitrate (NO ₃)	Max 0.05%
Sulphate (SO ₄)	Max 0.05%
Iron (Fe)	Max 0.05%
Zinc (Zn)	Max 0.1%
Substance not precipitated by ammonium sulphide (as SO ₄)	Max 0.3%

Safety Information and Hazard Symbols

 
Symbol: GHS06, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H317-H334-H341-H350i-H360F-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

COBALT (II) CHLORIDE HEXAHYDRATE 98% AR

Cobaltous chloride hexahydrate

Product Code.	00833	Grade	AR
Purity	98%	CAS No.	7791-13-1
Molecular Formula	CoCl2.6H2O	Molecular Weight	237.93
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red crystals	Odour	Odorless
pH value	4.6	Melting point/ Freezing point [°C]	86°C	Boiling point [°C]	110°C
Density [g/cm3]	1.92	Solubility in water [% weight]	76.7 g/100 cc water @ 0C		

Packaging

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Specification

Appearance	Deep red or Ruby red color crystalline powder or crystals
Assay	98.0 - 102.0%
Insoluble matter	Max 0.01%
Nitrate (NO3)	Max 0.01%
Sulphate (SO4)	Max 0.01%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.005%
Magnesium (Mg)	Max 0.005%
Nickel (Ni)	Max 0.01%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.05%
Zinc (Zn)	Max 0.03%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS09

Signal Word: Warning

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

Hazardous Statement: H302-H317-H334-H341-H350i-H360F-H410

Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

COBALT (II) NITRATE HEXAHYDRATE 97% EXTRAPURE

Cobaltous nitrate

Product Code.	00834	Grade	Extrapure
Purity	97%	CAS No.	10026-22-9
Molecular Formula	Co(NO3)2.6H2O	Molecular Weight	291.03
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red crystals	Odour	Odorless
pH value	4 at 100 g/l at 20 °C	Melting point/ Freezing point [°C]	55 °C	Boiling point [°C]	75°C
Density [g/cm3]	1.87	Solubility in water [% weight]	134g/100ml water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2

Specification

Appearance	Red to very dark red and red-brown and brown-red crystals
Assay (ex Co)	97.0 - 102.0%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.03%
Iron (Fe)	Max 0.01%
Nickel (Ni)	Max 0.3%

Safety Information and Hazard Symbols

 
Symbol: GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H317-H334-H341-H350i-H360F-H410 Precaution Statement: P201-P273-P280-P302 + P352-P304+340-P342+311

COBALT (II) NITRATE HEXAHYDRATE 98% AR

Cobaltous nitrate hexahydrate; Nitric acid cobalt(II) salt

Product Code.	00835	Grade	
Purity	98%	CAS No.	10026-22-9
Molecular Formula	Co(NO3)2.6H2O	Molecular Weight	291.03
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red crystals	Odour	Odorless
pH value	4 at 100 g/l at 20 °C	Melting point/ Freezing point [°C]	55 °C	Boiling point [°C]	75°C
Density [g/cm3]	1.87	Solubility in water [% weight]	134g/100ml water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2

Packaging

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Specification

Appearance	Red crystals
Assay (complexometric)	98.0-102.0%
Insoluble matter	Max 0.01%
Chloride (Cl)	Max 0.002%
Sulphate (SO4)	Max 0.005%
Ammonium (NH4)	Max 0.2%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.001%
Lead (Pb)	Max 0.002%

Magnesium (Mg)	Max 0.005%
Nickel (Ni)	Max 0.15%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.05%
Zinc (Zn)	Max 0.01%

Safety Information and Hazard Symbols

 
Symbol: GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H317-H334-H341-H350i-H360F-H410 Precaution Statement: P201-P273-P280-P302+352-P304+340-P342+311

COBALT (II) OXIDE AR (71% CO)

For determination of sulphur. Mixture of cobalt (II) and cobalt (III) oxide

Product Code.	00837	Grade	AR
Purity	70%	CAS No.	1308-06-1
Molecular Formula	Co3O4	Molecular Weight	240.80
H.S.Code	2822.00100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
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Packaging

Specification

Appearance	Black powder
Assay (as Co; by complexometry)	Min 70%
Total sulphur (as SO4)	Max 0.001%
Lead (Pb)	Max 0.001%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08 Signal Word: Danger Hazardous Statement: H317-H350i-H351 Precaution Statement: P201-P280-P308 + P313

COBALT (II) OXIDE EXTRAPURE (70% CO)

Mixture of Cobalt (II) and Cobalt (III) oxide

Product Code.	00836	Grade	Extrapure
Purity	70%	CAS No.	1308-06-1
Molecular Formula	Co3O4	Molecular Weight	240.80
H.S.Code	2822.00100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
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Packaging

Specification

Appearance	Black powder
Assay (as Co; by complexometry)	Min 70%
Lead (Pb)	Max 0.002%
Nickel (Ni)	Max 0.3%
Iron (Fe)	Max 0.1%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08 Signal Word: Danger Hazardous Statement: H317-H350i-H351 Precaution Statement: P201-P280-P308 + P313

COBALT (II) SULPHATE HEPTAHYDRATE 97% EXTRAPURE

Product Code.	00838	Grade	
Purity	97%	CAS No.	10026-24-1
Molecular Formula	CoSO4.7H2O	Molecular Weight	281.10
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red crystalline powder	Odour	Odorless
pH value	4	Melting point/ Freezing point [°C]	98 °C	Boiling point [°C]	735°C
Density [g/cm3]	2.03	Solubility in water [% weight]	60.4g/100g water @ 30C		

Packaging

Specification

Appearance	A red crystalline powder
Assay (complexometric)	97 - 102%
Chloride (Cl)	Max 0.02%
Lead (Pb)	Max 0.005%
Iron (Fe)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H317-H334-H341-H350i-H360F-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

COBALT (II) SULPHATE HEPTAHYDRATE 99% AR

Product Code.	00839	Grade	
Purity	99%	CAS No.	10026-24-1
Molecular Formula	CoSO4.7H2O	Molecular Weight	281.10
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red crystalline powder	Odour	Odorless
pH value	4	Melting point/ Freezing point [°C]	98 °C	Boiling point [°C]	735°C
Density [g/cm3]	2.03	Solubility in water [% weight]	60.4g/100g water @ 30C		

Packaging

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Specification

Appearance	A red crystalline powder
Assay	Min 99%
Insoluble matter	Max 0.003%
Chloride (Cl)	Max 0.001%
Nitrogen compounds (as N)	Max 0.005%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.001%
Iron (Fe)	Max 0.002%
Lead (Pb)	Max 0.001%
Manganese (Mn)	Max 0.001%
Magnesium (Mg)	Max 0.001%
Nickel (Ni)	Max 0.01%

Potassium (K)	Max 0.002%
Sodium (Na)	Max 0.002%
Zinc (Zn)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H317-H334-H341-H350i-H360F-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

COPPER (I) BROMIDE ANHYDROUS 97% EXTRAPURE
CUPROUS BROMIDE ANHYDROUS

Product Code.	00855	Grade	
Purity	97%	CAS No.	7787-70-4
Molecular Formula	CuBr	Molecular Weight	143.45
H.S.Code	2827.59900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Light green	Melting point/ Freezing point [°C]	504 °C
Density [g/cm3]	4.71	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Light grayish green powder
Assay	Min 97%
Insoluble matter in HCl	Max 0.02%
Substance not precipitated by H2S (as SO4)	Max 0.3%
Sulphate (SO4)	Max 0.5%
Iron (Fe)	Max 0.05%
Arsenic (As)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

COPPER (I) CHLORIDE ANHYDROUS 97% AR

Copper (I) chloride

Product Code.	00862	Grade	
Purity	98%	CAS No.	7758-89-6
Molecular Formula	CuCl	Molecular Weight	99.00
H.S.Code	2827.39400	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greyish white	Odour	Odorless
pH value	5 at 50 g/l at 20 °C	Melting point/ Freezing point [°C]	430 °C	Boiling point [°C]	1490°C
Vapour pressure mm/Hg	0.975 mm Hg @ 5460C	Density [g/cm3]	4.14	Solubility in water [% weight]	0.62g/100 ml water

Packaging

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Specification

Appearance	Grayish white powder
Assay	Min 97%
Acid insoluble matter	Max 0.02%
Sulphate (SO4)	Max 0.05%
Arsenic (As)	Max 0.0001%
Calcium (Ca)	Max 0.01%
Iron (Fe)	Max 0.005%
Lead (Pb)	Max 0.02%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.05%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

UN No.: 2802

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H302-H410

Precaution Statement: P273-P501

COPPER (I) CHLORIDE ANHYDROUS 97% EXTRAPURE
CUPROUS CHLORIDE

Product Code.	00861	Grade	
Purity	97%	CAS No.	7758-89-6
Molecular Formula	CuCl	Molecular Weight	99.00
H.S.Code	2827.39400	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greyish white	Odour	Odorless
pH value	5 at 50 g/l at 20 °C	Melting point/ Freezing point [°C]	430 °C	Boiling point [°C]	1490°C
Vapour pressure mm/Hg	0.975 mm Hg @ 5460C	Density [g/cm3]	4.14	Solubility in water [% weight]	0.62g/100 ml water

Packaging

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Specification

Appearance	Grayish white powder
Assay	Min 97%
Sulphate (SO4)	Max 0.05%
Arsenic (As)	Max 0.0002%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 2802 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H410 Precaution Statement: P273-P501

COPPER (I) IODIDE 99% EXTRAPURE

Copper (I) iodide

Product Code.	00864	Grade	
Purity	99%	CAS No.	7681-65-4
Molecular Formula	CuI	Molecular Weight	190.44
H.S.Code	2827.60900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Creamish crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	605 °C	Boiling point [°C]	1290 °C	Density [g/cm3]	5.62
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	A creamish crystalline powder
Assay (iodometric)	Min 99%
Sulphate (SO4)	Max 0.5%
Iron (Fe)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H315-H319-H335-H410 Precaution Statement: P261-P273-P305 + P351 + P338-P501

COPPER (I) OXIDE RED 95% EXTRAPURE

Cuprous Oxide Red

Product Code.	00870	Grade	
Purity	95%	CAS No.	1317-39-1
Molecular Formula	Cu2O	Molecular Weight	143.09
H.S.Code	2825.50000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Red powder	Melting point/ Freezing point [°C]	1230 °C
Density [g/cm3]	6	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Red powder
Assay (as Cu2O)	Min 95%
Volatile matter	Max 0.5%
Metallic impurities	Max 0.5%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H410 Precaution Statement: P273-P501

COPPER (II) BROMIDE 98% EXTRAPURE
CUPRIC BROMIDE

Product Code.	00856	Grade	
Purity	98%	CAS No.	7789-45-9
Molecular Formula	CuBr2	Molecular Weight	223.36
H.S.Code	2827.59900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Characteristic odour
Melting point/ Freezing point [°C]	498 °C	Boiling point [°C]	900 °C	Density [g/cm3]	4.77
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Black shiny powder
Assay	Min 98%

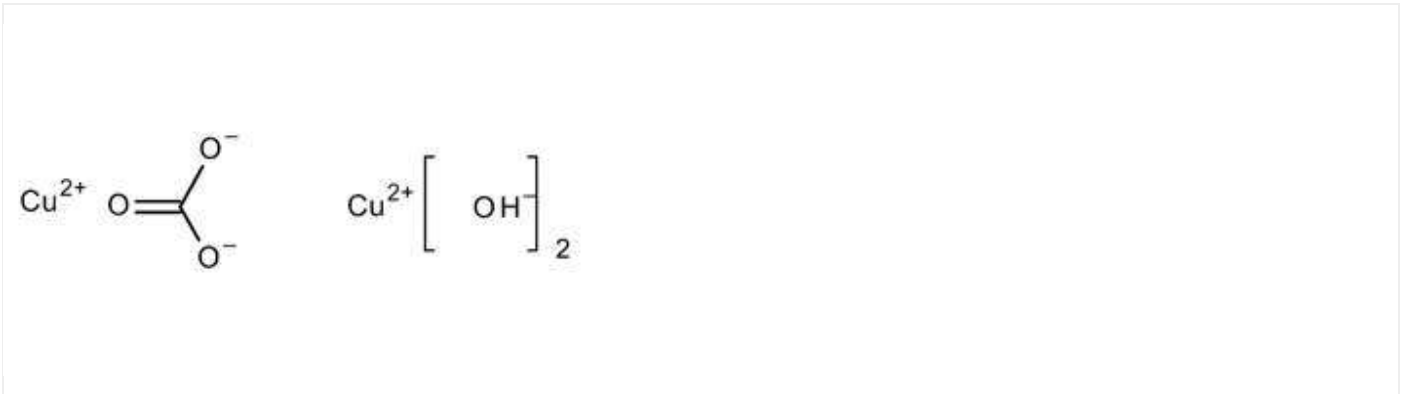
Safety Information and Hazard Symbols


Symbol: GHS05, GHS07 Signal Word: Danger UN No.: 1759 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H314 Precaution Statement: P280-P305 + P351 + P338-P310

COPPER (II) CARBONATE (BASIC) EXTRAPURE

Copper (II) hydroxide carbonate ; Cupric Carbonate

Product Code.	00857	Grade	Extrapure
Purity		CAS No.	12069-69-1
Molecular Formula	CuCO3.Cu(OH)2	Molecular Weight	221.10
H.S.Code	2836.99900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Green powder	Odour	Odorless
Melting point/ Freezing point [°C]	200 °C	Density [g/cm3]	4	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	Faint Blue to Green colored powder
Copper (Cu)	53 - 55.5%
Chloride (Cl)	Max 0.05%
Sulphate (SO4)	Max 0.05%
Insoluble in H2SO4	Max 0.05%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H302-H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

COPPER (II) CHLORIDE DIHYDRATE 98% EXTRAPURE

Copper (II) chloride dihydrate ;(Cuprice Chloride

Product Code.	00858	Grade	
Purity	98%	CAS No.	10125-13-0
Molecular Formula	CuCl2.2H2O	Molecular Weight	170.48
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greenish crystalline	Odour	Slight odor of hydrochloric acid
pH value	3 - 8	Melting point/ Freezing point [°C]	100 °C	Density [g/cm3]	2.54
Solubility in water [% weight]	76 parts/100 parts water @ 250C				

Specification

Appearance	Bluish green crystalline powder
Assay (iodometric)	Min 98%
Sulphate (SO4)	Max 0.02%
Iron (Fe)	Max 0.01%
Substance not precipitated by H2S (as SO4)	Max 0.5%
Loss on drying (at 105°C)	20.9 - 21.4%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 2802 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H315-H319-H335-H400 Precaution Statement: P261-P273-P305 + P351 + P338

COPPER (II) CHLORIDE DIHYDRATE 99% AR

(Confirms to USP) Copper (II) chloride dihydrate ; Cuprice Chloride

Product Code.	00859	Grade	
Purity	99%	CAS No.	10125-13-0
Molecular Formula	CuCl2.2H2O	Molecular Weight	170.48
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greenish crystalline	Odour	Slight odor of hydrochloric acid
pH value	3 - 3.8	Melting point/ Freezing point [°C]	100 °C	Density [g/cm3]	2.54
Solubility in water [% weight]	76 parts/100 parts water @ 250C				

Packaging

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Specification

Appearance	Bluish green crystalline powder
Assay (as CuCl2.2H2O)	Min 99.0%
Assay (on dried basis as CuCl2)	99.0 - 100.5%
Solubility	Freely soluble in water; soluble in alcohol;slightly soluble in ether
Identification	To comply USP tests
Insoluble matter	Max 0.01%
Nitrate (NO3)	Max 0.015%
Sulphate (SO4)	Max 0.005%
Iron (Fe)	Max 0.005%
Nickel (Ni)	Max 0.01%
Calcium (Ca)	Max 0.005%

Sodium (Na)	Max 0.02%
Potassium (K)	Max 0.01%
Loss on drying (at 105°C for 16 h)	20.9%-21.4%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

UN No.: 2802

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H302-H315-H319-H335-H400

Precaution Statement: P261-P273-P305 + P351 + P338

COPPER (II) NITRATE TRIHYDRATE 95% EXTRAPURE

Cupric Nitrate

Product Code.	00865	Grade	Extra Pure
Purity	95%	CAS No.	10031-43-3
Molecular Formula	Cu(NO3)2.3H2O	Molecular Weight	241.60
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Bluish crystals	Odour	Odorless
Melting point/ Freezing point [°C]	115°C	Boiling point [°C]	170°C	Density [g/cm3]	2.05
Solubility in water [% weight]	138g/100ml water @ 00C	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2		

Specification

Appearance	Bluish hygroscopic crystal
Assay (ex Cu)	95 - 103%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.02%
Iron (Fe)	Max 0.02%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS05, GHS07, GHS09 Signal Word: Danger UN No.: 1477 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H302-H315-H318-H400 Precaution Statement: P220-P273-P280-P305 + P351 + P338

COPPER (II) NITRATE TRIHYDRATE 99.5% AR

Copper (II) nitrate trihydrate ; Cupric Nitrate

Product Code.	00866	Grade	AR
Purity	99.5%	CAS No.	10031-43-3
Molecular Formula	Cu(NO3)2.3H2O	Molecular Weight	241.60
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Bluish crystals	Odour	Odorless
Melting point/ Freezing point [°C]	115°C	Boiling point [°C]	170°C	Density [g/cm3]	2.05
Solubility in water [% weight]	138g/100ml water @ 00C	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2		

Packaging

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Specification

Appearance	Bluish hygroscopic crystal
Assay (iodometric)	99.5-102.0%
Insoluble matter	Max 0.01%
Chloride (Cl)	Max 0.0005%
Sulphate (SO4)	Max 0.005%
Lead (Pb)	Max 0.001%
Nickel (Ni)	Max 0.001%
Iron (Fe)	Max 0.002%
Zinc (Zn)	Max 0.001%
Calcium (Ca)	Max 0.005%
Sodium (Na)	Max 0.01%

Potassium (K)

Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS05, GHS07, GHS09

Signal Word: Danger

UN No.: 1477

IMCO Class No.: 5.1

Packing Group: II

Hazardous Statement: H272-H302-H315-H318-H400

Precaution Statement: P220-P273-P280-P305 + P351 + P338

COPPER (II) OXIDE 97% EXTRAPURE

Copper(II) oxide ; Cupric Oxide Black

Product Code.	00867`	Grade	Extrapure
Purity	97%	CAS No.	1317-38-0
Molecular Formula	CuO	Molecular Weight	79.55
H.S.Code	2825.50000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
Density [g/cm3]	6.32	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Black colored fine powder
Assay	Min 97.0%
Sulphate (SO4)	Max. 0.06%
Iron (Fe)	Max. 0.1%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H410 Precaution Statement: P273-P501 Risk Statement: 22-50/53 Safety Statement: 60-61

COPPER (II) OXIDE 99% AR

Suitable for elementary analysis. Copper(II) oxide ; Cupric Oxide Black

Product Code.	00868	Grade	
Purity	98%	CAS No.	1317-38-0
Molecular Formula	CuO	Molecular Weight	79.55
H.S.Code	2825.50000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
Density [g/cm3]	6.32	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Black coloured fine powder
Assay (iodometric)	Min 99%
Substance insoluble in dilute HCl	Max 0.02%
Chloride (Cl)	Max 0.005%
Total sulphur (as SO4)	Max 0.01%
Total nitrogen (N)	Max 0.002%
Iron (Fe)	Max 0.05%
Carbon (C)	Max 0.01%
Calcium (Ca)	Max 0.01%
Potassium (K)	Max 0.02%
Sodium (Na)	Max 0.05%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

Hazardous Statement: H302-H410

Precaution Statement: P273-P501

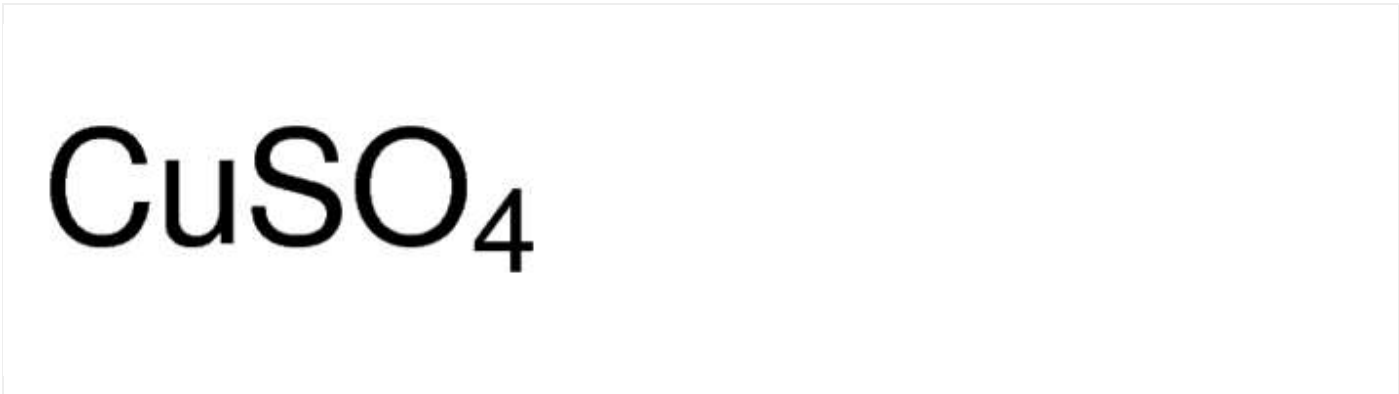
Risk Statement: 22-50/53

Safety Statement: 60-61

COPPER (II) SULPHATE ANHYDROUS 98% EXTRAPURE

Cupric Sulphate Anhydrous

Product Code.	00875	Grade	Extrapure
Purity	98%	CAS No.	7758-98-7
Molecular Formula	CuSO4	Molecular Weight	159.60
H.S.Code	2833.25000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Grey Powder	Odour	Odorless
pH value	3.5 - 4.5	Melting point/ Freezing point [°C]	200 °C	Density [g/cm3]	3.6

Packaging

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Specification

Appearance	White to off white to grey color powder
Assay (ex Cu)	Min 98.0%
Loss on dryig (at 230°C)	Max 1.0%
Iron (Fe)	Max 0.1%
Lead (Pb)	Max 0.01%
Zinc (Zn)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

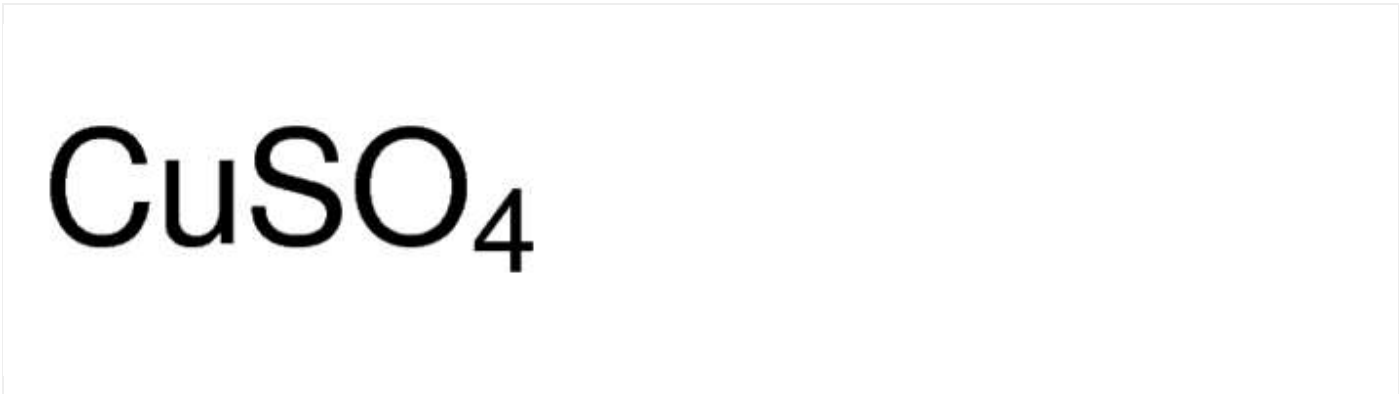
Hazardous Statement: H302-H315-H319-H410

Precaution Statement: P273-P305 + P351 + P338-P501

COPPER (II) SULPHATE ANHYDROUS 99% AR

Cupric Sulphate Anhydrous

Product Code.	00876	Grade	
Purity	99%	CAS No.	7758-98-7
Molecular Formula	CuSO4	Molecular Weight	159.60
H.S.Code	2833.25000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Grey Powder	Odour	Odorless
pH value	3.5 - 4.5	Melting point/ Freezing point [°C]	200 °C	Density [g/cm3]	3.6

Packaging

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Specification

Appearance	White to off white to grey color powder
Assay	Min 99%
Loss on dryig (at 250°C)	Max 0.5%
Chloride (Cl)	Max 0.002%
Nitrogen compounds (as N)	Max 0.005%
Iron (Fe)	Max 0.005%
Lead (Pb)	Max 0.005%
Nickel (Ni)	Max 0.005%

Zinc (Zn)

Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

Hazardous Statement: H302-H315-H319-H410

Precaution Statement: P273-P305 + P351 + P338-P501

COPPER (II) SULPHATE PENTAHYDRATE 98.5% EXTRAPURE

(Pentahydrate Sugar Crystals) (Cupric Sulphate)

Product Code.	00872	Grade	Extrapure
Purity	98.5%	CAS No.	7758-99-8
Molecular Formula	CuSO4.5H2O	Molecular Weight	249.68
H.S.Code	2833.25000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Blue crystalline	Odour	Odorless
pH value	3.7 - 4.5	Melting point/ Freezing point [°C]	110 °C	Boiling point [°C]	> 150°C
Vapour pressure [20°C]	9.5 hPa at 20 °C	Density [g/cm3]	2.28	Solubility in water [% weight]	31.6g/100cc H2O @ 00C

Packaging

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Specification

Appearance	Blue crystalline powder
Assay	98.5 - 101%
Chloride (Cl)	Max 0.005%
Iron (Fe)	Max 0.05%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.01%

Safety Information and Hazard Symbols

 
Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H315-H319-H410 Precaution Statement: P273-P305 + P351 + P338-P501

COPPER (II) SULPHATE PENTAHYDRATE 99% AR

Cupric Sulphate

Product Code.	00873	Grade	AR/ACS
Purity	99%	CAS No.	7758-99-8
Molecular Formula	CuSO4.5H2O	Molecular Weight	249.68
H.S.Code	2833.25000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Blue crystalline	Odour	Odorless
pH value	3.7 - 4.5	Melting point/ Freezing point [°C]	110 °C	Boiling point [°C]	> 150°C
Vapour pressure [20°C]	9.5 hPa at 20 °C	Density [g/cm3]	2.28	Solubility in water [% weight]	31.6g/100cc H2O @ 20°C

Packaging

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Specification

Appearance	Blue crystalline powder
Assay (iodometric)	99.0-102.0%
Insoluble matter	Max 0.005%
Chloride (Cl)	Max 0.001%
Total nitrogen (N)	Max 0.001%
Lead (Pb)	Max 0.005%
Nickel (Ni)	Max 0.005%
Iron (Fe)	Max 0.003%
Zinc (Zn)	Max 0.03%
Calcium (Ca)	Max 0.005%
Sodium (Na)	Max 0.005%
Potassium (K)	Max 0.001%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

Hazardous Statement: H302-H315-H319-H410

Precaution Statement: P273-P305 + P351 + P338-P501

COPPER OXIDE WIRE AR

Surface CuO,Core Cu2O4 acts as CuO contact in elementary analysis. Copper(II) oxide

Product Code.	00869	Grade	
Purity		CAS No.	1317-38-0
Molecular Formula		Molecular Weight	0.00
H.S.Code	2825.50000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black wire	Melting point/ Freezing point [°C]	1201 °C
Boiling point [°C]	2000 °C	Density [g/cm3]	6.3	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	Black wire
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Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H317-H334-H341-H350i-H360F-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

DYSPROSIUM OXIDE 99.9% AR

Dysprosium(III) oxide

Product Code.	01100	Grade	
Purity	99.9%	CAS No.	1308-87-8
Molecular Formula	Dy2O3	Molecular Weight	373.00
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White to yellow	Density [g/cm3]	7.81 g/mL at 25 °C
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Packaging

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Specification

Appearance	White to yellowish-white powder
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Safety Information and Hazard Symbols

EUROPIUM OXIDE 99.9% AR
Europium(III) oxide

Product Code.	01199	Grade	
Purity	99.9%	CAS No.	1308-96-9
Molecular Formula	Eu2O3	Molecular Weight	352.00
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Pink powder	Odour	Odorless
Density [g/cm3]	7.42 g/mL at 25 °C				

Packaging

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Specification

Appearance	White to light pink powder
Assay	Min 99.9%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

FERRIC CHLORIDE ANHYDROUS 98% EXTRAPURE

Iron(III) chloride; Iron trichloride, Molysite

Product Code.	01207	Grade	Extrapure
Purity	98%	CAS No.	7705-08-0
Molecular Formula	FeCl3	Molecular Weight	162.21
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Dark green	Odour	Slight odor of hydrochloric acid
pH value	10.1 at 10 g/l at 20 °C	Melting point/ Freezing point [°C]	About 305°C	Flash point [°C]	30 °C
Boiling point [°C]	139 °C	Vapour pressure [20°C]	8 hPa at 20 °C	Density [g/cm3]	0.91
Solubility in water [% weight]	Soluble in water	Partition coefficient Log Pow octanol / water at 20°C	0.055	Explosion limits - upper [%]	11.80%
Explosion limits -lower [%]	1.90%				

Packaging



Specification

Appearance	Dark green deliquescent powder
Assay (iodometric)	Min 98.0%
Melting point	About 305°C

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07

Signal Word: Danger

UN No.: 1773

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H290-H302-H315-H318

Precaution Statement: P280-P305 + P351 + P338

FERRIC CHLORIDE ANHYDROUS 99% AR

Iron (III) chloride

Product Code.	01208	Grade	
Purity	98%	CAS No.	7705-08-0
Molecular Formula	FeCl3	Molecular Weight	162.21
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Dark green	Odour	Slight odor of hydrochloric acid
pH value	10.1 at 10 g/l at 20 °C	Melting point/ Freezing point [°C]	-63 °C	Flash point [°C]	30 °C
Boiling point [°C]	139 °C	Vapour pressure [20°C]	8 hPa at 20 °C	Density [g/cm3]	0.91
Solubility in water [% weight]	Soluble in water	Partition coefficient Log Pow octanol / water at 20°C	0.055	Explosion limits - upper [%]	11.80%
Explosion limits -lower [%]	1.90%				

Packaging

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Specification

Appearance	Dark green efflorescence powder
Assay (iodometric)	Min 99%
Arsenic (As)	Max 0.0005%
Copper (Cu)	Max 0.04%
Magnesium (Mg)	Max 0.15%
Lead (Pb)	Max 0.02%
Zinc (Zn)	Max 0.04%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07

Signal Word: Danger

UN No.: 1773

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H290-H302-H315-H318

Precaution Statement: P280-P305 + P351 + P338

FERRIC CHLORIDE HEXAHYDRATE 97% AR

Iron (III) chloride hexahydrate

Product Code.	01210	Grade	AR
Purity	97%	CAS No.	10025-77-1
Molecular Formula	FeCl3.6H2O	Molecular Weight	270.30
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellowish lumps	Odour	Slight hydrochloric acid odour
Melting point/ Freezing point [°C]	37 °C	Boiling point [°C]	280 - 285 °C	Initial boiling point [°C]	280°C
Final boiling point [°C]	285 °C	Vapour pressure mm/Hg	1 mm Hg at 194 °C	Density [g/cm3]	1.820 g/cm3
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Yellow to yellow-orange /brown lumps or granular powder
Assay (as FeCl3.6H2O)	97.0 -102.0%
Insoluble matter	Max 0.01%
Nitrate (NO3)	Max 0.01%
Phosphate (PO4)	Max 0.01%
Sulphate (SO4)	Max 0.01%
Copper (Cu)	Max 0.003%
Iron II Fe(II)	Max 0.002%
Calcium (Ca)	Max 0.01%
Zinc (Zn)	Max 0.003%
Magnesium (Mg)	Max 0.005%

Sodium (Na)	Max 0.05%
Potassium (K)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS05, GHS07 Signal Word: Danger UN No.: 3260 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H290-H302-H315-H318 Precaution Statement: P280-P305 + P351 + P338

FERRIC CHLORIDE HEXAHYDRATE 97% EXTRAPURE

Iron (III) chloride hexahydrate

Product Code.	01209	Grade	Extrapure
Purity	97%	CAS No.	10025-77-1
Molecular Formula	FeCl3.6H2O	Molecular Weight	270.30
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellowish lumps	Odour	Slight hydrochloric acid odour
Melting point/ Freezing point [°C]	37 °C	Boiling point [°C]	280 - 285 °C	Initial boiling point [°C]	280°C
Final boiling point [°C]	285 °C	Vapour pressure mm/Hg	1 mm Hg at 194 °C	Density [g/cm3]	1.820 g/cm3
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Yellow to Yellow-Orange/Brown lumps or granular powder
Assay (iodometric)	Min 97.0%
Substance insoluble in HCl	Max 0.05%
Free acid (as HCl)	Max 0.2%
Free chlorine (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.05%
Total nitrogen (N)	Max 0.005%
Heavy metal (as Pb)	Max 0.005%
Arsenic (As)	Max 0.001%
Substance not preprecipitate by NH3 (as SO4)	Max 0.1%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07

Signal Word: Danger

UN No.: 3260

IMCO Class No.: 8

Packing Group: III

Hazardous Statement: H290-H302-H315-H318

Precaution Statement: P280-P305 + P351 + P338

FERRIC NITRATE NONAHYDRATE 98% AR

Iron(III) nitrate nonahydrate;

Product Code.	01215	Grade	AR
Purity	98%	CAS No.	7782-61-8
Molecular Formula	Fe(NO3)3.9H2O	Molecular Weight	404.00
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Pale Mauve	Odour	Slight nitric acid odor
Melting point/ Freezing point [°C]	47 °C	Boiling point [°C]	< 100°C	Density [g/cm3]	1.864
Solubility in water [% weight]	Freely soluble				

Packaging

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Specification

Appearance	Off-White to Pale Purple Moist Crystals/Powder
Assay (by Na2S2O3 titration)	98.0-101.0%
Infrared spectrum	Passes test
Insoluble matter (10 % in dil. HNO3)	Max 0.005%
Chloride (Cl)	Max 0.0005%
Sulphate (SO4)	Max 0.01%
Calcium (Ca)	Max 0.01%
Magnesium (Mg)	Max 0.005%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.05%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS07

Signal Word: Warning

UN No.: 1466

IMCO Class No.: 5.1

Packing Group: III

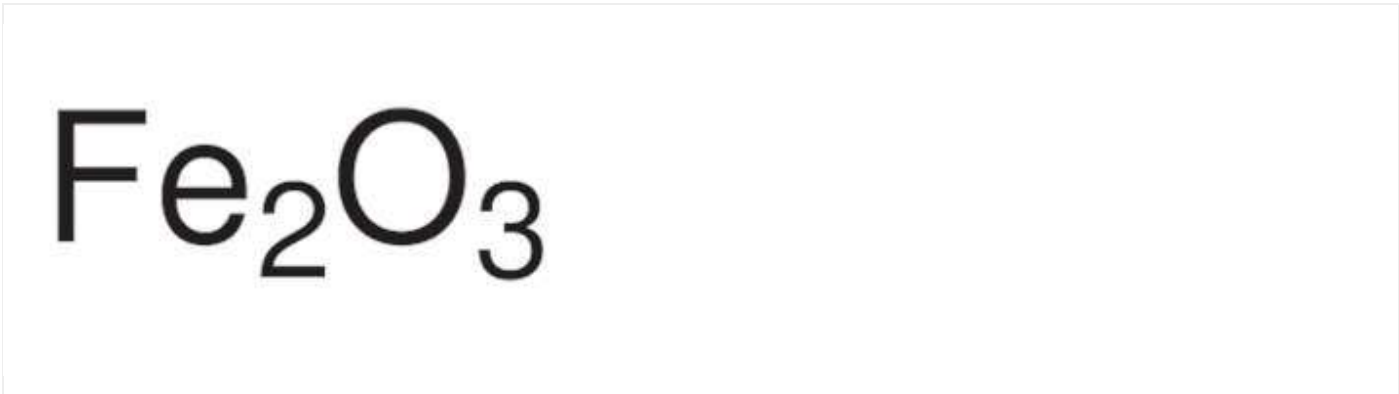
Hazardous Statement: H272-H315-H319-H335

Precaution Statement: P220-P261-P305 + P351 + P338

FERRIC OXIDE RED 95% EXTRAPURE

Iron(III) oxide

Product Code.	02916	Grade	Extrapure
Purity	95%	CAS No.	1309-37-1
Molecular Formula	Fe2O3	Molecular Weight	159.69
H.S.Code	2821.10100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Reddish powder	Odour	Odorless
Melting point/ Freezing point [°C]	1565°C	Density [g/cm3]	5.24	Solubility in water [% weight]	Negligible (< 0.1%)

Packaging

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Specification

Appearance	Reddish powder
Assay	95 - 98%
Loss on ignition	Max 0.5%
Water soluble matter	Max 1.0%
Phosphate (PO4)	Max 0.3%
Sulphate (SO4)	Max 0.5%
Manganese (Mn)	Max 0.25%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

FERRIC SULPHATE MONOHYDRATE EXTRAPURE

Iron(III) Sulphate Hydrate

Product Code.	01218	Grade	Extrapure
Purity		CAS No.	15244-10-7
Molecular Formula	Fe2(SO4)3.xH2O	Molecular Weight	399.88
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greyish white crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	480°C	Decomposition point [°C]	480°C	Density [g/cm3]	3.097
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Grayish-white to yellowish powder
Assay (as Fe)	Min 20%
Copper (Cu)	Max 0.01%
Ferrous ion (Fe2+)	Max 0.1%
Chloride (Cl)	Max 0.03%
Nitrate (NO3)	Max 0.1%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H319-H335 Precaution Statement: P261-P305 + P351 + P338

FERROUS CHLORIDE HYDRATE 98% EXTRAPURE

Iron(II) Chloride hydrate

Product Code.	01222	Grade	Extrapure
Purity	98%	CAS No.	13478-10-9
Molecular Formula	FeCl ₂ .4H ₂ O	Molecular Weight	198.81
H.S.Code	2827.41900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellowish green	Odour	Odorless
pH value	2.5 at 100 g/l at 20 °C	Melting point/ Freezing point [°C]	105 - 110 °C	Vapour pressure mm/Hg	13.3 mm Hg at 693 °C
Density [g/cm ³]	1.93 g/cm ³	Solubility in water [% weight]	Soluble in water	Partition coefficient Log Pow octanol / water at 20°C	-1.5

Specification

Appearance	Yellowish green colored crystals/powder
Assay	Min 98.0%
Sulphate (SO ₄)	Max 0.03%
Arsenic (As)	Max 0.0005%
Copper (Cu)	Max 0.005%
Lead (Pb)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS05, GHS07 Signal Word: Danger UN No.: 3260 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H314 Precaution Statement: P280-P305 + P351 + P338-P310

FERROUS SULPHATE EXSICCATED (DRIED) 86% EXTRAPURE

Confirms to IP Iron(II) Sulphate dried

Product Code.	01225	Grade	
Purity	86%	CAS No.	13463-43-9
Molecular Formula	FeSO4 .1.5H2O	Molecular Weight	151.91
H.S.Code	2833.29100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Off white to green tint	Odour	Odorless
pH value	3 - 4 at 50 g/l at 25 °C	Vapour pressure mm/Hg	19.5 mm Hg at 25 °C	Density [g/cm3]	1.898
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	A greyish white powder
Assay (as FeSO4)	86.0 - 90.0%
Identification	Passes IP test
Manganese (Mn)	Passes test
Iron(Fe3+)	Passes test (Max 4.5 ml)
Copper (Cu)	Max 0.005%
Heavy metal (as Pb)	0.005%
Zinc (Zn)	Max 0.01%
Arsenic (As)	Max 0.0003%
Basic Sulphate	Passes test

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

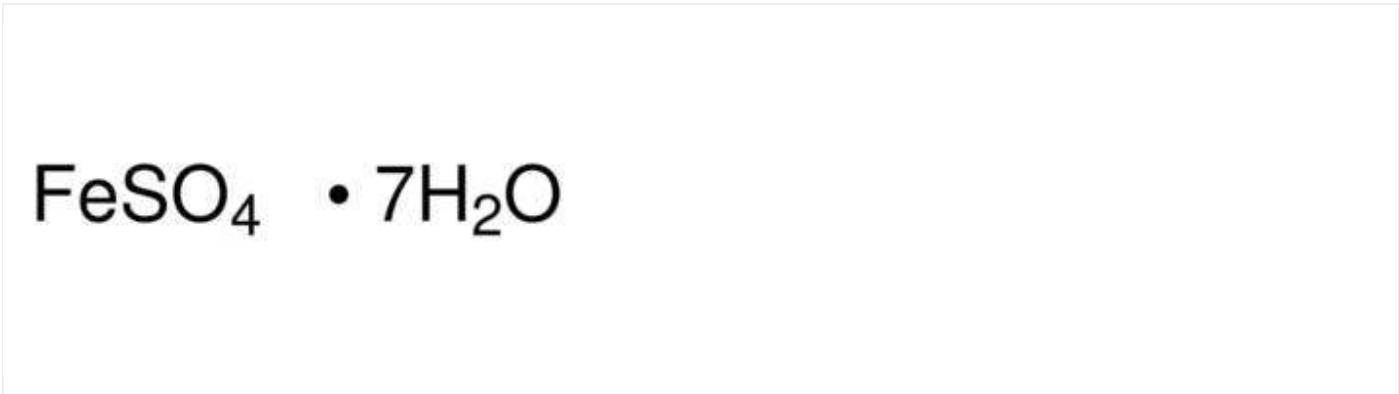
Hazardous Statement: H302-H315-H319

Precaution Statement: P305 + P351 + P338

FERROUS SULPHATE HEPTAHYDRATE 98.5% EXTRAPURE

Iron(II) Sulphate heptahydrate

Product Code.	01223	Grade	Extrapure
Purity	98.5%	CAS No.	7782-63-0
Molecular Formula	FeSO4.7H2O	Molecular Weight	278.01
H.S.Code	2833.29100	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Green powder	Odour	Odorless
pH value	3 - 4 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	64 °C	Boiling point [°C]	> 300°C
Vapour pressure mm/Hg	14.6 mm Hg at 25 °C	Density [g/cm3]	1.898 g/cm3 at 25 °C	Solubility in water [% weight]	48.6 g/100 g water @ 500C

Packaging

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Specification

Appearance	Light blue or blue-green or green powder or crystals
Assay	98.5 - 104.5%
pH (5% solution in water)	3.0 - 4.0
Chloride (Cl)	Max 0.01%
Heavy metal (as Pb)	Max 0.005%

Arsenic (As)	Max 0.0002%
Lead (Pb)	Max 0.001%
Iron (III) salts (as Fe)	Max 0.2%
Copper (Cu)	Max 0.005%
Manganese (Mn)	Max 0.1%
Mercury (Hg)	Max 0.0003%
Zinc (Zn)	Max 0.05%

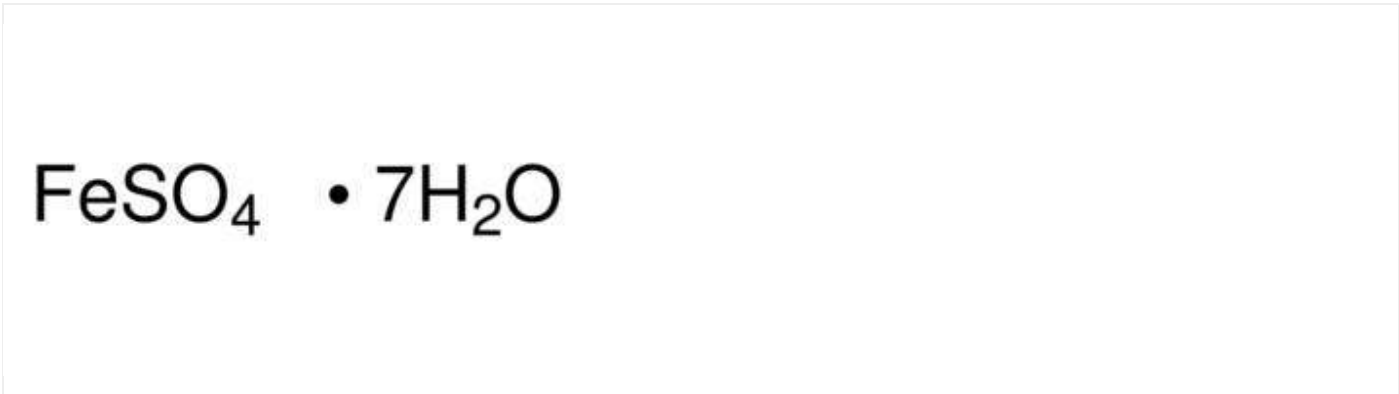
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H315-H319 Precaution Statement: P305 + P351 + P338

FERROUS SULPHATE HEPTAHYDRATE 99% AR

Iron(II) Sulphate heptahydrate

Product Code.	01224	Grade	AR
Purity	99%	CAS No.	7782-63-0
Molecular Formula	FeSO4.7H2O	Molecular Weight	278.01
H.S.Code	2833.29100	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Green powder	Odour	Odorless
pH value	3 - 4 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	64 °C	Boiling point [°C]	> 300°C
Vapour pressure mm/Hg	14.6 mm Hg at 25 °C	Density [g/cm3]	1.898 g/cm3 at 25 °C	Solubility in water [% weight]	48.6 g/100 g water @ 500C

Packaging



Specification

Appearance	Light blue or blue-green or green crystalline powder or crystals
Assay	Min 99.0%
Ferric ion (Fe)	Max 0.1%

Copper (Cu)	Max 0.005%
Insoluble matter	Max 0.01%
pH (5% solution in water)	3.0 - 4.0
Chloride (Cl)	Max 0.001%
Phosphate (PO4)	Max 0.001%
Manganese (Mn)	Max 0.05%
Zinc (Zn)	Max 0.005%
Calcium (Ca)	Max 0.005%
Magnesium (Mg)	Max 0.002%
Potassium (K)	Max 0.002%
Sodium (Na)	Max 0.02%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H315-H319 Precaution Statement: P305 + P351 + P338

GADOLINIUM (III) OXIDE 99.9% EXTRAPURE

Product Code.	01269	Grade	
Purity	99.9%	CAS No.	12064-62-9
Molecular Formula	Gd2O3	Molecular Weight	362.49
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White to cream	Odour	Odorless
Melting point/ Freezing point [°C]	1900°C	Vapour density	12.49	Density [g/cm3]	7.407 g/mL at 20 °C
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	White to cream coloured powder
Assay	Min 99.9%
Identity (IR)	Passes test

Safety Information and Hazard Symbols

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GERMANIUM DIOXIDE 99.99% ELECTRONIC GRADE

Germanium(IV) oxide

Product Code.	01275	Grade	
Purity	99.99%	CAS No.	1310-53-8
Molecular Formula	GeO2	Molecular Weight	104.60
H.S.Code	2825.60100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	> 400 °C	Density [g/cm3]	3.637 g/cm3 at 25 °C		

Packaging

Specification

Appearance	White powder
Assay	Min 99.99%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H332

HOLMIUM OXIDE 99.9% EXTRAPURE

Holmium(III) oxide; Rare earth

Product Code.	01362	Grade	Extrapure
Purity	99.9%	CAS No.	12055-62-8
Molecular Formula	Ho2O3	Molecular Weight	377.88
H.S.Code	2846.90900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder	Melting point/ Freezing point [°C]	2360°C
Boiling point [°C]	3900°C	Density [g/cm3]	8.4	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	Off-White to Yellow to beige to light orange powder or Light Pink color powder
Assay (on calcined substance)	Min 99.9%
Identity (IR)	Conforms

Safety Information and Hazard Symbols

IRIDIUM TRICHLORIDE (IR 46%) FOR SYNTHESIS

Iridium(III) chloride; IrCl3

Product Code.	01468	Grade	
Purity	Min. 46%	CAS No.	10025-83-9
Molecular Formula	IrCl3	Molecular Weight	298.58
H.S.Code	2843.90190	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Dark green	Melting point/ Freezing point [°C]	763 °C
Density [g/cm3]	5.3	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	Dark Green to Black crystals/crystalline powder
Iridium content approx.	About 46%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

IRON(II) SULFATE HEPTAHYDRATE, 99.5%, FOR ANALYSIS

Product Code.	1224A	Grade	For Analysis
Purity	99.5%	CAS No.	7782-63-0
Molecular Formula	FeO4S.7H2O	Molecular Weight	278.01
H.S.Code	2833.29100	Shelf Life	36 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Green powder	Odour	Odorless
pH value	3 - 4 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	64 °C	Boiling point [°C]	> 300°C
Vapour pressure mm/Hg	14.6 mm Hg at 25 °C	Density [g/cm3]	1.898 g/cm3 at 25 °C	Solubility in water [% weight]	48.6 g/100 g water @ 500C

Packaging

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Specification

Appearance (Color)	Light green to blue
Appearance (Form)	Crystals
Titration with KMnO4	>=99.5 %
Subst not pptd by NH	=<0.05 % (as SO)
Total nitrogen compo	=<0.001 %
Chloride (Cl)	=<5 ppm
Phosphate (PO4)	=<10 ppm
Copper (Cu)	=<10 ppm
Zinc (Zn)	=<50 ppm
Lead (Pb)	=<5 ppm
Ferric iron (Fe 3+)	=<100 ppm

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H302-H315-H319

Precaution Statement: P305 + P351 + P338

LANTHANUM CARBONATE HYDRATE 99.5% AR

Lanthanum(III) carbonate

Product Code.	01502	Grade	
Purity	99.5%	CAS No.	54451-24-0
Molecular Formula	La2(CO3)3.xH2O	Molecular Weight	457.84
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Density [g/cm3]	2.6 - 2.7
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99.5%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

LANTHANUM CHLORIDE HEPTAHYDRATE AR

Lanthanum(III) chloride

Product Code.	01503	Grade	AR
Purity		CAS No.	10025-84-0
Molecular Formula	LaCl3.7H2O	Molecular Weight	371.37
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	860°C	Density [g/cm3]	3.842	Solubility in water [% weight]	Soluble in water

Packaging

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Specification

Appearance	White crystalline powder
Assay (by gravimetric determination as LaCl3)	64.5-70.0%
Insoluble matter	Max 0.01%
Calcium (Ca)	Max 0.001%
Magnesium (Mg)	Max 0.001%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

LANTHANUM NITRATE 99% PURIFIED (HEXAHYDRATE)

Suitable for flame enhancement in Atomic Adsorption Lanthanum(III) nitrate

Product Code.	01503A	Grade	hexahydrate
Purity	99%	CAS No.	10277-43-7
Molecular Formula	LaN3O9.6H2O	Molecular Weight	433.02
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Melting point/ Freezing point [°C]	65 - 68 °C
Boiling point [°C]	126°C	Solubility in water [% weight]	Appreciable (> 10%)	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2

Packaging

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Specification

Appearance	White powder or crystal or chunks
Assay (complexometric)	Min 99%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.005%
Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.002%
Cerium (Ce)	Max 0.03%
Neodymium (Nd)	Max 0.02%
Praseodymium (Pr)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS07

Signal Word: Danger

UN No.: 1477

IMCO Class No.: 5.1

Packing Group: II

Hazardous Statement: H272-H315-H319-H335

Precaution Statement: P220-P261-P305 + P351 + P338

LANTHANUM OXIDE 99.9% AR

Suitable for atomic absorption spectroscopy. Lanthanum(III) Oxide

Product Code.	01505	Grade	AR
Purity	99.9%	CAS No.	1312-81-8
Molecular Formula	La2O3	Molecular Weight	325.81
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	Alkaline	Melting point/ Freezing point [°C]	2315°C	Boiling point [°C]	4200°C
Density [g/cm3]	6.51	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	White to off white to grey or buff color powder
Assay	Min 99.9%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.005%
Calcium (Ca)	Max 0.002%
Copper (Cu)	Max 0.005%
Iron (Fe)	Max 0.002%
Magnesium (Mg)	Max 0.0003%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

LEAD (II) CHLORIDE ANHYDROUS 98% FOR SYNTHESIS

Cotunnite

Product Code.	01521	Grade	For Synthesis
Purity	98%	CAS No.	7758-95-4
Molecular Formula	PbCl2	Molecular Weight	278.10
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	501 °C	Boiling point [°C]	950 °C	Vapour density	9.6
Density [g/cm3]	5.85	Solubility in water [% weight]	1.1 gm in 100 gm water		

Packaging

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Specification

Appearance	White crystalline powder
Assay (complexometric)	Min 98.0%

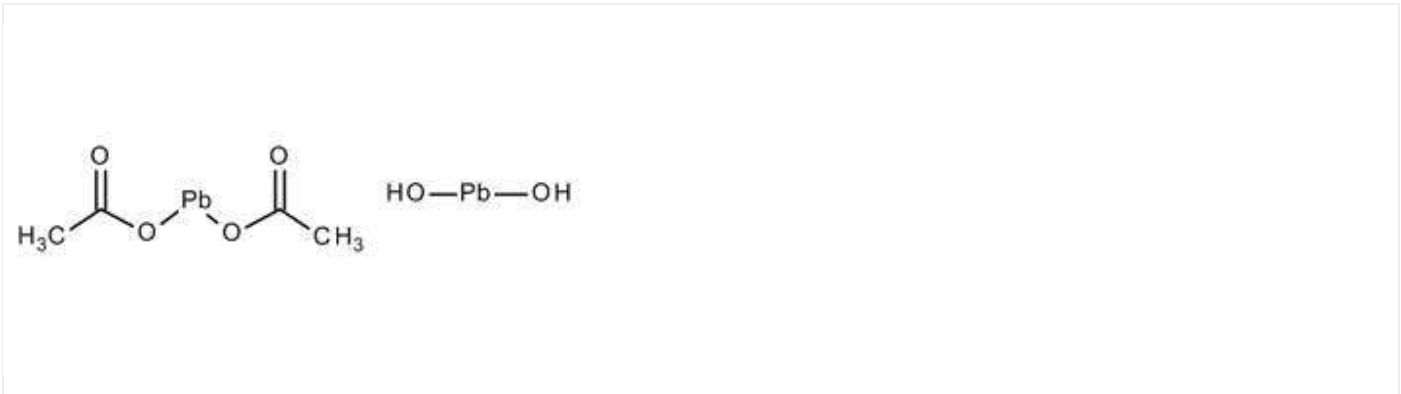
Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 2291 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H332-H360Df-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

LEAD ACETATE BASIC ANHYDROUS 99% EXTRAPURE

According to the method by Horne for sugar analysis.:(anhydrous) (lead subacetate)

Product Code.	01516	Grade	Extrapure
Purity	99%	CAS No.	51404-69-4
Molecular Formula	(CH3COO)2Pb.Pb(OH)2	Molecular Weight	566.50
H.S.Code	2915.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder
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Packaging

Specification

Appearance	A heavy white powder
Assay	Min 99.0%
Assay (as PbO; complexometric)	Min 33.0%
Acid insoluble matter	Max 0.02%
Insoluble matter in water	Max 1%
Chloride (Cl)	Max 0.003%
Nitrate (NO3)	Max 0.002%
Calcium (Ca)	Max 0.01%
Copper (Cu)	Max 0.001%

Iron (Fe)	Max 0.002%
Potassium (K)	Max 0.02%
Sodium (Na)	Max 0.05%
Loss on drying (at 105°C)	Max 1%

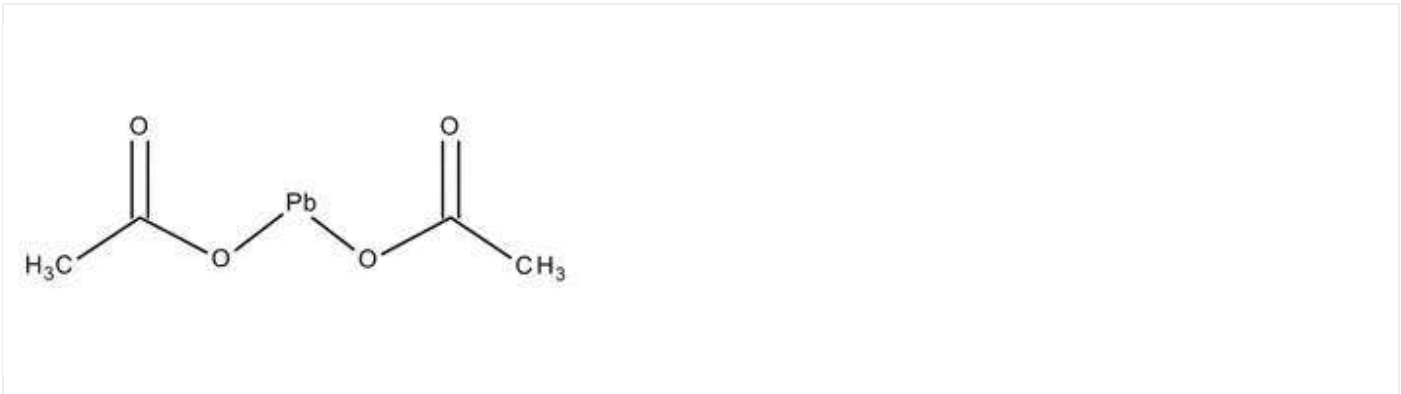
Safety Information and Hazard Symbols

 
Symbol: GHS08, GHS09 Signal Word: Danger UN No.: 2291 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H351-H360Df-H373-H410 Precaution Statement: P201-P273-P281-P308 + P313-P501

LEAD ACETATE TRIHYDRATE 99% AR

Lead (II) acetate trihydrate

Product Code.	01515	Grade	AR
Purity	99%	CAS No.	6080-56-4
Molecular Formula	(CH3COO)2Pb.3H2O	Molecular Weight	379.33
H.S.Code	2915.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Slight acetic acid odor
pH value	5.5-6.5	Melting point/ Freezing point [°C]	75 °C	Density [g/cm3]	2.55
Solubility in water [% weight]	60 gm in 100 gm water				

Packaging

Specification

Appearance	A heavy white crystalline powder
Assay	99 - 103%
Sodium (Na)	Max 0.005%
Insoluble matter	Max 0.01%
Chloride (Cl)	Max 0.0005%
Nitrite & nitrate (NO3)	Max 0.005%

Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.001%
Potassium (K)	Max 0.005%

Safety Information and Hazard Symbols

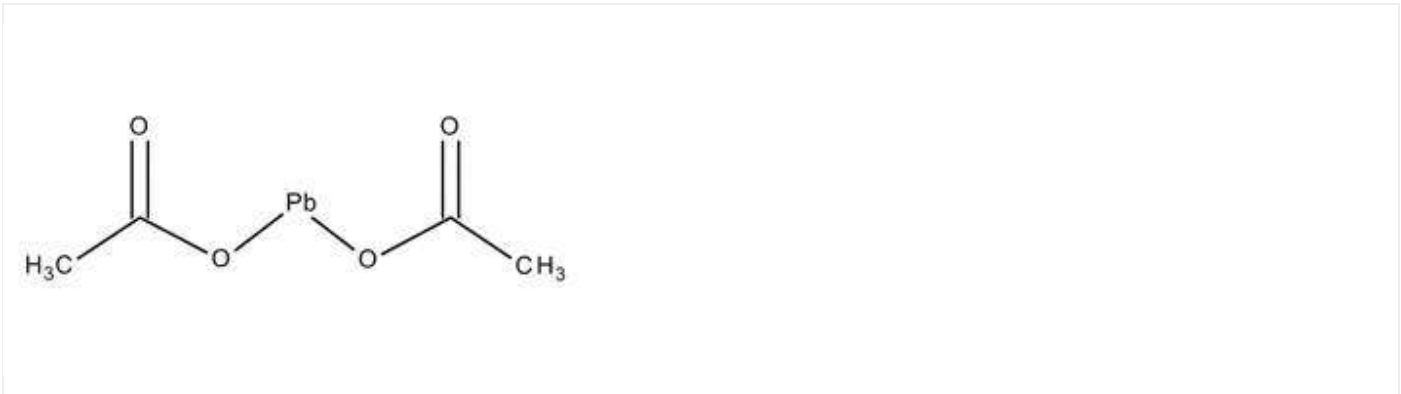


Symbol: GHS08, GHS09
Signal Word: Danger
UN No.: 1616
IMCO Class No.: 6.1
Packing Group: III
Hazardous Statement: H360Df-H373-H410
Precaution Statement: P201-P273-P308 + P313-P501

LEAD ACETATE TRIHYDRATE 99% EXTRAPURE

Lead (II) acetate trihydrate

Product Code.	01514	Grade	
Purity	99%	CAS No.	6080-56-4
Molecular Formula	(CH3COO)2Pb.3H2O	Molecular Weight	379.34
H.S.Code	2915.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Slight acetic acid odor
pH value	5.5-6.5	Melting point/ Freezing point [°C]	75 °C	Density [g/cm3]	2.55
Solubility in water [% weight]	60 gm in 100 gm water				

Packaging

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Specification

Appearance	A heavy white crystalline powder
Assay (complexometric)	99-102%
Chloride (Cl)	Max 0.002%
Iron (Fe)	Max 0.001%
Copper (Cu)	Max 0.002%
Silver (Ag)	Max 0.001%

Zinc (Zn)	Max 0.005%
Substance not precipitated by H2S (as SO4)	Max 0.2%
Alkali & alkaline earth metals	Passes test

Safety Information and Hazard Symbols


Symbol: GHS08, GHS09 Signal Word: Danger UN No.: 1616 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H360Df-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

LEAD BROMIDE 99%
Lead(II) bromide

Product Code.	01518	Grade	
Purity	99%	CAS No.	10031-22-8
Molecular Formula	PbBr2	Molecular Weight	367.01
H.S.Code	2827.59900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Melting point/ Freezing point [°C]	371 °C
Density [g/cm3]	6.66				

Packaging

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Specification

Appearance	White to beige color crystals or crystalline powder
Assay (ex Pb)	Min 99%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 2291 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H332-H360Df-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

LEAD CARBONATE 98% EXTRAPURE

Product Code.	01519	Grade	Extrapure
Purity	75% as Pb	CAS No.	1319-46-6
Molecular Formula	C2H2O8Pb3	Molecular Weight	775.63
H.S.Code	2836.99900	Shelf Life	60 Months



Physical Properties

Packaging

Specification

Appearance	White to off white Powder
Assay (as Pb; complexometric)	Min 75.0%
Insoluble matter in dil. acetic acid	Max 0.05%

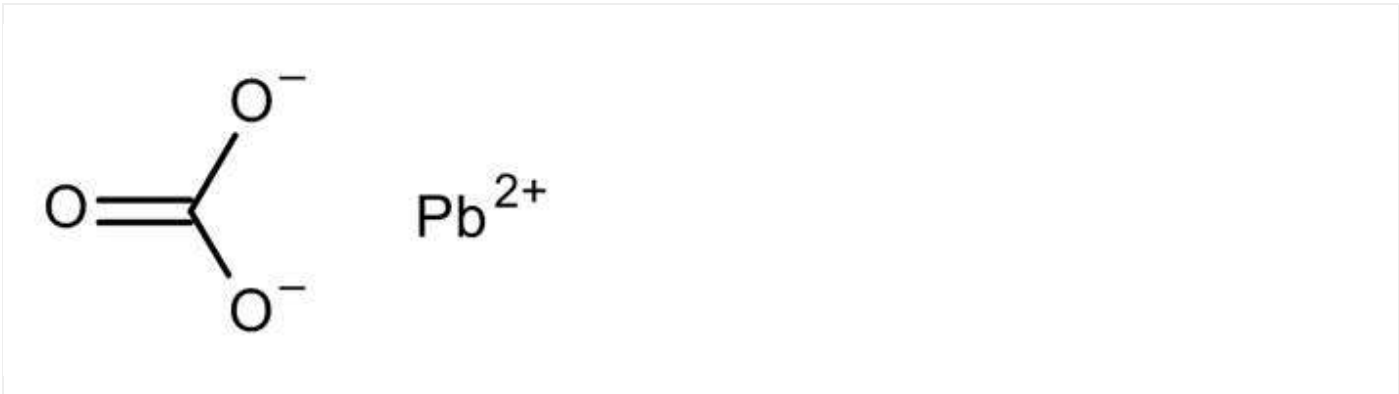
Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302 + H332-H360Df-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

LEAD CARBONATE 99% AR

Lead(II) carbonate

Product Code.	01520	Grade	
Purity	99%	CAS No.	598-63-0
Molecular Formula	PbCO3	Molecular Weight	267.21
H.S.Code	2836.99900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	400 °C	Density [g/cm3]	6.14		

Packaging

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Specification

Appearance	White heavy powder
Assay (complexometric)	Min 99%
Substance insoluble in dilute acetic acid	Max 0.02%
Chloride (Cl)	Max 0.002%
Nitrite & nitrate (NO3)	Max 0.005%
Total nitrogen (N)	Max 0.02%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.002%

Zinc (Zn)	Max 0.003%
Cadmium (Cd)	Max 0.002%
Calcium (Ca)	Max 0.01%
Sodium (Na)	Max 0.05%
Potassium (K)	Max 0.02%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H332-H360-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

LEAD DIOXIDE 95% EXTRAPURE

Lead(IV) oxide; Lead (su)peroxide; Lead peroxide

Product Code.	01524	Grade	Extrapure
Purity	95%	CAS No.	1309-60-0
Molecular Formula	PbO2	Molecular Weight	239.20
H.S.Code	2824.90000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Dark brown	Odour	Odorless
Melting point/ Freezing point [°C]	290°C	Vapour density	8.2	Density [g/cm3]	9.38
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2				

Specification

Appearance	Brown to black powder
Assay	Min 95.0%
Substance insoluble in nitric acid and hydrogen peroxide	Max 0.1%
Chloride (Cl)	Max 0.05%
Manganese (Mn)	Max 0.001%
Sulphate (SO4)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 1872 IMCO Class No.: 5.1,6.1 Packing Group: III Hazardous Statement: H272-H302-H332-H360Df-H373-H410 Precaution Statement: P201-P220-P273-P308 + P313-P501

LEAD DIOXIDE 97% AR

Lead(IV) oxide; Lead (su)peroxide; Lead peroxide

Product Code.	01525	Grade	AR
Purity	97%	CAS No.	1309-60-0
Molecular Formula	PbO2	Molecular Weight	239.20
H.S.Code	2824.90000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Dark brown	Odour	Odorless
Melting point/ Freezing point [°C]	290°C	Vapour density	8.2	Density [g/cm3]	9.38
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2				

Packaging

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Specification

Appearance	Brown to black powder
Assay	Min 97%
Dilute nitric acid insoluble matter	Max 0.2%
Carbon compounds (C)	Max 0.04%
Chloride (Cl)	Max 0.002%
Nitrate (NO3)	Max 0.02%
Sulphate (SO4)	Max 0.05%
Calcium (Ca)	Max 0.02%
Copper (Cu)	Max 0.05%
Iron (Fe)	Max 0.02%
Manganese (Mn)	Max 0.0005%

Potassium (K)	Max 0.05%
Sodium (Na)	Max 0.1%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 1872 IMCO Class No.: 5.1,6.1 Packing Group: III Hazardous Statement: H272-H302-H332-H360Df-H373-H410 Precaution Statement: P201-P220-P273-P308 + P313-P501

LEAD MONOXIDE (LITHARGE) 99% EXTRAPURE

Litharge ;lead oxide yellow

Product Code.	01527	Grade	Extrapure
Purity	99%	CAS No.	1317-36-8
Molecular Formula	PbO	Molecular Weight	223.20
H.S.Code	2824.10100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder	pH value	Strong base
Melting point/ Freezing point [°C]	886°C	Vapour pressure mm/Hg	10 mm Hg @ 10850C	Density [g/cm3]	9.53
Solubility in water [% weight]	Insoluble				

Specification

Appearance	Yellow to light orange powder
Assay (ex Pb)	99 - 100.5%
Substance insoluble in dilute acids	Max 0.2%
Loss on ignition	Max 0.2%
Chloride (Cl)	Max 0.02%
Copper (Cu)	Max 0.005%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 2291 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H332-H360Df-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

LEAD MONOXIDE 99% AR

Litharge

Product Code.	01528	Grade	AR
Purity	99%	CAS No.	1317-36-8
Molecular Formula	PbO	Molecular Weight	223.20
H.S.Code	2824.10100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder	pH value	Strong base
Melting point/ Freezing point [°C]	886°C	Vapour pressure mm/Hg	10 mm Hg @ 10850C	Density [g/cm3]	9.53
Solubility in water [% weight]	Insoluble				

Packaging

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Specification

Appearance	Yellow to light orange powder
Assay	Min 99%
Acetic acid insoluble matter	Max 0.02%
Chloride (Cl)	Max 0.002%
Nitrate (NO3)	Max 0.01%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.005%
Iron (Fe)	Max 0.002%
Potassium (K)	Max 0.005%
Silver (Ag)	Max 0.0005%
Sodium (Na)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS08, GHS09

Signal Word: Danger

UN No.: 2291

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H302-H332-H360Df-H373-H410

Precaution Statement: P201-P273-P308 + P313-P501

LEAD NITRATE 99% AR

Lead (II) nitrate; Lead dinitrate

Product Code.	01530	Grade	AR
Purity	99%	CAS No.	10099-74-8
Molecular Formula	Pb(NO3)2	Molecular Weight	331.21
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	3 - 4	Melting point/ Freezing point [°C]	205 °C	Vapour density	11
Density [g/cm3]	4.53	Solubility in water [% weight]	50 gm in 100 gm of water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99.0%
Insoluble matter	Max 0.005%
Chloride (Cl)	Max 0.001%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.002%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS07, GHS08, GHS09

Signal Word: Danger

UN No.: 1469

IMCO Class No.: 5.1,6.1

Packing Group: II

Hazardous Statement: H272-H302-H332-H360-H373-H410

Precaution Statement: P201-P220-P273-P308 + P313-P501

LEAD NITRATE 99% EXTRAPURE

Lead (II) nitrate; Lead dinitrate

Product Code.	01529	Grade	Extrapure
Purity	99%	CAS No.	10099-74-8
Molecular Formula	Pb(NO ₃) ₂	Molecular Weight	331.21
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	3 - 4	Melting point/ Freezing point [°C]	205 °C	Vapour density	11
Density [g/cm ³]	4.53	Solubility in water [% weight]	50 gm in 100 gm of water	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2

Specification

Appearance	White crystalline powder
Assay	Min 99%
Chloride (Cl)	Max 0.005%
Substance not precipitated by hydrogen sulphide (as SO ₄)	Max 0.2%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.002%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 1469 IMCO Class No.: 5.1,6.1 Packing Group: II Hazardous Statement: H272-H302-H332-H360-H373-H410 Precaution Statement: P201-P220-P273-P308 + P313-P501

LEAD OXIDE (RED LEAD) 95% EXTRAPURE

Red lead

Product Code.	01533	Grade	Extrapure
Purity	95%	CAS No.	1314-41-6
Molecular Formula	Pb3O4	Molecular Weight	685.60
H.S.Code	2824.90000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Orange red	Odour	Odorless
Melting point/ Freezing point [°C]	500°C	Density [g/cm3]	9.1	Solubility in water [% weight]	Insoluble in water
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2				

Packaging

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Specification

Appearance	Heavy, orange red powder
Assay (as Pb3O4)	Min 95.0%
Assay (as PbO2)	Min 33.3%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 1479 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H302-H332-H360Df-H373-H410 Precaution Statement: P201-P220-P273-P308 + P313-P501

LEAD SULPHATE 98.5% EXTRAPURE

Anglesite

Product Code.	01535	Grade	Extrapure
Purity	98.5%	CAS No.	7446-14-2
Molecular Formula	PbSO4	Molecular Weight	303.26
H.S.Code	2833.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Melting point/ Freezing point [°C]	1170°C
Density [g/cm3]	6.2	Solubility in water [% weight]	Slightly soluble		

Packaging

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Specification

Appearance	White powder
Assay (ex Pb)	Min 98.5%
Water soluble matter	Max 0.1%
Moisture content	Max 0.1%
Chloride (Cl)	Max 0.04%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H332-H360Df-H373-H410 Precaution Statement: P201-P273-P308 + P313-P501

MAGNESIUM BROMIDE HEXAHYDRATE 99% EXTRAPURE

Magnesium dibromide hexahydrate

Product Code.	01584	Grade	
Purity	99%	CAS No.	13446-53-2
Molecular Formula	MgBr2.6H2O	Molecular Weight	292.20
H.S.Code	2827.59100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6 - 8 at 292.2 g/l at 25 °C	Density [g/cm3]	2	Solubility in water [% weight]	292.2 g/l at 20 °C

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99%
Heavy metal (as Pb)	Max 0.001%
Chloride (Cl)	Max 0.1%
Iron (Fe)	Max 0.002%
Sulphate (SO4)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

MAGNESIUM CHLORIDE HEXAHYDRATE 98% AR

Confirming to BP Magnesium dichloride hexahydrate

Product Code.	01590	Grade	AR
Purity	98%	CAS No.	7791-18-6
Molecular Formula	MgCl2.6H2O	Molecular Weight	203.30
H.S.Code	2827.31000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	7	Melting point/ Freezing point [°C]	118°C	Density [g/cm3]	1.59
Solubility in water [% weight]	Soluble in water				

Packaging



Specification

Appearance	Colorless crystals or white crystalline powder
Assay	98-101.0%
Alcohol insoluble matter	Passes test
Insoluble matter in water	Max 0.005%
Nitrogen compounds (as N)	Max 0.002%
Phosphate (PO4)	Max 0.0005%
Sulphate (SO4)	Max 0.002%
Arsenic (As)	Max 0.0002%
Barium (Ba)	Max 0.005%
Calcium (Ca)	Max 0.01%

Iron (Fe)	Max 0.0005%
Heavy metal (as Pb)	Max 0.0005%
Manganese (Mn)	Max 0.0005%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.005%
Strontium (Sr)	Max 0.005%
Water (H2O)	51 - 55%
pH (5 % solution)	5.0 - 6.5
Bromide (Br)	Max 0.05%

Safety Information and Hazard Symbols

MAGNESIUM CHLORIDE HEXAHYDRATE 98% EXTRAPURE

Confirms to IP Magnesium dichloride hexahydrate

Product Code.	01589	Grade	
Purity	98%	CAS No.	7791-18-6
Molecular Formula	MgCl2.6H2O	Molecular Weight	203.30
H.S.Code	2827.31000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	7	Melting point/ Freezing point [°C]	118°C	Density [g/cm3]	1.59
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Colorless crystals or White crystalline powder
Assay (as MgCl2.6H2O)	98.0-101.0%
Identification	Passes test
Appearance of solution	Passes test
Free acid, free alkali	Passes test
Arsenic (As)	Max 0.0002%
Heavy metal (as Pb)	Max 0.002%
Calcium (Ca)	Max 0.1%
Iron (Fe)	Max 0.001%
Sulphate (SO4)	Max 0.01%

Safety Information and Hazard Symbols

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MAGNESIUM FLUORIDE 97% EXTRAPURE

For glass industry Sellaite

Product Code.	01594	Grade	
Purity	97%	CAS No.	7783-40-6
Molecular Formula	MgF2	Molecular Weight	62.30
H.S.Code	2826.19100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1261°C	Boiling point [°C]	2239°C	Density [g/cm3]	3.15
Solubility in water [% weight]	Slightly soluble in water				

Packaging

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Specification

Appearance	White amorphous powder
Assay (on ignited basis)	Min 97.0%
Loss on dryig (at 105°C; 1 hr)	Max 2.0%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

MAGNESIUM NITRATE HEXAHYDRATE 98% AR

Nitromagnesite hexahydrate

Product Code.	01597	Grade	AR
Purity	98%	CAS No.	13446-18-9
Molecular Formula	Mg(NO3)2.6H2O	Molecular Weight	256.41
H.S.Code	2834.29200	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
Melting point/ Freezing point [°C]	89 °C	Flash point [°C]	93.3°C	Boiling point [°C]	330 °C
Density [g/cm3]	1.64	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	Colorless crystals or white crystalline powder
Assay (as Mg (NO3)2.6H2O)	98.0 - 102.0%
pH (5% solution in water; 25°C)	5.0 - 8.2
Insoluble matter	Max 0.005%
Chloride (Cl)	Max 0.001%
Phosphate (PO4)	Max 0.0005%
Sulphate (SO4)	Max 0.005%
Ammonium (NH4)	Max 0.003%
Barium (Ba)	Max 0.005%
Calcium (Ca)	Max 0.01%
Manganese (Mn)	Max 0.0005%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.005%

Strontium (Sr)	Max 0.005%
Heavy metals (by ICP-OES)	Max 0.0005%
Iron (Fe)	Max 0.0005%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

MAGNESIUM NITRATE HEXAHYDRATE 98% EXTRAPURE

Nitromagnesite hexahydrate

Product Code.	01596	Grade	Extrapure
Purity	98%	CAS No.	13446-18-9
Molecular Formula	Mg(NO3)2.6H2O	Molecular Weight	256.41
H.S.Code	2834.29200	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
Melting point/ Freezing point [°C]	89 °C	Flash point [°C]	93.3°C	Boiling point [°C]	330 °C
Density [g/cm3]	1.64	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	Colourless crystals or white crystalline powder
Assay (as Mg (NO3)2.6H2O)	Min 98.0%
pH (5% solution in water; 25°C)	4.0 - 8.5
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.01%
Heavy metal (as Pb)	Max 0.001%
Iron (Fe)	Max 0.001%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

MAGNESIUM OXIDE 98% AR (LIGHT)

Product Code.	01599	Grade	AR
Purity	98%	CAS No.	1309-48-4
Molecular Formula	MgO	Molecular Weight	40.30
H.S.Code	25199010.00000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	10.3	Melting point/ Freezing point [°C]	2852 °C	Boiling point [°C]	3600 °C
Density [g/cm3]	3.58	Solubility in water [% weight]	Insoluble in water		

Packaging



Specification

Appearance	A very light, white odourless powder slightly alkaline readily absorbs moisture and carbon di oxide when exposed to air
Assay (as MgO; on ignited basis)	98.0 -100.5%
Identification as per IP	To pass the test
Apparent Volume	15 gms occupies a volume of 150 ml
Appearance of solution	Solution 'A' is not more intensely colour than reference solution BS2
Arsenic (As ₂ O ₃)	Max 0.0004%
Heavy metal (as Pb)	Max 0.003%
Iron (Fe)	Max 0.1%
Chloride (Cl)	Max 0.125%
Sulphate (SO ₄)	Max 1.0%

Calcium (Ca)	Max 1.5%
Soluble substance	Max 2.0%
Substance insoluble in acetic acid	Max 0.1%
Loss on ignition	Max 8.0%

Safety Information and Hazard Symbols

MAGNESIUM OXIDE LIGHT 96% EXTRAPURE

Confirms USP specification Magnesia, Calcined Magnesite, Calcinated Magnesia

Product Code.	01598	Grade	Extrapure
Purity	96%	CAS No.	1309-48-4
Molecular Formula	MgO	Molecular Weight	40.30
H.S.Code	2519.90400	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	10.3	Melting point/ Freezing point [°C]	2852 °C	Boiling point [°C]	3600 °C
Density [g/cm3]	3.58	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	White powder
Assay (as MgO)	96 - 100.5%
Identification	Passes test
Loss on ignition (at 800°C)	Max 10%
Free alkali and soluble salts	Max 2%
Acid insoluble matter	Max 0.1%
Calcium (Ca)	Max 1.1%

Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.05%
Residual solvents	Meets the requirment

Safety Information and Hazard Symbols

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MAGNESIUM SULPHATE DRIED 98.5% EXTRAPURE

Epsom salts

Product Code.	01606	Grade	
Purity	98.5%	CAS No.	22189-08-8
Molecular Formula	MgSO4.H2O	Molecular Weight	0.00
H.S.Code	2833.21000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
pH value	5 - 8 at 50 g/l	Decomposition point [°C]	>150°C	Vapour pressure [20°C]	< 0.133 hPa at 20 °C
Density [g/cm3]	1.678	Solubility in water [% weight]	246.48 g/l at 20 °C - completely soluble		

Packaging

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Specification

Appearance	White crystalline powder
Assay (complexometric; on dried basis)	Min 98.5%
Heavy metal (as Pb)	Max 0.002%
Loss on drying (400 to 500°C)	26% to 32%
Chloride (Cl)	Max 0.04%
Arsenic (As)	Max 0.0005%
Iron (Fe)	Max 0.001%
Acidity or alkalinity	Passes test

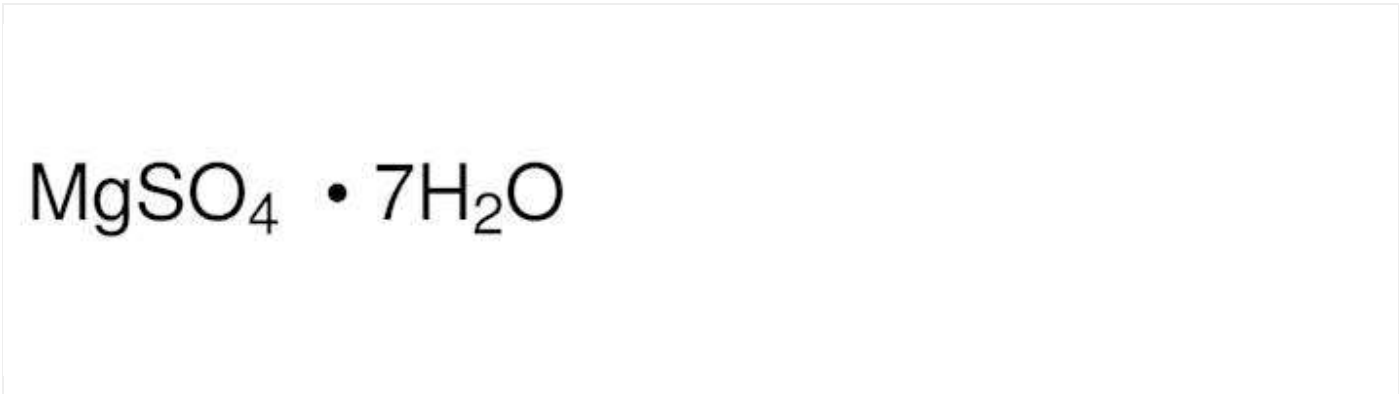
Safety Information and Hazard Symbols

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MAGNESIUM SULPHATE HEPTAHYDRATE 99% EXTRAPURE

(Confirms to IP, BP, USP) Epsom salt

Product Code.	01603	Grade	
Purity	99%	CAS No.	10034-99-8
Molecular Formula	MgSO4.7H2O	Molecular Weight	246.47
H.S.Code	2833.21000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
pH value	5 - 8 at 50 g/l	Decomposition point [°C]	>150°C	Vapour pressure [20°C]	< 0.133 hPa at 20 °C
Density [g/cm3]	1.678	Solubility in water [% weight]	246.48 g/l at 20 °C - completely soluble		

Packaging

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Specification

Appearance	A white, crystalline powder or brilliant, colorless crystals
Assay (on anhydrous basis)	99 - 100.5%
Solubility	Freely soluble in water, very soluble in boiling water, practically insoluble in alcohol
Identifications	To comply IP, BP, USP tests
Appearance of solution	To comply IP, BP, USP tests

pH (5% solution in water)	5.0 - 9.2
Acidity or alkalinity	To comply IP, BP test
Chloride (Cl)	Max. 0.014%
Heavy metal (as Pb)	Max. 0.001%
Arsenic (As)	Max 0.0002%
Iron (Fe)	Max 0.002%
Selenium (Se)	Max 0.003%
Loss on drying (at 450°C)	48.0 - 52.0%

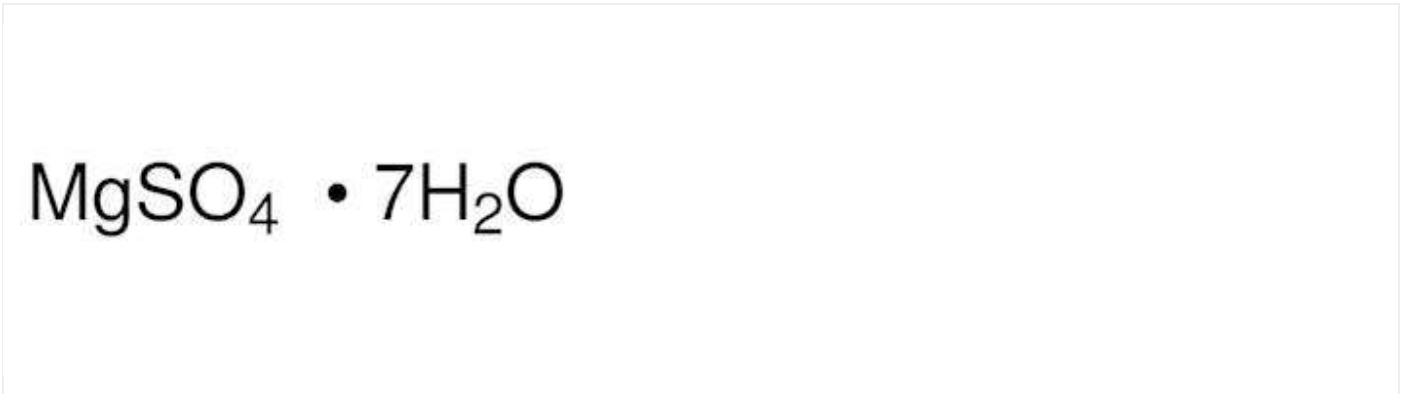
Safety Information and Hazard Symbols

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MAGNESIUM SULPHATE HEPTAHYDRATE 99.5% AR

Epsom salts

Product Code.	01604	Grade	AR
Purity	99.5%	CAS No.	10034-99-8
Molecular Formula	MgSO4.7H2O	Molecular Weight	246.47
H.S.Code	2833.21000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Odorless
pH value	5 - 8 at 50 g/l	Decomposition point [°C]	>150°C	Vapour pressure [20°C]	< 0.133 hPa at 20 °C
Density [g/cm3]	1.678	Solubility in water [% weight]	246.48 g/l at 20 °C - completely soluble		

Packaging

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Specification

Appearance	Colorless crystals or a white, crystalline powder
Assay	99.5 - 102.0%
Insoluble matter in water	Max 0.005%
pH (5% solution in water)	5 - 7
Nitrate (NO3)	Max 0.002%

Ammonium (NH4)	Max 0.002%
Chloride (Cl)	Max 0.0005%
Calcium (Ca)	Max 0.02%
Heavy metals (by ICP-OES)	Max 0.0005%
Iron (Fe)	Max 0.0005%
Potassium (K)	Max 0.005%
Manganese (Mn)	Max 0.0005%
Sodium (Na)	Max 0.005%
Strontium (Sr)	Max 0.005%

Safety Information and Hazard Symbols

MANGANESE (II) SULPHATE MONOHYDRATE 98% EXTRAPURE

Manganous Sulphate

Product Code.	01633	Grade	
Purity	98%	CAS No.	10034-96-5
Molecular Formula	MnSO4.H2O	Molecular Weight	169.02
H.S.Code	2833.29400	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Slightly pink crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	700 °C	Density [g/cm3]	2.95	Solubility in water [% weight]	Soluble in water

Packaging

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Specification

Appearance	Pink colored crystalline powder
Assay (as MnSO4. H2O)	Min 98%
Identity for Mn & SO4	Passes test
Appearance of solution	10% w/v solution in water is almost clear & slightly pink coloured free from foreign matter even after 24 hrs.
Substance reducing KMnO4 (as O)	Max 0.002%

Safety Information and Hazard Symbols

 
Symbol: GHS08, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H373-H411 Precaution Statement: P273

MANGANESE (II) SULPHATE MONOHYDRATE 99% AR

Manganous sulphate

Product Code.	01634	Grade	
Purity	99%	CAS No.	10034-96-5
Molecular Formula	MnSO4.H2O	Molecular Weight	169.02
H.S.Code	2833.29400	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Slightly pink crystalline	Odour	Odorless
pH value	3 - 3.5	Melting point/ Freezing point [°C]	700 °C	Density [g/cm3]	2.95
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Slightly pink colored crystalline powder
Assay	Min 99%
Insoluble matter	Max 0.01%
Chloride (Cl)	Max 0.005%
Calcium (Ca)	Max 0.005%
Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.002%
Magnesium (Mg)	Max 0.005%
Nickel (Ni)	Max 0.02%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.05%
Zinc (Zn)	Max 0.005%
Substance reducing KMnO4 (as O)	Passes test

Loss on ignition

10 - 12%

Safety Information and Hazard Symbols



Symbol: GHS08, GHS09

Signal Word: Warning

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

Hazardous Statement: H373-H411

Precaution Statement: P273

MANGANESE CARBONATE EXTRAPURE

Manganous carbonate

Product Code.	01627	Grade	
Purity		CAS No.	34156-69-9
Molecular Formula	MnCO3.xH2O	Molecular Weight	114.95
H.S.Code	2836.99900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Tan colored powder	Odour	Odorless
Melting point/ Freezing point [°C]	>200°C	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Tan colored powder
Manganese (Mn)	43 - 46%
Acid insoluble matter (HNO3 + H2O2)	Max 0.05%
Chloride (Cl)	Max 0.02%
Sulphate (SO4)	Max 0.5%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols

MANGANESE DIOXIDE 70% TECHNICAL GRADE

Manganese(IV) oxide

Product Code.	01630	Grade	Technical Grade
Purity	70%	CAS No.	1313-13-9
Molecular Formula	MnO2	Molecular Weight	86.94
H.S.Code	2820.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
Melting point/ Freezing point [°C]	535 °C	Density [g/cm3]	5.06	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	A black colored heavy powder
Assay	Min 70.0%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H332

MANGANESE DIOXIDE 80% AR

Manganese(IV) oxide

Product Code.	01631	Grade	AR
Purity	80%	CAS No.	1313-13-9
Molecular Formula	MnO2	Molecular Weight	86.94
H.S.Code	2820.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
Melting point/ Freezing point [°C]	535 °C	Density [g/cm3]	5.06	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	A black colored heavy powder
Assay	Min 80%
Free moisture	Max 3%
Insoluble matter in HCl	Max 0.5%
Iron (Fe)	Max 0.1%
Lead (Pb)	Max 0.09%
Copper (Cu)	Max 0.002%
Sulphate (SO4)	Max 1.2%
pH (5% water extract)	4.5 - 6.5

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H332

MERCURIC IODIDE RED 98.5% EXTRAPURE

Mercury(II) iodide

Product Code.	01664	Grade	
Purity	98.5%	CAS No.	7774-29-0
Molecular Formula	Hgl2	Molecular Weight	454.40
H.S.Code	2852.10000	Shelf Life	36 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Scarlet colour	Odour	Odorless
Melting point/ Freezing point [°C]	259 °C	Boiling point [°C]	354 °C	Density [g/cm3]	6.3
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Reddish orange powder
Assay (iodometric)	Min 98.5%
Substance insoluble in KI solution	Max 0.2%
Mercurous mercury (as Hg)	Max 0.1%
Soluble mercury salts (as Hg)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 1638 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H300-H310-H330-H373-H410 Precaution Statement: P260-P264-P273-P280-P284-P301 + P310

MERCURIC NITRATE 98.5% AR
Mercury(II) nitrate monohydrate

Product Code.	01667	Grade	
Purity	98.5%	CAS No.	7783-34-8
Molecular Formula	Hg(NO3)2.H2O	Molecular Weight	342.62
H.S.Code	2852.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless to white crystals	Odour	Slight nitric acid odor
Melting point/ Freezing point [°C]	79 °C	Vapour density	11	Density [g/cm3]	4.3
Solubility in water [% weight]	Soluble in water				

Specification

Appearance	White to off white hygroscopic crystalline powder
Assay (ex Hg)	Min 98.5%
Residue after reduction	Max 0.05%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.01%
Iron (Fe)	Max 0.005%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 1625 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H300-H310-H330-H373-H410 Precaution Statement: P260-P264-P273-P280-P284-P301 + P310

MERCURIC OXIDE YELLOW 99% EXTRAPURE

Mercury(II) oxide yellow

Product Code.	01672	Grade	Extrapure
Purity	99%	CAS No.	21908-53-2
Molecular Formula	HgO	Molecular Weight	216.59
H.S.Code	2852.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Orange red to yellow	Odour	Odorless
Melting point/ Freezing point [°C]	500 °C	Evaporation rate	0.6	Density [g/cm3]	11.14
Solubility in water [% weight]	Insoluble				

Specification

Appearance	Reddish to yellowish orange powder
Assay	Min 99.0%
Appearance of solution	Passes test
Impurities with an acidic or alkaline reaction	Passes test
Chloride (Cl)	Max 0.05%
Nitrate (NO3)	Passes test
Yellow mercury (II) oxide	Passes test
Substance not reducible with formic acid (Residue on ignition)	Max 0.05%
Loss on drying (at 105°C)	Max 0.5%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 1641 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H300-H310-H330-H373-H410 Precaution Statement: P260-P264-P273-P280-P284-P301 + P310

MERCURIC OXIDE YELLOW 99.3% AR

Mercury(II) oxide Yellow

Product Code.	01673	Grade	AR
Purity	99.3%	CAS No.	21908-53-2
Molecular Formula	HgO	Molecular Weight	216.59
H.S.Code	2852.10000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Orange red to yellow	Odour	Odorless
Melting point/ Freezing point [°C]	500 °C	Evaporation rate	0.6	Density [g/cm3]	11.14
Solubility in water [% weight]	Insoluble				

Specification

Appearance	Yellowish orange fine powder
Assay (complexometric)	99.3 - 100.5%
Substance insoluble in HCl	Max 0.03%
Chloride (Cl)	Max 0.025%
Sulphate (SO4)	Max 0.01%
Niitrogen compounds (N)	Max 0.005%
Iron (Fe)	Max 0.003%
Residue after reduction	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 1641 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H300-H310-H330-H373-H410 Precaution Statement: P260-P264-P273-P280-P284-P301 + P310

MOLYBDENUM TRIOXIDE 99% EXTRAPURE

Molybdenum trioxide

Product Code.	01762	Grade	
Purity	99%	CAS No.	1313-27-5
Molecular Formula	MoO3	Molecular Weight	143.94
H.S.Code	2825.70100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Pale yellow to green	Odour	Odorless
Melting point/ Freezing point [°C]	795 °C	Boiling point [°C]	1150°C	Density [g/cm3]	4.692
Solubility in water [% weight]	0.107 g/100 g water @ 180C				

Specification

Appearance	A pale yellow, green or gray powder
Assay	Min 99%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.05%
Phosphate, arsenate, silicate (as PO4)	Max 0.002%
Iron (Fe)	Max 0.002%
Ammonium (NH4)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08 Signal Word: Warning UN No.: 3288 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H319-H335-H351 Precaution Statement: P261-P281-P305 + P351 + P338

MOLYBDENUM TRIOXIDE 99.5% AR

Molybdenum trioxide

Product Code.	01763	Grade	AR
Purity	99.5%	CAS No.	1313-27-5
Molecular Formula	MoO3	Molecular Weight	143.94
H.S.Code	2825.70100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Pale yellow to green	Odour	Odorless
Melting point/ Freezing point [°C]	795 °C	Boiling point [°C]	1150°C	Density [g/cm3]	4.692
Solubility in water [% weight]	0.107 g/100 g water @ 180C				

Packaging

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Specification

Appearance	A pale yellow, green or gray powder
Assay	Min 99.5%
Substance insoluble in dilute NH3 (C=8.3%)	Max 0.01%
Chloride (Cl)	Max 0.002%
Arsenate, phosphate, silicate (PO4)	Max 0.001%
Sulphate (SO4)	Max 0.02%
Ammonium (NH4)	Max 0.002%
Nitrate (NO3)	Passes ACS test (~0.003%)
Phosphate (PO4)	Max 0.0005%
Heavy metal (as Pb)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS08

Signal Word: Warning

UN No.: 3288

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H319-H335-H351

Precaution Statement: P261-P281-P305 + P351 + P338

NEODYMIUM OXIDE 99.9% AR

Neodymium(III) oxide

Product Code.	01796	Grade	AR
Purity	99.9%	CAS No.	1313-97-9
Molecular Formula	Nd2O3	Molecular Weight	336.50
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Light blue powder	Odour	Odorless
Melting point/ Freezing point [°C]	2270°C	Vapour density	11.6	Density [g/cm3]	7.24
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	Light blue colored powder
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Safety Information and Hazard Symbols

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NICKEL CARBONATE EXTRAPURE FOR ELECTROPLATING

Used for electroplating. Nickel(II) carbonate hydroxide tetrahydrate; Nickel(II) carbonate basic

Product Code.	01811	Grade	
Purity		CAS No.	39430-27-8
Molecular Formula	Approx.NiCO3.2Ni(OH)2.4H2O	Molecular Weight	376.23
H.S.Code	2836.99900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Light green powder	Odour	Odorless
Density [g/cm3]	2.6	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	Light green powder
Nickel (Ni)	41 - 49%
Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.05%
Cobalt (Co)	Max 0.01%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H315-H317-H332-H334-H341-H350i-H360D-H372-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

NICKEL CHLORIDE HEXAHYDRATE 97% EXTRAPURE

Nickel(II) chloride hexahydrate

Product Code.	01813	Grade	
Purity	97%	CAS No.	7791-20-0
Molecular Formula	NiCl ₂ ·6H ₂ O	Molecular Weight	237.69
H.S.Code	2827.35000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Apple green crystalline	Odour	Odorless
pH value	4	Melting point/ Freezing point [°C]	1001°C	Vapour pressure mm/Hg	1 mm Hg @ 6710C
Density [g/cm ³]	3.55	Solubility in water [% weight]	2.54 kg/L @ 200C		

Specification

Appearance	Apple green crystalline powder
Assay (ex Ni)	Max 97%
Sulphate (SO ₄)	Max 0.01%
Lead (Pb)	Max 0.005%
Cobalt (Co)	Max 0.05%
Iron (Fe)	Max 0.005%
Zinc (Zn)	Max 0.15%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 3288 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H315-H317-H331-H334-H341-H350i-H360-H372-H410 Precaution Statement: P201-P261-P273-P280-P301 + P310-P311

NICKEL CHLORIDE HEXAHYDRATE 98% AR

Nickel(II) chloride hexahydrate

Product Code.	01814	Grade	AR
Purity	98%	CAS No.	7791-20-0
Molecular Formula	NiCl2.6H2O	Molecular Weight	237.69
H.S.Code	2827.35000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Apple green crystalline	Odour	Odorless
pH value	4	Melting point/ Freezing point [°C]	1001°C	Vapour pressure mm/Hg	1 mm Hg @ 6710C
Density [g/cm3]	3.55	Solubility in water [% weight]	2.54 kg/L @ 200C		

Packaging

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Specification

Appearance	Apple green crystalline powder
Assay (complexometric)	Min 98.0%
pH (5% solution in water)	4.0 - 6.0
Sulphate (SO4)	Max 0.005%
Lead (Pb)	Max 0.002%
Calcium (Ca)	Max 0.005%
Iron (Fe)	Max 0.001%
Cobalt (Co)	Max 0.005%
Copper (Cu)	Max 0.001%
Sodium (Na)	Max 0.01%
Zinc (Zn)	Max 0.001%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS08, GHS09

Signal Word: Danger

UN No.: 3288

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H301-H315-H317-H331-H334-H341-H350i-H360-H372-H410

Precaution Statement: P201-P261-P273-P280-P301 + P310-P311

NICKEL NITRATE HEXAHYDRATE 98% EXTRAPURE

Nickel(II) nitrate hexahydrate

Product Code.	01815	Grade	
Purity	98%	CAS No.	13478-00-7
Molecular Formula	Ni(NO3)2.6H2O	Molecular Weight	290.80
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Green crystals	Odour	Odorless
pH value	3.5 - 5.5	Melting point/ Freezing point [°C]	56 °C	Boiling point [°C]	137°C
Density [g/cm3]	2.05	Solubility in water [% weight]	238.5g/100cc water @ 00C		

Packaging

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Specification

Appearance	Green Crystal
Assay (ex Ni)	Min 98%
Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.05%
Cobalt (Co)	Max 0.1%
Iron (Fe)	Max 0.02%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS05, GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 2725 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272-H302-H315-H317-H318-H332-H334-H341-H350i-H360-H372-H410 Precaution Statement: P201-P220-P261-P273-P280-P305 + P351 + P338

NICKEL NITRATE HEXAHYDRATE 99% AR

Nickel(II) nitrate hexahydrate

Product Code.	01816	Grade	AR
Purity	99%	CAS No.	13478-00-7
Molecular Formula	Ni(NO3)2.6H2O	Molecular Weight	290.80
H.S.Code	2834.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Green crystals	Odour	Odorless
pH value	3.5 - 5.5	Melting point/ Freezing point [°C]	56 °C	Boiling point [°C]	137°C
Density [g/cm3]	2.05	Solubility in water [% weight]	238.5g/100cc water @ 00C		

Packaging

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Specification

Appearance	Green Crystal
Assay (complexometric)	Min 99.0%
Chloride (Cl)	Max 0.001%
Sulphate (SO4)	Max 0.005%
Ammonium (NH4)	Max 0.05%
Lead (Pb)	Max 0.001%
Copper (Cu)	Max 0.001%
Cobalt (Co)	Max 0.005%
Zinc (Zn)	Max 0.001%
Iron (Fe)	Max 0.001%
Calcium (Ca)	Max 0.005%
Sodium (Na)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS05, GHS07, GHS08, GHS09

Signal Word: Danger

UN No.: 2725

IMCO Class No.: 5.1

Packing Group: III

Hazardous Statement: H272-H302-H315-H317-H318-H332-H334-H341-H350i-H360-H372-H410

Precaution Statement: P201-P220-P261-P273-P280-P305 + P351 + P338

NICKEL OXIDE BLACK 70% EXTRAPURE

Nickel monoxide;Oxonickel

Product Code.	01817	Grade	Extrapure
Purity	70% (Ni)	CAS No.	1314-06-3
Molecular Formula	Ni2O3	Molecular Weight	165.39
H.S.Code	2825.40000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greyish black powder	Odour	Odorless
Density [g/cm3]	4.84	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Grayish black powder
Assay (as Ni; complexometric)	Min 70.0%
Lead (Pb)	Max 0.005%
Iron (Fe)	Max 0.05%
Cobalt (Co)	Max 0.03%
Zinc (Zn)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08 Signal Word: Danger Hazardous Statement: H317-H350i-H372-H413 Precaution Statement: P201-P280-P308 + P313

NICKEL OXIDE GREEN 75% EXTRAPURE

Nickel(II) oxide

Product Code.	01818	Grade	
Purity	75% (Ni)	CAS No.	1313-99-1
Molecular Formula	NiO	Molecular Weight	74.79
H.S.Code	2825.40000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Greyish green powder	Odour	Odorless
Density [g/cm3]	4.84	Solubility in water [% weight]	Insoluble in water		

Packaging

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Specification

Appearance	Green/ Grayish green colored powder
Nickel (Ni)	Min 75%
Sulphate (SO4)	Max 0.3%
Heavy metal (as Pb)	Max 0.02%
Insoluble matter in HCl	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08 Signal Word: Danger Hazardous Statement: H317-H350i-H372-H413 Precaution Statement: P201-P280-P308 + P313

NICKEL SULPHATE HEXAHYDRATE 98% AR

Nickel(II) sulfate hexahydrate

Product Code.	01821	Grade	AR
Purity	98%	CAS No.	10101-97-0
Molecular Formula	NiSO4.6H2O	Molecular Weight	262.86
H.S.Code	2833.24000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Emerald green crystalline	Odour	Odorless
pH value	4.5	Melting point/ Freezing point [°C]	100°C	Density [g/cm3]	2.03
Solubility in water [% weight]	75.6 g/100 cc water @ 15.50C				

Packaging

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Specification

Appearance	Emerald green crystalline powder
Assay	98.0 - 102.0%
Insoluble matter in water	Max 0.005%
pH of aqueous solution	4.0 - 6.0
Chloride (Cl)	Max 0.001%
Nitrogen compounds (as N)	Max 0.002%
Calcium (Ca)	Max 0.005%
Cobalt (Co)	Max 0.002%
Copper (Cu)	Max 0.005%
Iron (Fe)	Max 0.001%
Sodium (Na)	Max 0.05%
Magnesium (Mg)	Max 0.005%

Manganese (Mn)	Max 0.002%
Potassium (K)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3288 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H315-H317-H332-H334-H341-H350i-H360D-H372-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

NICKEL SULPHATE HEXAHYDRATE 98% EXTRAPURE

Nickel(II) sulfate hexahydrate

Product Code.	01820	Grade	
Purity	98%	CAS No.	10101-97-0
Molecular Formula	NiSO4.6H2O	Molecular Weight	262.86
H.S.Code	2833.24000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Emerald green crystalline	Odour	Odorless
pH value	4.5	Melting point/ Freezing point [°C]	100°C	Density [g/cm3]	2.03
Solubility in water [% weight]	75.6 g/100 cc water @ 15.50C				

Specification

Appearance	Emerald green crystalline powder
Assay	Min 98%
Chloride (Cl)	Max 0.01%
Alkalis (as Na)	Max 0.1%
Cobalt (Co)	Max 0.5%
Iron (Fe)	Max 0.02%
Heavy metal (as Pb)	Max 0.04%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3288 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H315-H317-H332-H334-H341-H350i-H360D-H372-H410 Precaution Statement: P201-P261-P273-P280-P308 + P313-P501

NIOBIUM PENTOXIDE 99.9% AR

Niobium(V) oxide

Product Code.	01833	Grade	
Purity	99.9%	CAS No.	1313-96-8
Molecular Formula	Nb2O5	Molecular Weight	265.81
H.S.Code	2825.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	1520 °C	Density [g/cm3]	4.47	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99.9%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

PLATINUM CHLORIDE HYDRATE (PT 40%) EXTRAPURE
Hexachloroplatinic acid; Hydrogen hexachloroplatinate(IV); Platinic chloride

Product Code.	02043	Grade	
Purity	40%	CAS No.	18497-13-7
Molecular Formula	H2PtCl6xH2O	Molecular Weight	409.81
H.S.Code	2843.90190	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Orange-Brown	Odour	Odorless
pH value	5 - 6	Melting point/ Freezing point [°C]	581 °C	Boiling point [°C]	115°C
Vapour density	18	Density [g/cm3]	2.43	Solubility in water [% weight]	Soluble in water

Packaging

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Specification

Appearance	Orange-Brown Powder or Chunks
Assay (as Pt)	About 40%

Safety Information and Hazard Symbols


Symbol: GHS05, GHS06, GHS08 Signal Word: Danger UN No.: 2507 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H301-H314-H317-H334 Precaution Statement: P261-P280-P301 + P310-P305 + P351 + P338-P310

POTASSIUM BROMIDE 98% EXTRAPURE

Confirms to BP, USP

Product Code.	02074	Grade	Extrapure
Purity	98%	CAS No.	7758-02-3
Molecular Formula	KBr	Molecular Weight	119.01
H.S.Code	2827.51200	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5 - 6 at 119 g/l at 25 °C	Melting point/ Freezing point [°C]	734 °C	Boiling point [°C]	1435 °C
Vapour pressure [20°C]	< 0.01 hPa at 20 °C	Density [g/cm3]	2.75	Solubility in water [% weight]	119 g/l at 20 °C - completely soluble

Packaging

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Specification

Appearance	White or almost white, crystalline powder or colorless crystals
Assay (argentometric)	98.0-100.5%
Appearance of solution	Passes test
Identification	Passes test
Acidity or alkalinity	Passes test

Bromate (BrO3)	Passes test
Chloride (Cl)	Max 0.6%
Iodide (I) (as per pharma)	Passes test
Sulphate (SO4)	Max 0.01%
Iron (Fe)	Max 0.002%
Heavy metal (as Pb)	Max 0.001%
Magnesium and alkali earth metals (as Ca)	Max 0.02%
Loss on dryig (at 105°C; 4 hrs)	Max 1.0%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

POTASSIUM BROMIDE 99.5% AR

Product Code.	02075	Grade	AR
Purity	99.5%	CAS No.	7758-02-3
Molecular Formula	KBr	Molecular Weight	119.01
H.S.Code	2827.51200	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5 - 6 at 119 g/l at 25 °C	Melting point/ Freezing point [°C]	734 °C	Boiling point [°C]	1435 °C
Vapour pressure [20°C]	< 0.01 hPa at 20 °C	Density [g/cm3]	2.75	Solubility in water [% weight]	119 g/l at 20 °C - completely soluble

Packaging

Specification

Appearance	White crystalline powder
Assay (argentometric)	Min 99.5%
Insoluble matter	Max 0.005%
pH (5% solution in water)	5.0 - 8.8
Bromate (BrO3)	Max 0.001%

Iodate (IO3)	Max 0.001%
Chloride (Cl)	Max 0.1%
Iodide (I)	Max 0.001%
Sulphate (SO4)	Max 0.005%
Total nitrogen (N)	Max 0.001%
Heavy metals (by ICP-OES)	Max 0.0005%
Barium (Ba)	Max 0.002%
Calcium (Ca)	Max 0.002%
Iron (Fe)	Max 0.0005%
Magnesium (Mg)	Max 0.001%
Sodium (Na)	Max 0.02%
Loss on drying (at 105°C)	Max 0.5%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

POTASSIUM BROMIDE IR SPECTROSCOPY

Product Code.	02076	Grade	For IR Spectroscopy
Purity		CAS No.	7758-02-3
Molecular Formula	KBr	Molecular Weight	119.01
H.S.Code	2827.51200	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5 - 6 at 119 g/l at 25 °C	Melting point/ Freezing point [°C]	734 °C	Boiling point [°C]	1435 °C
Vapour pressure [20°C]	< 0.01 hPa at 20 °C	Density [g/cm3]	2.75	Solubility in water [% weight]	119 g/l at 20 °C - completely soluble

Specification

Appearance	White crystalline powder
Suitability (for IR Spectrometry)	Passes test

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

POTASSIUM CARBONATE ANHYDROUS 99% EXTRAPURE

Product Code.	02079	Grade	Extrapure
Purity	99%	CAS No.	584-08-7
Molecular Formula	K ₂ CO ₃	Molecular Weight	138.21
H.S.Code	2836.40000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	11 - 13 at 138 g/l at 25 °C	Melting point/ Freezing point [°C]	891 °C	Density [g/cm ³]	2.43
Solubility in water [% weight]	138 g/l at 20 °C - completely soluble				

Packaging



Specification

Appearance	A hygroscopic white crystalline powder or granules
Assay (acidimetric)	Min 99%
Insoluble matter in water	Max 0.02%

Loss on dryig (at 300°C)	Max 3%
Chloride (Cl)	Max 0.01%
Phosphate (PO4)	Max 0.005%
Sulphate (SO4)	Max 0.05%
Calcium (Ca)	Max 0.01%
Iron (Fe)	Max 0.01%
Magnesium (Mg)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

POTASSIUM CARBONATE ANHYDROUS 99.5% AR

Confirming to BP, USP Potash, pearl ash

Product Code.	02081	Grade	AR
Purity	99.5%	CAS No.	584-08-7
Molecular Formula	K2CO3	Molecular Weight	138.21
H.S.Code	2836.40000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	11 - 13 at 138 g/l at 25 °C	Melting point/ Freezing point [°C]	891 °C	Density [g/cm3]	2.43
Solubility in water [% weight]	138 g/l at 20 °C - completely soluble				

Packaging

Specification

Appearance	Hygroscopic white crystalline powder or granules
Assay (after drying at 300°C)	99.5 - 100.5%
Insoluble matter	Max 0.01%
Loss on dryig (at 300°C)	Max 0.5%
Sulphur compounds (as SO4)	Max 0.004%
Chloride (Cl)	Max 0.002%

Phosphate (PO ₄)	Max 0.001%
Silicate (SiO ₂)	Max 0.005%
Calcium (Ca)	Max 0.001%
Iron (Fe)	Max 0.0005%
Magnesium (Mg)	Max 0.0005%
Sodium (Na)	Max 0.02%
Heavy metals (by ICP-OES)	Max 0.0005%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

POTASSIUM CHLORIDE 99% EXTRAPURE

Conforms to IP, BP specification

Product Code.	02083	Grade	
Purity	99%	CAS No.	7447-40-7
Molecular Formula	KCl	Molecular Weight	74.56
H.S.Code	3104.20000	Shelf Life	60 Months

KCl

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	7	Melting point/ Freezing point [°C]	770 °C	Boiling point [°C]	1500 °C
Density [g/cm3]	1.98	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	White crystalline powder
Assay (argentometric)	99-100.5%
Identification	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
Bromide (Br)	Max 0.1%
Iodide (I)	Passes test

Sulphate (SO4)	Max 0.03%
Heavy metal (as Pb)	Max 0.001%
Barium (Ba)	Passes test
Magnesium and alkali earth metals	Passes test
Calcium & magnesium	Passes test
Iron (Fe)	Max 0.002%
Arsenic (As)	Max 0.0001%
Loss on drying (at 130°C)	Max 1.0%

Safety Information and Hazard Symbols

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POTASSIUM CHLORIDE 99.5% AR

Product Code.	02084	Grade	
Purity	99.5%	CAS No.	7447-40-7
Molecular Formula	KCl	Molecular Weight	74.56
H.S.Code	3104.20000	Shelf Life	60 Months

KCl

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	7	Melting point/ Freezing point [°C]	770 °C	Boiling point [°C]	1500 °C
Density [g/cm3]	1.98	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	White crystalline powder
Assay	99.5 - 100.5%
pH (2% solution in water)	5.5 - 8.5
Insoluble matter in water	Max 0.01%
Bromide (Br)	Max 0.01%
Iodide (I)	Max 0.002%
Sulphate (SO4)	Max 0.005%

Phosphate (PO4)	Max 0.005%
Total nitrogen (N)	Max 0.001%
Heavy metal (as Pb)	Max 0.0005%
Iron (Fe)	Max 0.0003%
Calcium (Ca)	Max 0.002%
Barium (Ba)	Max 0.001%
Magnesium (Mg)	Max 0.001%
Sodium (Na)	Max 0.02%
Loss on drying (at 130°C)	Max 0.2%

Safety Information and Hazard Symbols

POTASSIUM CHLOROPLATINATE

Potassium hexachloroplatinate(IV); Dipotassium hexachloroplatinate; Dipotassium platinum hexachloride; Platinic potassium chloride, Platinum potassium chloride; Potassium platinum(IV) chloride; Potassium platinum(IV) hexachloride

Product Code.	02082	Grade	
Purity		CAS No.	16921-30-5
Molecular Formula	K2PtCl6	Molecular Weight	486.00
H.S.Code	2843.90190	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder	Odour	Odorless
pH value	3 - 4	Melting point/ Freezing point [°C]	250 °C	Density [g/cm3]	3.4999
Solubility in water [% weight]	50 g/L (95°C)				

Packaging

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Specification

Appearance	A yellow powder
Pt content	~ 40%

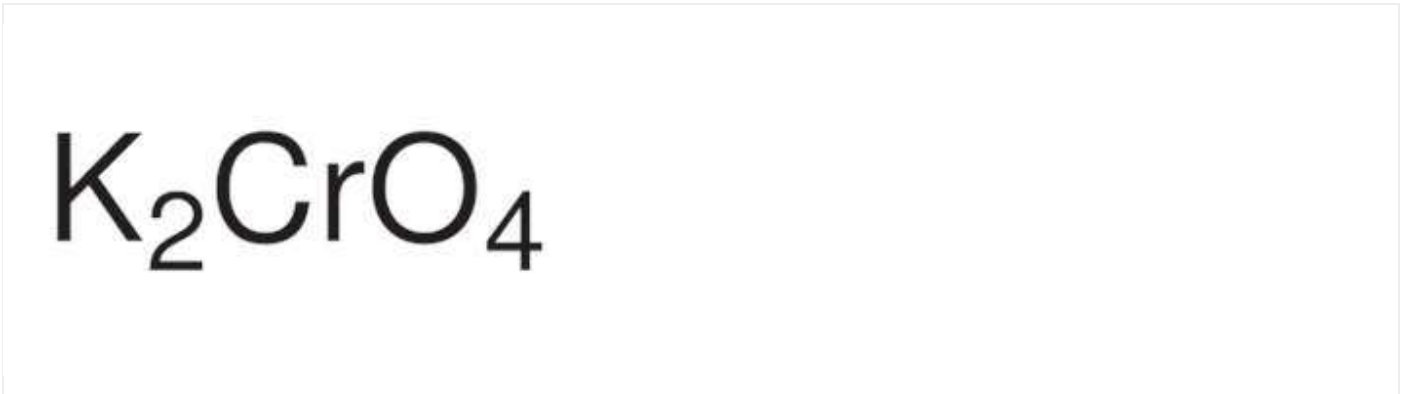
Safety Information and Hazard Symbols


Symbol: GHS05, GHS06, GHS08 Signal Word: Danger UN No.: 3290 IMCO Class No.: 6.1,8 Packing Group: II Hazardous Statement: H301-H317-H318-H334 Precaution Statement: P261-P280-P301 + P310-P305 + P351 + P338-P342 + P311

POTASSIUM CHROMATE 99% EXTRAPURE

Chromic acid dipotassium salt

Product Code.	02089	Grade	
Purity	99%	CAS No.	7789-00-6
Molecular Formula	K2CrO4	Molecular Weight	194.19
H.S.Code	2841.50900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow	Odour	Odorless
pH value	8.5 - 10 at 50 g/l at 20 °C	Melting point/ Freezing point [°C]	971 °C	Boiling point [°C]	1000°C
Vapour density	6.7	Density [g/cm3]	2.73	Solubility in water [% weight]	69.9g/100 g water @ 200C

Packaging

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Specification

Appearance	Lemon yellow crystalline powder
Assay (oxidimetric)	Min 99%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.05%
Sodium (Na)	Max 0.5%

Calcium (Ca)	Max 0.05%
Loss on drying (at 105°C)	Max 0.5%
pH (5% solution in water)	8.6 - 9.8

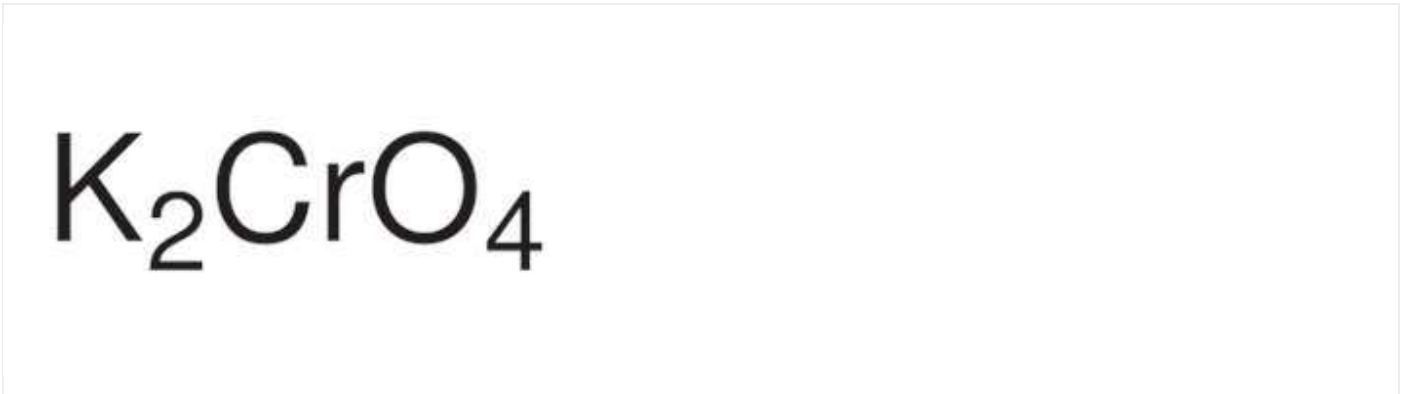
Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3288 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H315-H317-H319-H335-H340-H350i-H410 Precaution Statement: P201-P261-P273-P280-P305 + P351 + P338-P308 + P313

POTASSIUM CHROMATE 99.5% AR

Chromic acid dipotassium salt

Product Code.	02090	Grade	
Purity	99.5%	CAS No.	7789-00-6
Molecular Formula	K2CrO4	Molecular Weight	194.20
H.S.Code	2841.50900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow	Odour	Odorless
pH value	8.5 - 10 at 50 g/l at 20 °C	Melting point/ Freezing point [°C]	971 °C	Boiling point [°C]	1000°C
Vapour density	6.7	Density [g/cm3]	2.73	Solubility in water [% weight]	69.9g/100 g water @ 200C

Packaging

Specification

Appearance	Lemon yellow crystalline powder
Assay (iodometric)	Min 99.5%
Insoluble matter in water	Max 0.005%
pH (5% solution in water)	9.0 - 9.8
Chloride (Cl)	Max 0.001%

Sulphate (SO4)	Max 0.01%
Lead (Pb)	Max 0.005%
Calcium (Ca)	Max 0.005%
Sodium (Na)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 3288 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H315-H317-H319-H335-H340-H350i-H410 Precaution Statement: P201-P261-P273-P280-P305 + P351 + P338-P308 + P313

POTASSIUM IODATE 99% EXTRAPURE

Product Code.	02128	Grade	Extrapure
Purity	99%	CAS No.	7758-05-6
Molecular Formula	KIO3	Molecular Weight	214.00
H.S.Code	2829.90100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	560 °C	Density [g/cm3]	3.93	Solubility in water [% weight]	32 g in 100cc @ 1000C

Packaging



Specification

Appearance	White crystalline powder
Assay (iodometric)	Min 99.0%
pH (5% solution in water)	5 - 8
Chloride, Chlorate, Bromide (as Cl)	Max 0.02%
Iodide (I)	Max 0.002%

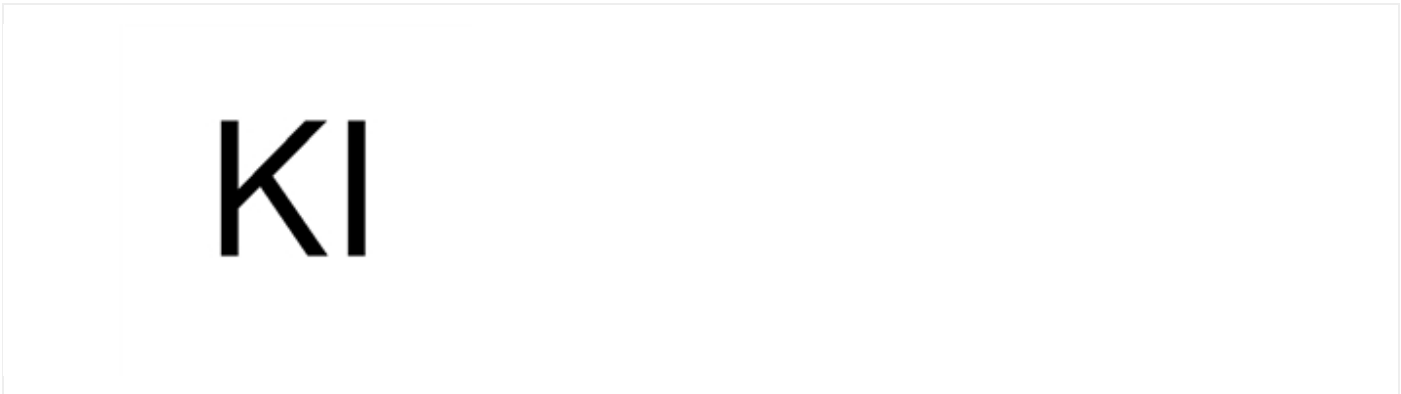
Safety Information and Hazard Symbols

 
Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1479 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

POTASSIUM IODIDE 99% EXTRAPURE

Confirms IP, BP, USP Potide

Product Code.	02133	Grade	Extrapure
Purity	99%	CAS No.	7681-11-0
Molecular Formula	KI	Molecular Weight	166.00
H.S.Code	2827.60100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6 - 9 at 166 g/l at 25 °C	Melting point/ Freezing point [°C]	681 °C	Boiling point [°C]	1330 °C
Vapour pressure mm/Hg	1 mm Hg at 745 °C	Density [g/cm3]	3.13	Solubility in water [% weight]	166 g/l at 20 °C - completely soluble

Packaging

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Specification

Appearance	White crystalline powder
Assay (as KI; on anhydrous basis)	99.0 - 100.5%
Insoluble matter in water	Max 0.01%
Nitrate, nitrite and ammonia	Passes test
Chloride & bromide (as Cl)	Max 0.05%

Free alkali (as K ₂ CO ₃)	Passes test
Sulphate (SO ₄)	Max 0.015%
Iodate (IO ₃)	Max 0.0003%
Thiosulphate (S ₂ O ₃)	Max 0.005%
Heavy metal (as Pb)	Max 0.001%
Iron (Fe)	Max 0.001%
Loss on drying (at 105°C)	Max 1%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H315-H319 Precaution Statement: P305 + P351 + P338

POTASSIUM IODIDE 99.5% AR

Product Code.	02134	Grade	AR
Purity	99.5%	CAS No.	7681-11-0
Molecular Formula	KI	Molecular Weight	166.00
H.S.Code	2827.60100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6 - 9 at 166 g/l at 25 °C	Melting point/ Freezing point [°C]	681 °C	Boiling point [°C]	1330 °C
Vapour pressure mm/Hg	1 mm Hg at 745 °C	Density [g/cm3]	3.13	Solubility in water [% weight]	166 g/l at 20 °C - completely soluble

Packaging

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Specification

Appearance	White crystalline powder
Assay (on anhydrous basis)	Min 99.5%
Heavy metal (as Pb)	Max 0.0005%
Nitrogen compounds (as N)	Max 0.001%
Thiosulphate	Max 0.005%

Free alkali	Max 0.02%
Loss on drying (at 105°C)	Max 0.2%
pH (5 % solution)	6.0-9.0
Chloride & bromide (as Cl)	Max 0.01%
Iodate (IO ₃)	Max 0.0005%
Phosphate (PO ₄)	Max 0.001%
Sulphate (SO ₄)	Max 0.001%
Arsenic (As)	Max 0.00001%
Barium (Ba)	Max 0.002%
Calcium (Ca)	Max 0.001%
Iron (Fe)	Max 0.0003%
Magnesium (Mg)	Max 0.001%
Sodium (Na)	Max 0.03%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H302-H315-H319

Precaution Statement: P305 + P351 + P338

POTASSIUM NITRATE 99% EXTRAPURE

Product Code.	02143	Grade	Extrapure
Purity	99%	CAS No.	7757-79-1
Molecular Formula	KNO3	Molecular Weight	101.10
H.S.Code	2834.21000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5.5 - 8.0	Melting point/ Freezing point [°C]	334 °C	Boiling point [°C]	400°C
Vapour density	3	Density [g/cm3]	2.109	Solubility in water [% weight]	36 gm/100 ml water

Specification

Appearance	White crystalline powder
Assay (Titration after Ion exchange)	Min 99%
pH (5% solution in water)	4.5 - 8.5
Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.01%
Ammonium (NH4)	Max 0.004%
Arsenic (As)	Max 0.0003%
Lead (Pb)	Max 0.005%
Iron (Fe)	Max 0.001%

Safety Information and Hazard Symbols


Symbol: GHS03 Signal Word: Warning UN No.: 1486 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272 Precaution Statement: P220

POTASSIUM NITRATE 99%, EXTRA PURE

Product Code.	2143A	Grade	Extrapure
Purity	99%	CAS No.	7757-79-1
Molecular Formula	KNO3	Molecular Weight	101.10
H.S.Code	2834.21000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5.5 - 8.0	Melting point/ Freezing point [°C]	334 °C	Boiling point [°C]	400°C
Vapour density	3	Density [g/cm3]	2.109	Solubility in water [% weight]	36 gm/100 ml water

Specification

Appearance (Color)	White
Appearance (Form)	Crystalline powder, crystals and chunks
Titration after Ion exchange	99.0 to 100.5 %
Heavy metals (as Pb)	≤10 ppm
Insoluble matter	≤0.1 % (in water)
Chloride (Cl)	≤0.002 %
Sulfate (SO4)	≤0.005 %
Iron (Fe)	≤0.001 %

Safety Information and Hazard Symbols


Symbol: GHS03 Signal Word: Warning UN No.: 1486 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272 Precaution Statement: P220

POTASSIUM NITRITE 99% AR

Confirms to BP, USP Saltpetre, Nitrate of potash

Product Code.	02144	Grade	
Purity	99%	CAS No.	7757-79-1
Molecular Formula	KNO3	Molecular Weight	101.11
H.S.Code	2834.21000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5.5 - 8.0	Melting point/ Freezing point [°C]	334 °C	Boiling point [°C]	400°C
Vapour density	3	Density [g/cm3]	2.109	Solubility in water [% weight]	36 gm/100 ml water

Packaging

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Specification

Appearance	White crystalline powder
Assay (as KNO3)	99 - 100.5%
Identity	Passes test
Appearance of solution	Passes test
Reducing substance	Passes test
pH (5% solution in water; 20°C)	4.5 - 8.5
Acidity or alkalinity	Passes test
Chloride (Cl)	Max 0.001%
Chlorate and perchlorate (as Cl)	Passes test
Sulphate (SO4)	Max 0.003%
Phosphate (PO4)	Max 0.0005%
Heavy metal (as Pb)	Max 0.0005%
Arsenic (As)	Max 0.0003%

Iron (Fe)	Max 0.0003%
Calcium (Ca)	Max 0.001%
Sodium (Na)	Max 0.02%
Ammonium (NH ₄)	Max 0.001%
Iodate (IO ₃)	Max 0.0005%
Nitrite (NO ₂)	Max 0.001%
Loss on drying (at 105°C)	Max 0.5%

Safety Information and Hazard Symbols


Symbol: GHS03 Signal Word: Warning UN No.: 1486 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272 Precaution Statement: P220

POTASSIUM PYROANTIMONATE 98.5% EXTRAPURE

Potassium hexahydroxoantimonate(V); Potassium antimonate

Product Code.	02167	Grade	Extrapure
Purity	98.5%	CAS No.	12208-13-8
Molecular Formula	KSb(OH)6	Molecular Weight	262.89
H.S.Code	2841.90000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Solubility in water [% weight]	Slightly Soluble
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Packaging

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Specification

Appearance	White powder
Assay (on ignited basis)	Min 98.5%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 1549 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H332-H411 Precaution Statement: P273

POTASSIUM TELLURITE HYDRATE 90% FOR MICROBIOLOGY

Product Code.	02180	Grade	For Microbiology
Purity	90%	CAS No.	123333-66-4
Molecular Formula	K2TeO3.xH2O	Molecular Weight	253.80
H.S.Code	2842.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder
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Packaging

Specification

Appearance	White to off white powder
Assay	Min 90%
Tellurium (Te) (anhydrous)	47.8 - 51.3 %
Solubility (50 mg/mL in water)	Clear to slightly hazy colorless to faint yellow solution

Safety Information and Hazard Symbols


Symbol: GHS06 Signal Word: Danger UN No.: 3284 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H315-H319-H335 Precaution Statement: P261-P301 + P310-P305 + P351 + P338

POTASSIUM TETRAOXALATE DIHYDRATE 97% EXTRAPURE

Oxalic acid hemipotassium salt

Product Code.	02182	Grade	
Purity	97%	CAS No.	6100-20-5
Molecular Formula	C4H3KO8.2H2O	Molecular Weight	254.20
H.S.Code	2917.11900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	pH value	1 - 2.5 at 25.4 g/l at 25 °C
Solubility in water [% weight]	25.4 g/l at 20 °C				

Packaging

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Specification

Appearance	Colorless to white powder, crystals or chunks
Assay (redox titration)	97.0-103.0%

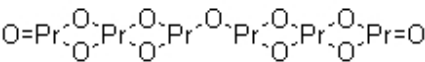
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H312 Precaution Statement: P280

PRASEODYMIUM OXIDE 99.9% AR

Praseodymium(III) oxide

Product Code.	02189	Grade	
Purity	99.9%	CAS No.	12037-29-5
Molecular Formula	Pr6O11	Molecular Weight	1021.44
H.S.Code	2846.90900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Black powder	Odour	Odorless
Melting point/ Freezing point [°C]	2200 °C	Density [g/cm3]	6.5		

Packaging

Specification

Appearance	Black powder
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Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

RHODIUM TRICHLORIDE TRIHYDRATE ('RH' 40%)

Rhodium(III) chloride trihydrate;

Product Code.	02255	Grade	For Synthesis
Purity		CAS No.	13569-65-8
Molecular Formula	RhCl3.3H2O	Molecular Weight	263.31
H.S.Code	2843.90190	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Reddish brown	Melting point/ Freezing point [°C]	100 °C
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Packaging

Specification

Appearance	Reddish brown powder
Assay (as Rh)	About 40%

Safety Information and Hazard Symbols

Symbol: GHS05, GHS07 Signal Word: Danger UN No.: 3260 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H318 Precaution Statement: P280-P305 + P351 + P338

RUBIDIUM CHLORIDE 98% AR

Rubidium(I) chloride

Product Code.	02264	Grade	AR
Purity	98%	CAS No.	7791-11-9
Molecular Formula	RbCl	Molecular Weight	120.92
H.S.Code	2827.39900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	pH value	7
Melting point/ Freezing point [°C]	715°C	Boiling point [°C]	1390°C	Density [g/cm3]	2.76
Solubility in water [% weight]	910 g/l in water (200C)				

Packaging

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Specification

Appearance	White powder
Assay	Min 98%
Sulphate (SO4)	Max 0.02%
Total nitrogen (N)	Max 0.003%
Aluminium (Al)	Max 0.001%
Copper (Cu)	Max 0.0003%
Iron (Fe)	Max 0.0003%
Magnesium (Mg)	Max 0.0005%
Lead (Pb)	Max 0.003%
Zinc (Zn)	Max 0.0003%

Safety Information and Hazard Symbols

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SAMARIUM OXIDE 99.9% AR

Samaria

Product Code.	02280	Grade	
Purity	99.9%	CAS No.	12060-58-1
Molecular Formula	Sm2O3	Molecular Weight	348.72
H.S.Code	2846.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Cream coloured powder	Odour	Odorless
Melting point/ Freezing point [°C]	2300°C	Density [g/cm3]	8.347	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	Cream colored powder
Assay	Min 99.9%

Safety Information and Hazard Symbols

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SELENIUM DIOXIDE (SUBLIMED) 99% EXTRAPURE

Selenium oxide

Product Code.	02290	Grade	
Purity	99%	CAS No.	8/4/7446
Molecular Formula	SeO2	Molecular Weight	110.96
H.S.Code	2811.29900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Almost White or yellowish- white to slightly reddish powder.	Odour	Vapor has a pungent sour smell
Melting point/ Freezing point [°C]	315 °C	Density [g/cm3]	3.95	Solubility in water [% weight]	28% in water @ 200C

Packaging

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Specification

Appearance	Almost White or yellowish- white to slightly reddish powder.
Assay	Min 99%
Chloride (Cl)	Max 0.05%
Sulphate (SO4)	Max 0.005%
Iron (Fe)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 3283 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H331-H373-H410 Precaution Statement: P261-P273-P301 + P310-P311-P501

SILVER BROMIDE (LAB) 99% EXTRAPURE

Bromargyrite; Bromyrite, Silver(I) bromide

Product Code.	02318	Grade	(for synthesis)
Purity	99%	CAS No.	7785-23-1
Molecular Formula	AgBr	Molecular Weight	187.77
H.S.Code	2843.29000	Shelf Life	36 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Yellow powder or Yellowish gray powder	Odour	Odorless
Melting point/ Freezing point [°C]	432 °C	Boiling point [°C]	700°C	Density [g/cm3]	6.473
Solubility in water [% weight]	0.135 mg/l at 25°C				

Packaging

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Specification

Appearance	Yellow powder or Yellowish gray powder
Assay (ex Ag)	Min 99.0%

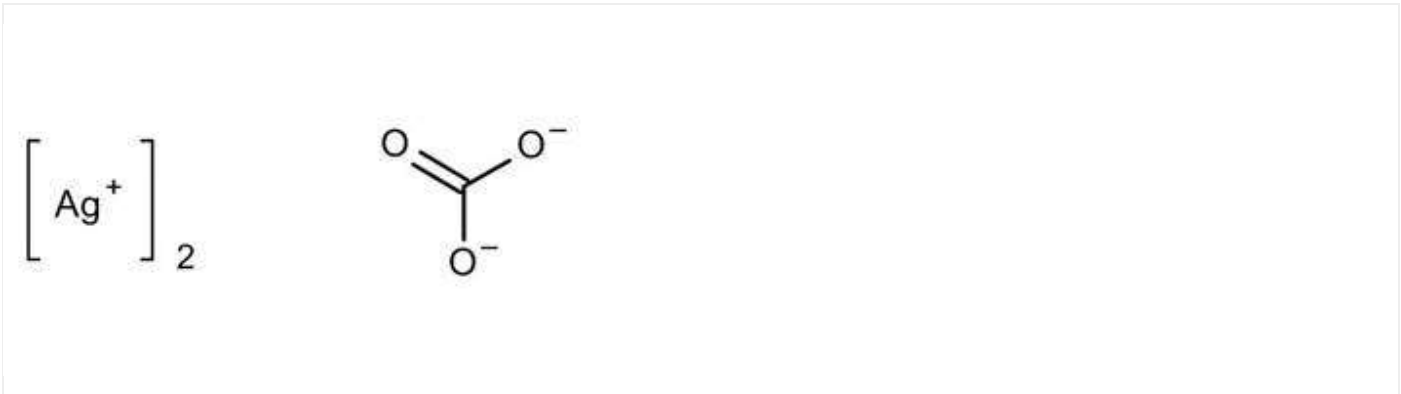
Safety Information and Hazard Symbols

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SILVER CARBONATE 99% EXTRAPURE

Silver(I) carbonate

Product Code.	02319	Grade	
Purity	99%	CAS No.	534-16-7
Molecular Formula	Ag2CO3	Molecular Weight	275.75
H.S.Code	2843.29000	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Greenish yellow	Odour	Odorless
Melting point/ Freezing point [°C]	210 °C	Decomposition point [°C]	218 °C	Density [g/cm3]	6.08
Solubility in water [% weight]	Slightly soluble in water				

Packaging

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Specification

Appearance	Greenish yellow powder
Assay	Min 99%
Chloride (Cl)	Max 0.005%
Nitrate (NO3)	Max 0.05%
Arsenic (As)	Max 0.0001%
Lead (Pb)	Max 0.003%

Iron (Fe)	Max 0.002%
Loss on drying (at 105°C)	Max 0.2%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

SILVER CHLORIDE 99% EXTRAPURE

Silver(I) chloride; Cerargyrite; Chlorargyrite; Horn silver

Product Code.	02320	Grade	Extrapure
Purity	99%	CAS No.	7783-90-6
Molecular Formula	AgCl	Molecular Weight	143.32
H.S.Code	2843.29000	Shelf Life	36 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	455 °C	Boiling point [°C]	1550°C	Vapour pressure mm/Hg	1 mm Hg at 912 °C
Density [g/cm3]	5.56	Solubility in water [% weight]	Slightly soluble in water		

Packaging

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Specification

Appearance	White crystalline powder
Assay (ex Ag)	Min 99.0%
Nitrate (NO3)	Max 0.05%

Safety Information and Hazard Symbols


Symbol: GHS09 Signal Word: Warning Hazardous Statement: H400 Precaution Statement: P273

SILVER IODIDE (LAB) 99% EXTRAPURE

Silver(I) iodide

Product Code.	02321	Grade	
Purity	99%	CAS No.	7783-96-2
Molecular Formula	AgI	Molecular Weight	234.77
H.S.Code	2843.29000	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Light yellow	Odour	Odorless
Melting point/ Freezing point [°C]	552°C	Boiling point [°C]	1506°C	Density [g/cm3]	5.68
Solubility in water [% weight]	Insoluble in water				

Specification

Appearance	Yellow to yellow green powder
Assay (ex Ag)	Min 99%

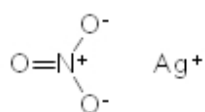
Safety Information and Hazard Symbols


Symbol: GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H410 Precaution Statement: P273-P501 Risk Statement: 50/53 Safety Statement: 22-24/25

SILVER NITRATE 99% EXTRAPURE

Nitric acid silver (I) salt ;

Product Code.	02322	Grade	Extrapure
Purity	99%	CAS No.	7761-88-8
Molecular Formula	AgNO3	Molecular Weight	169.87
H.S.Code	2843.21000	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6	Melting point/ Freezing point [°C]	212 °C	Boiling point [°C]	440 °C
Vapour density	4.4	Density [g/cm3]	4.352	Solubility in water [% weight]	219g/100g water @ 200C
Partition coefficient Log Pow octanol / water at 20°C	5	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2		

Packaging

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Specification

Appearance	Colorless Crystals.
Assay (on anhydrous basis)	Min 99%
Chloride (Cl)	Max 0.001%

Sulphate (SO ₄)	Max 0.01%
Iron (Fe)	Max 0.001%
Lead (Pb)	Max 0.002%
Substance not precipitated by HCl (as SO ₄)	Max 0.3%

Safety Information and Hazard Symbols



Symbol: GHS03, GHS05, GHS09

Signal Word: Danger

UN No.: 1493

IMCO Class No.: 5.1

Packing Group: II

Hazardous Statement: H272-H314-H410

Precaution Statement: P220-P273-P280-P305 + P351 + P338-P310-P501

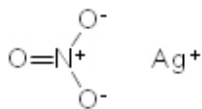
Risk Statement: 8-34-50/53

Safety Statement: 26-36/37/39-45-60-61

SILVER NITRATE 99.9% AR

Nitric acid silver(I) salt

Product Code.	02323	Grade	AR
Purity	99.9%	CAS No.	7761-88-8
Molecular Formula	AgNO3	Molecular Weight	169.87
H.S.Code	2843.21000	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6	Melting point/ Freezing point [°C]	212 °C	Boiling point [°C]	440 °C
Vapour density	4.4	Density [g/cm3]	4.352	Solubility in water [% weight]	219g / 100g water @ 20°C
Partition coefficient Log Pow octanol / water at 20°C	5	Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2		

Packaging

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Specification

Appearance	Colorless Crystals.
Assay (on anhydrous basis)	Min 99.9%
Alcohol insoluble matter	Passes test

Clarity of solution	Passes ACS test
Chloride (Cl)	Max 0.0005%
Sulphate (SO4)	Max 0.002%
Alkalies and other metals	Max 0.05%
Bismuth (Bi)	Max 0.0005%
Copper (Cu)	Max 0.0002%
Iron (Fe)	Max 0.0002%
Sodium (Na)	Max 0.002%
Lead (Pb)	Max 0.001%
Free acid	Passes test
Substance not precipitated by HCl	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS05, GHS09 Signal Word: Danger UN No.: 1493 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H314-H410 Precaution Statement: P220-P273-P280-P305 + P351 + P338-P310-P501

SILVER OXIDE 97% EXTRAPURE

Silver (I) oxide

Product Code.	02331	Grade	
Purity	97%	CAS No.	20667-12-3
Molecular Formula	Ag ₂ O	Molecular Weight	231.74
H.S.Code	2843.29000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Brownish black powder	Odour	Odorless
Melting point/ Freezing point [°C]	300°C	Density [g/cm ³]	7.22	Solubility in water [% weight]	0.0017 gm/ 100 ml water @ 200C

Specification

Appearance	Brownish black powder
Assay	Min 97%
Alkalinity	Max 5 ml N%
Nitrate (NO ₃)	Max 0.05%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.1%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1479 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

SILVER SULPHATE 98.5% EXTRAPURE

Sulfuric acid disilver (I) salt

Product Code.	02332	Grade	Extrapure
Purity	98.5%	CAS No.	10294-26-5
Molecular Formula	Ag2SO4	Molecular Weight	311.80
H.S.Code	2843.29000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	652 °C	Density [g/cm3]	5.45	Solubility in water [% weight]	Slightly soluble in water

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 98.5%
Chloride (Cl)	Max 0.003%
Iron (Fe)	Max 0.005%
Lead (Pb)	Max 0.002%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning Hazardous Statement: H315-H319-H335-H400 Precaution Statement: P261-P273-P305 + P351 + P338

SILVER SULPHATE 99% AR

Sulfuric acid disilver (I) salt

Product Code.	02333	Grade	AR
Purity	99.5%	CAS No.	10294-26-5
Molecular Formula	Ag2SO4	Molecular Weight	311.80
H.S.Code	2843.29000	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	652 °C	Density [g/cm3]	5.45	Solubility in water [% weight]	Slightly soluble in water

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99.5%
Insoluble matter and silver chloride	Max 0.02%
Substance not precipitated by HCl (as SO4)	Max 0.03%
Chloride (Cl)	Max 0.001%
Nitrate (NO3)	Max 0.001%
Calcium (Ca)	Max 0.005%
Copper (Cu)	Max 0.0005%
Iron (Fe)	Max 0.001%
Lead (Pb)	Max 0.001%
Potassium (K)	Max 0.01%
Sodium (Na)	Max 0.01%
Cobalt (Co)	Max 0.005%

Zinc (Zn)

Max 0.0005%

Safety Information and Hazard Symbols



Symbol: GHS07, GHS09

Signal Word: Warning

Hazardous Statement: H315-H319-H335-H400

Precaution Statement: P261-P273-P305 + P351 + P338

SODIUM ARSENATE 98% AR

Sodium arsenate dibasic heptahydrate

Product Code.	02351	Grade	
Purity	98%	CAS No.	10048-95-0
Molecular Formula	Na2HAsO4.7H2O	Molecular Weight	312.01
H.S.Code	2842.90100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	8.5 - 9.0 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	180 °C	Density [g/cm3]	1.87
Solubility in water [% weight]	61g/100ml water @ 150C				

Packaging

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Specification

Appearance	White crystalline powder
Assay (iodometric)	98.0 - 102.0%
Arsenic (III) oxide	Max 0.01%
Insoluble matter	Max 0.005%
Chloride (Cl)	Max 0.001%
Sulphate (SO4)	Max 0.01%

Nitrate (NO3)	Max 0.005%
Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.001%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 1685 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H301-H331-H350-H410 Precaution Statement: P201-P261-P273-P301 + P310-P311-P501

SODIUM ARSENITE 98% AR

Sodium (meta) arsenite

Product Code.	02352	Grade	AR
Purity	98%	CAS No.	7784-46-5
Molecular Formula	NaAsO2	Molecular Weight	129.91
H.S.Code	2842.90100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	35.5°C	Density [g/cm3]	1.87	Solubility in water [% weight]	Soluble in water

Packaging

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Specification

Appearance	White to off white powder
Assay (iodometric)	Min 98.0%
Chloride (Cl)	Max 0.01%
Sulphate (SO4)	Max 0.02%
Heavy metal (as Pb)	Max 0.015%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols


Symbol: GHS06, GHS08, GHS09 Signal Word: Danger UN No.: 2027 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H300 + H310-H331-H350-H410 Precaution Statement: P201-P261-P264-P273-P280-P301 + P310

SODIUM BROMIDE 99% AR

Product Code.	02375	Grade	AR
Purity	99%	CAS No.	7647-15-6
Molecular Formula	NaBr	Molecular Weight	102.89
H.S.Code	2827.51100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5.4 at 50 g/l at 20 °C	Melting point/ Freezing point [°C]	755°C	Boiling point [°C]	1390°C
Vapour pressure mm/Hg	1 mm Hg at 806 °C	Density [g/cm3]	3.21	Solubility in water [% weight]	Soluble in water

Specification

Appearance	White crystalline powder
Assay (argentometric)	Min 99%
pH (5% solution in water at 25°C)	5.0 to 8.8
Insoluble matter	Max 0.005%
Bromate (BrO3)	Max 0.001%
Chloride (Cl)	Max 0.2%
Sulphate (SO4)	Max 0.002%
Barium (Ba)	Max 0.002%
Iron (Fe)	Max 0.0005%
Calcium (Ca)	Max 0.002 %
Magnesium (Mg)	Max 0.001%
Potassium (K)	Max 0.1 %
Heavy metal (as Pb)	Max 0.0005%
Loss on drying (at 105°C)	Max 2.0%

SODIUM BROMIDE EXTRAPURE

Product Code.	02374	Grade	Extrapure
Purity	98%	CAS No.	7647-15-6
Molecular Formula	NaBr	Molecular Weight	102.89
H.S.Code	2827.51100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5.4 at 50 g/l at 20 °C	Melting point/ Freezing point [°C]	755°C	Boiling point [°C]	1390°C
Vapour pressure mm/Hg	1 mm Hg at 806 °C	Density [g/cm3]	3.21	Solubility in water [% weight]	Soluble in water

Packaging

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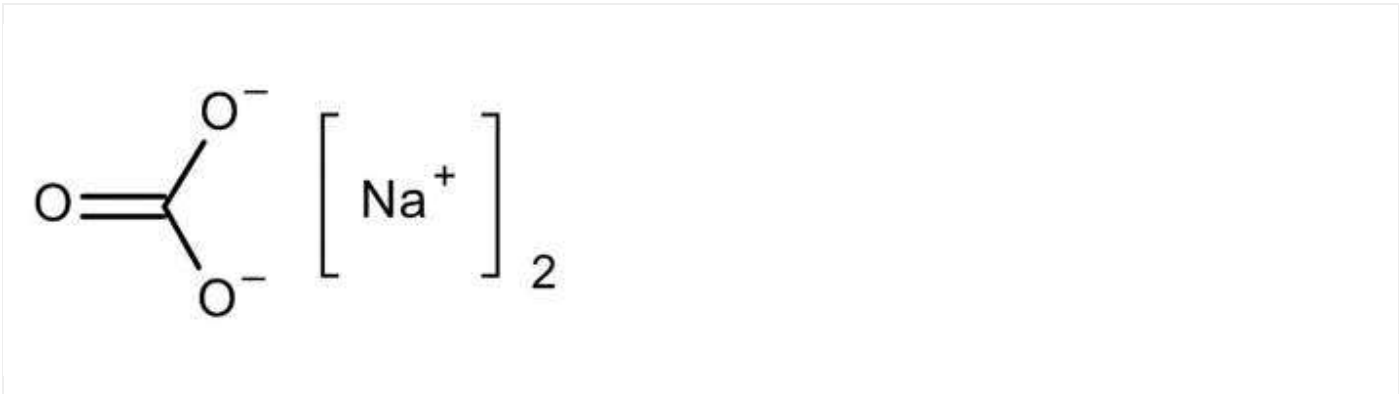
Specification

Appearance	White crystalline powder
Assay (argentometric)	98.0 - 100.5%
pH (5% solution in water at 25°C)	5.0 to 8.8
Bromate (BrO3)	Max 0.005%
Chloride (Cl)	Max 0.5%
Sulphate (SO4)	Max 0.01%
Heavy metal (as Pb)	Max 0.001%
Barium (Ba)	Max 0.005%
Iron (Fe)	Max 0.002%
Magnesium and alkali earth metals	Max 0.02%
Loss on drying (at 105°C)	Max 3%

SODIUM CARBONATE ANHYDROUS 99.5% AR

Confirms to BP, USP-NF Calcined soda, Carbonic acid disodium salt, Soda ash

Product Code.	02376	Grade	AR
Purity	99.5%	CAS No.	497-19-8
Molecular Formula	Na2CO3	Molecular Weight	105.99
H.S.Code	2836.20100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	12 at 106 g/l at 25 °C	Melting point/ Freezing point [°C]	851 °C	Boiling point [°C]	400°C
Density [g/cm3]	2.532	Solubility in water [% weight]	106 g/l at 20 °C - completely soluble		

Packaging

Specification

Appearance	White crystalline or granular powder
Assay (on anhydrous basis)	Min 99.5%
Identity	Passes test
Appearance of solution	Passes test
Insoluble matter in water	Max 0.01%
Moisture (at 300°C)	Max 0.5%

Chloride (Cl)	Max 0.002%
Phosphate and silicate (as SiO2)	Max 0.005%
Total sulphur (as SO4)	Max 0.005%
Heavy metal (as Pb)	Max 0.0005%
Arsenic (As)	Max 0.0005%
Calcium (Ca)	Max 0.03%
Iron (Fe)	Max 0.0005%
Potassium (K)	Max 0.01%
Magnesium (Mg)	Max 0.005%

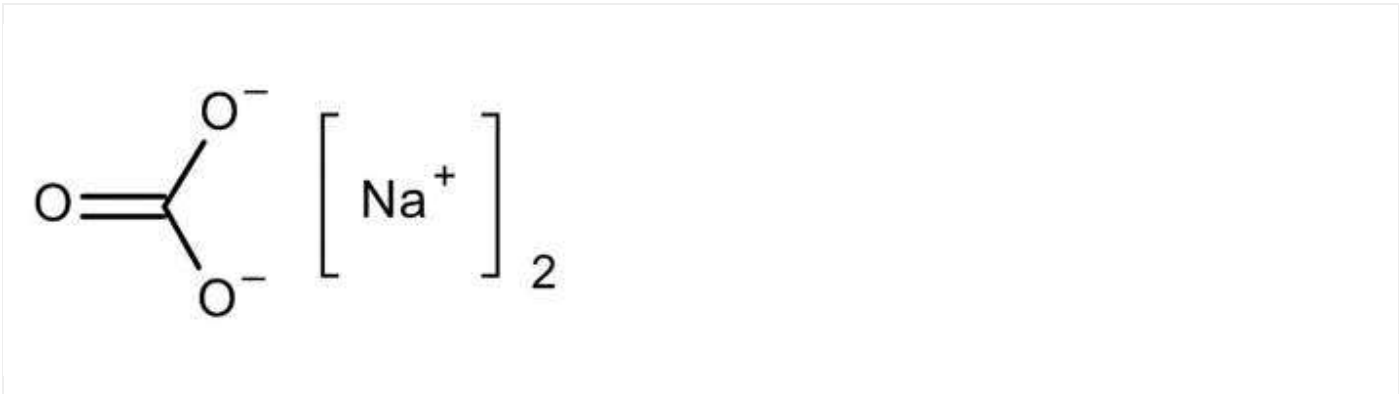
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

SODIUM CARBONATE ANHYDROUS 99.5% EXTRAPURE

Calcined soda, Carbonic acid disodium salt, Soda ash

Product Code.	02911	Grade	Extrapure
Purity	99.5%	CAS No.	497-19-8
Molecular Formula	Na2CO3	Molecular Weight	105.99
H.S.Code	2836.20100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	12 at 106 g/l at 25 °C	Melting point/ Freezing point [°C]	851 °C	Boiling point [°C]	400°C
Density [g/cm3]	2.532	Solubility in water [% weight]	106 g/l at 20 °C - completely soluble		

Packaging

Specification

Appearance	White crystalline or granular powder
Assay (on anhydrous basis)	Min 99.5%
Moisture (at 300°C)	Max 1.5%
Chloride (Cl)	Max 0.01%
Silicate (SiO2)	Max 0.02%
Sulphate (SO4)	Max 0.02%

Iron (Fe)	Max 0.005%
Heavy metal (as Pb)	Max 0.003%

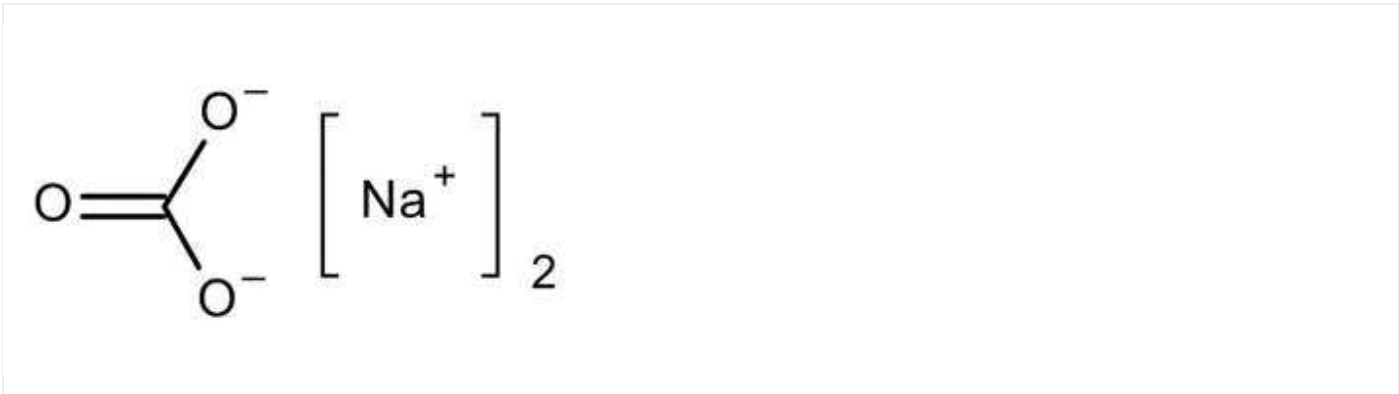
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

SODIUM CARBONATE MONOHYDRATE 99.5% AR

Soda ash; Washing soda; Soda crystals

Product Code.	02377	Grade	
Purity	99.5%	CAS No.	11/6/5968
Molecular Formula	Na2CO3.H2O	Molecular Weight	124.00
H.S.Code	2836.20100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	11.6	Boiling point [°C]	400°C	Density [g/cm3]	2.532
Solubility in water [% weight]	22 g/100mL (20°C)				

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99.9%
Substnace precipitated by NH4OH	Max 0.01%
Arsenic (As)	Max 0.0001%
Chloride (Cl)	Max 0.001%
Heavy metal (as Pb)	Max 0.0005%

Insoluble matter (10% in water)	Max 0.01%
Iron (Fe)	Max 0.0005%
Loss on dryig (at 150°C)	13 - 15%
Nitrogen compounds (as N)	Max 0.001%
Phosphate (PO4)	Max 0.0005%
Potassium (K)	Max 0.005%
Silica (SiO2)	Max 0.005%
Sulphur compounds (as SO4)	Max 0.004%
Calcium (Ca)	Max 0.03%
Magnesium (Mg)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H319 Precaution Statement: P305 + P351 + P338

SODIUM CHLORIDE 99.5% AR

Confirming to IP,BP Common salt, Halite, Rock salt, Saline, Table salt

Product Code.	02382	Grade	AR
Purity	99.5%	CAS No.	7647-14-5
Molecular Formula	NaCl	Molecular Weight	58.44
H.S.Code	2501.00900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6.7 - 7.3	Melting point/ Freezing point [°C]	801 °C	Boiling point [°C]	1413 °C
Vapour pressure mm/Hg	1.33 mm Hg at 865 °C	Density [g/cm3]	2.16	Solubility in water [% weight]	Soluble in water

Packaging

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Specification

Appearance	White crystalline powder
Assay (after ignition)	99.5-100.5%
Identity	Passes test
Appearance of solution	Passes test
Acidity or alkalinity	Passes test
pH (5 % solution)	5.0 - 8.0

Insoluble matter	Max 0.005%
Bromide (Br)	Max 0.005%
Iodide (I)	Max 0.001%
Ferrocyanide [(Fe(CN)6]4-	Max 0.0001%
Chlorate and nitrate (NO3)	Max 0.003%
Nitrite (NO2)	Passes test
Phosphate (PO4)	Max 0.0005%
Sulphate (SO4)	Max 0.001%
Total nitrogen (N)	Max 0.0005%
Heavy metals (by ICP-OES)	Max 0.0005%
Arsenic (As)	Max 0.00004%
Barium (Ba)	Max 0.001%(passes test)
Calcium (Ca)	Max 0.002%
Copper (Cu)	Max 0.0002%
Iron (Fe)	Max 0.0002%
Magnesium (Mg)	Max 0.001%
Magnesium and alkali earth metals	Max 0.01%
Potassium (K)	Max 0.005%
Loss on dryig (at 105°C; 2 hrs)	Max 0.5%

Safety Information and Hazard Symbols

SODIUM CHLORIDE 99.5% EXTRAPURE

Common salt; Halite; Rock sal sodium chlorict;Table salt

Product Code.	02381	Grade	Extrapure
Purity	99.5%	CAS No.	7647-14-5
Molecular Formula	NaCl	Molecular Weight	58.44
H.S.Code	2501.00900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	6.7 - 7.3	Melting point/ Freezing point [°C]	801 °C	Boiling point [°C]	1413 °C
Vapour pressure mm/Hg	1.33 mm Hg at 865 °C	Density [g/cm3]	2.16	Solubility in water [% weight]	Soluble in water

Specification

Appearance	White crystalline powder
Assay (after ignition)	Min. 99.5%
Loss on drying (at 105°C)	Max. 1.0%
Sulphate (SO4)	Max. 0.02%
Ammonia (NH3)	Max. 0.002%
Iron (Fe)	Max. 0.002%
Lead (Pb)	Max. 0.0005%
Potassium (K)	Max. 0.02%

SODIUM FLUORIDE 98% EXTRAPURE
Confirms to USP Florocid

Product Code.	02407	Grade	
Purity	98%	CAS No.	7681-49-4
Molecular Formula	NaF	Molecular Weight	41.99
H.S.Code	2826.19900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	7.4	Melting point/ Freezing point [°C]	993 °C	Vapour density	1.45
Density [g/cm3]	2.78	Solubility in water [% weight]	Soluble in water		

Specification

Appearance	White powder
Assay (on anhydrous basis)	98.0-102.0%
Identification	To comply tests as per USP
Acidity or alkalinity	To comply test as per USP
Loss on dryig (at 150°C; 4 hrs)	Max 1.0%
Fluorosilicate (SiF6)	To comply test as per USP
Chloride (Cl)	Max 0.012%
Heavy metal (as Pb)	Max 0.003%
Organic volatile impurities (By GC)	To meet the requirment

Safety Information and Hazard Symbols


Symbol: GHS06 Signal Word: Danger UN No.: 1690 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H301-H315-H319 Precaution Statement: P301 + P310-P305 + P351 + P338

SODIUM FLUORIDE 99% AR

Florocid

Product Code.	02408	Grade	
Purity	99%	CAS No.	7681-49-4
Molecular Formula	NaF	Molecular Weight	41.99
H.S.Code	2826.19900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
pH value	7.4	Melting point/ Freezing point [°C]	993 °C	Vapour density	1.45
Density [g/cm3]	2.78	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	A white powder
Assay	Min 99%
Insoluble matter	Max 0.01%
Loss on drying (at 105°C)	Max 0.2%
Acidity (as HF)	Max 0.05%
Free alkali	Max 0.04%
Chloride (Cl)	Max 0.005%
Hexafluorosilicate (SiF6)	Max 0.1%
Sulphate (SO4)	Max 0.01%
Sulphite (as SO3)	Max 0.005%
Heavy metal (as Pb)	Max 0.001%
Calcium (Ca)	Max 0.004%
Iron (Fe)	Max 0.002%

Lead (Pb)

Max 0.0005%

Safety Information and Hazard Symbols



Symbol: GHS06

Signal Word: Danger

UN No.: 1690

IMCO Class No.: 6.1

Packing Group: III

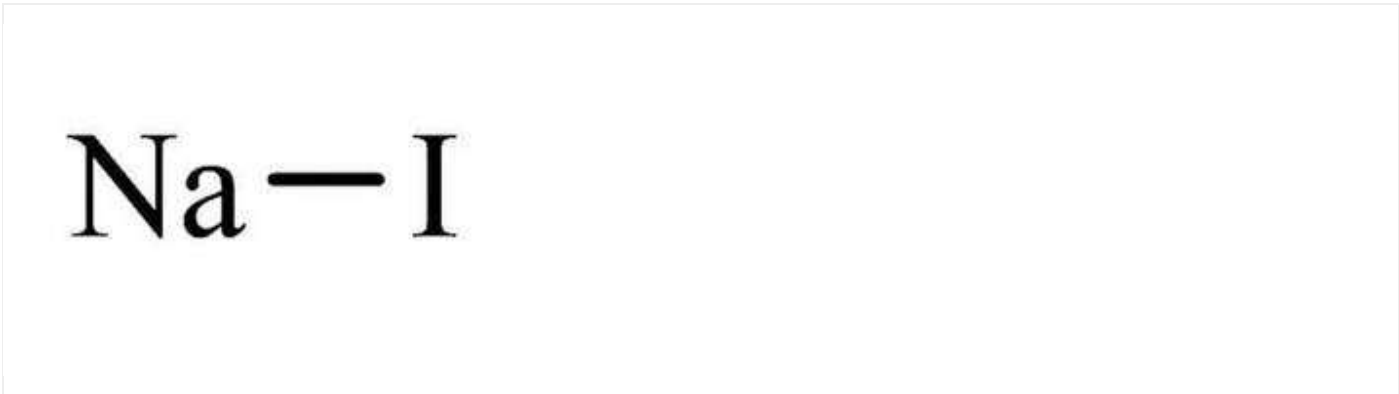
Hazardous Statement: H301-H315-H319

Precaution Statement: P301 + P310-P305 + P351 + P338

SODIUM IODIDE 99% EXTRAPURE

Confirming to BP,USP

Product Code.	02928	Grade	Extrapure
Purity	99%	CAS No.	7681-82-5
Molecular Formula	NaI	Molecular Weight	149.89
H.S.Code	2827.60200	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	8 - 9.5	Melting point/ Freezing point [°C]	651°C	Boiling point [°C]	1300°C
Vapour pressure mm/Hg	1 mm Hg @ 7670C	Density [g/cm3]	3.67	Solubility in water [% weight]	184 g/100 ml water @ 250C

Packaging

Specification

Appearance	A white crystalline powder
Assay (on dried basis)	99.0 - 100.5%
Identity	Passes test
Appearance of solution	Passes test
Impurities with alkaline reaction	Passes test
Sulphate (SO4)	Max 0.01%

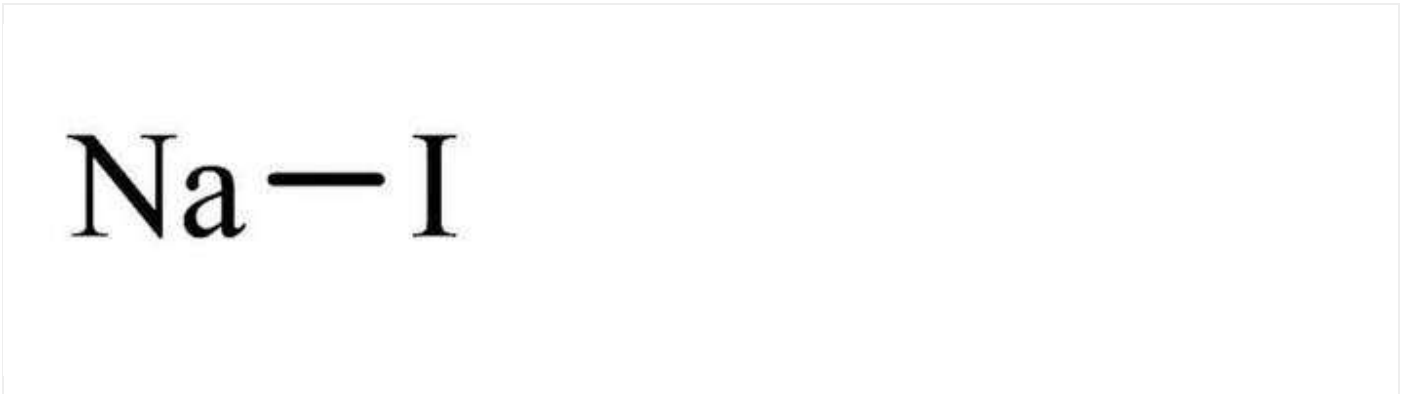
Iodate (IO3)	Passes test
Thiosulphate (S2O3)	Passes test
Thiosulphate and barium	Passes test
Total nitrogen (N)	Max 0.001%
Heavy metal (as Pb)	Max 0.001%
Iron (Fe)	Max 0.0005%
Potassium (K)	Max 0.05%
Loss on drying (at 105°C)	Max 3%
Water (H2O)	Max 2%
Bromide & chloride (Cl)	Max 0.03%

Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H315-H319-H400 Precaution Statement: P273-P305 + P351 + P338 Risk Statement: 36/38-50 Safety Statement: 26-61

SODIUM IODIDE 99.5% AR

Product Code.	02929	Grade	AR
Purity	99.5%	CAS No.	7681-82-5
Molecular Formula	NaI	Molecular Weight	149.89
H.S.Code	2827.60200	Shelf Life	36 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	8 - 9.5	Melting point/ Freezing point [°C]	651°C	Boiling point [°C]	1300°C
Vapour pressure mm/Hg	1 mm Hg @ 7670C	Density [g/cm3]	3.67	Solubility in water [% weight]	184 g/100 ml water @ 250C

Packaging

Specification

Appearance	A white crystalline powder
Assay (on dried basis)	Min 99.5%
Insoluble matter	Max 0.01%
pH (5% solution)	6.0 - 9.0
Chloride & bromide (as Cl)	Max 0.01%
Sulphate (SO4)	Max 0.005%

Iodate (IO3)	Max 0.0003%
Heavy metal (as Pb)	Max 0.0005%
Barium (Ba)	Max 0.002%
Iron (Fe)	Max 0.0005%
Calcium (Ca)	Max 0.002%
Magnesium (Mg)	Max 0.001
Potassium (K)	Max 0.01%
Phosphate (PO4)	Max 0.001%
Loss on drying (at 105°C)	Max 0.5%

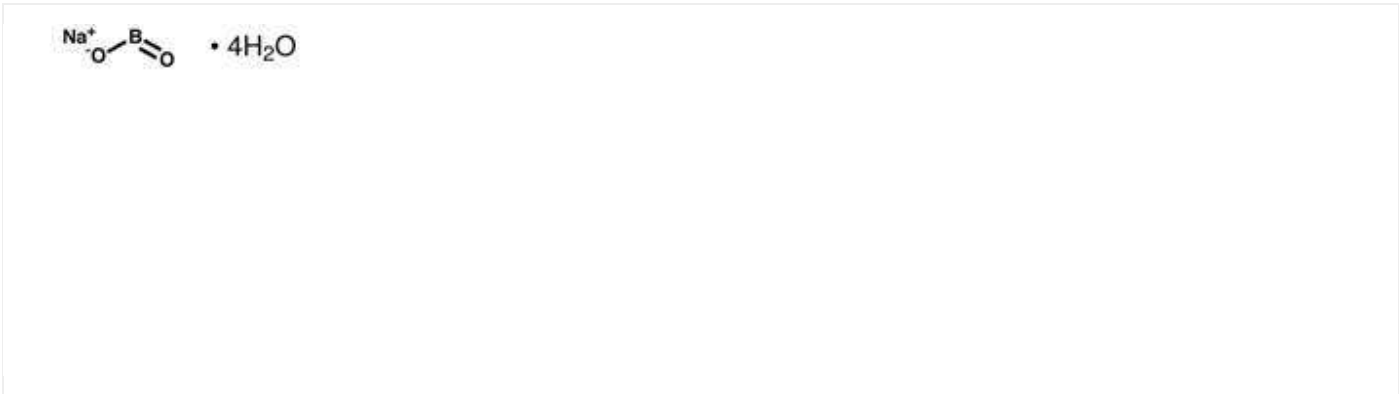
Safety Information and Hazard Symbols


Symbol: GHS07, GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H315-H319-H400 Precaution Statement: P273-P305 + P351 + P338 Risk Statement: 36/38-50 Safety Statement: 26-61

SODIUM METABORATE TETRAHYDRATE 98% EXTRAPURE

Boric acid sodium salt tetrahydrate;

Product Code.	02446	Grade	
Purity	98%	CAS No.	10555-76-7
Molecular Formula	NaBO2.4H2O	Molecular Weight	137.86
H.S.Code	2840.19000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	10	Melting point/ Freezing point [°C]	57°C	Density [g/cm3]	1.73
Solubility in water [% weight]	Soluble in water				

Specification

Appearance	White crystalline powder
Assay	Min 98%

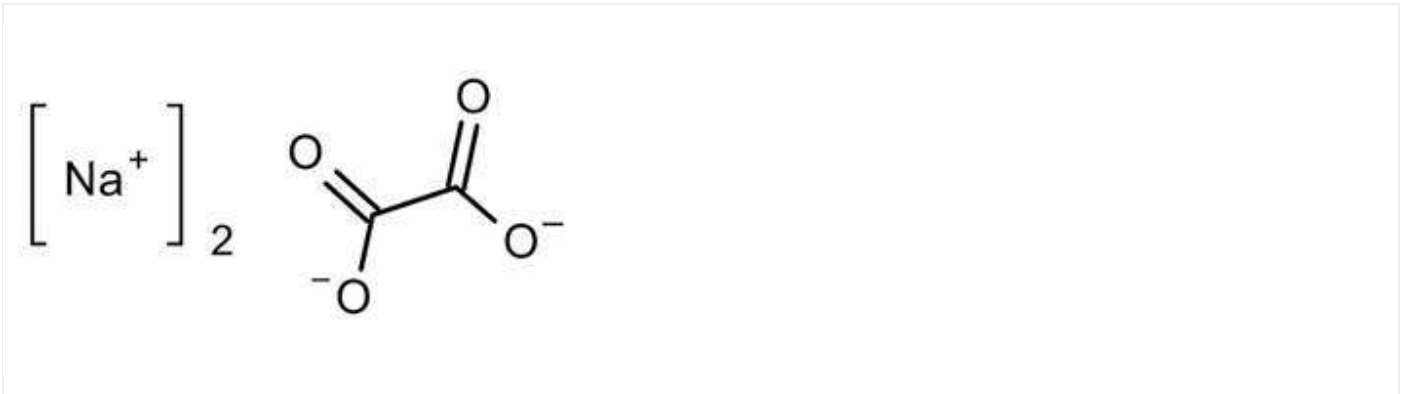
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

SODIUM OXALATE 99.5% EXTRAPURE

Ethanedioic acid sodium salt, Oxalic acid disodium salt

Product Code.	02471	Grade	Extrapure
Purity	99.5%	CAS No.	62-76-0
Molecular Formula	(COONa)2	Molecular Weight	134.00
H.S.Code	2917.11900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	7	Melting point/ Freezing point [°C]	250 °C	Density [g/cm3]	2.34
Solubility in water [% weight]	3.7g/100g water @ 200C				

Packaging

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Specification

Appearance	A white crystalline powder
Assay	Min 99.5%
Chloride (Cl)	Max 0.005%
Sulphate (SO4)	Max 0.03%
Iron (Fe)	Max 0.005%
Potassium (K)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

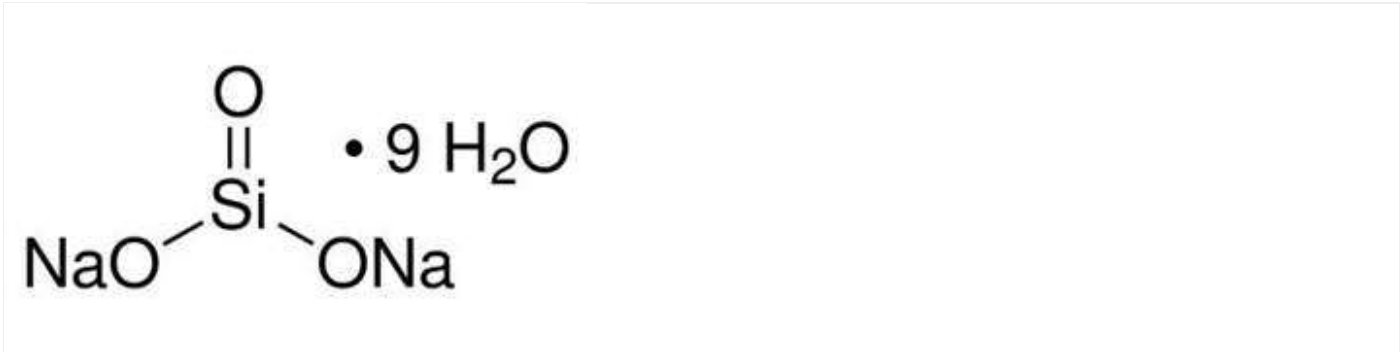
Hazardous Statement: H302-H312

Precaution Statement: P280

SODIUM SILICATE HYDRATED POWDER (META) EXTRAPURE

sodium silicate meta

Product Code.	02449	Grade	Extrapure
Purity		CAS No.	13517-24-3
Molecular Formula	Na2O3Si.9H2O	Molecular Weight	284.20
H.S.Code	2839.11000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Solubility in water [% weight]	Appreciable (> 10%)				

Specification

Appearance	Colorless or white crystals/powder
Chloride (Cl)	Max 0.05%
Sulphate (SO4)	Max 0.05%
Iron (Fe)	Max 0.005%
Heavy metal (as Pb)	Max 0.001%
Loss on ignition (at 700°C)	50 - 60%

Safety Information and Hazard Symbols


Symbol: GHS05, GHS07 Signal Word: Danger UN No.: 3253 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H314-H335 Precaution Statement: P261-P280-P305 + P351 + P338-P310

SODIUM SILICOFLUORIDE 98% EXTRAPURE

Sodium fluorosilicate; sodium hexafluorosilicate sodium fluosilicate; sodium silicofluoride

Product Code.	02505	Grade	
Purity	98%	CAS No.	16893-85-9
Molecular Formula	Na ₂ SiF ₆	Molecular Weight	188.50
H.S.Code	2826.90000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	3 - 4	Solubility in water [% weight]	Almost insoluble in water		

Specification

Appearance	White crystalline powder
Assay	Min 98%

Safety Information and Hazard Symbols

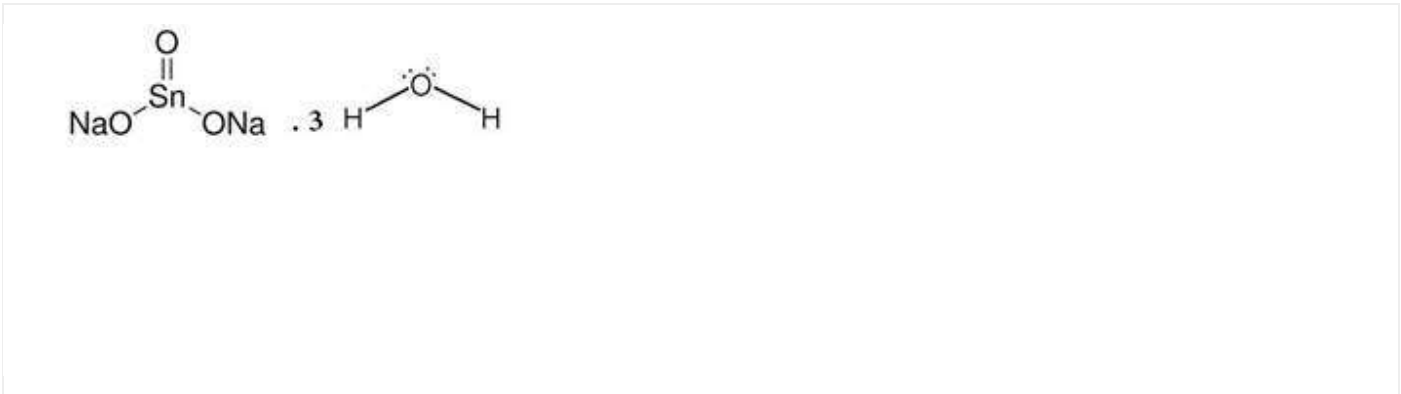


Symbol: GHS06
Signal Word: Danger
UN No.: 2674
IMCO Class No.: 6.1
Packing Group: III
Hazardous Statement: H301-H311-H331
Precaution Statement: P261-P280-P301 + P310-P311

SODIUM STANNATE EXTRAPURE

Sodium stannate(IV); disodium hexahydroxyltin

Product Code.	02506	Grade	
Purity		CAS No.	12209-98-2
Molecular Formula	Approx.Na2SnO3.3H2O	Molecular Weight	266.71
H.S.Code	2841.90000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	11.5	Melting point/ Freezing point [°C]	140°C	Solubility in water [% weight]	61.3g/100g water @ 200C

Packaging

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Specification

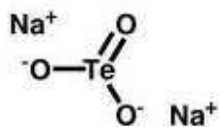
Appearance	White to off white powder
Assay (as SnO2)	42.0 - 45.0%

Safety Information and Hazard Symbols

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SODIUM TELLURITE 98% EXTRAPURE

Product Code.	02522	Grade	
Purity	98%	CAS No.	10102-20-2
Molecular Formula	Na2TeO3	Molecular Weight	221.58
H.S.Code	2842.90900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
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Packaging

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Specification

Appearance	A white fine powder
Assay (oxidimetric)	Min 98%

Safety Information and Hazard Symbols

Symbol: GHS06 Signal Word: Danger UN No.: 3288 IMCO Class No.: 6.1 Packing Group: II Hazardous Statement: H301-H311-H331 Precaution Statement: P261-P280-P301 + P310-P311

STANNIC CHLORIDE PENTAHYDRATE 98% EXTRAPURE

Tin(IV) chloride pentahydrate

Product Code.	02551	Grade	
Purity	98%	CAS No.	10026-06-9
Molecular Formula	SnCl4.5H2O	Molecular Weight	350.58
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Off white	Odour	Slight odor of hydrochloric acid
Melting point/ Freezing point [°C]	56°C	Vapour pressure [20°C]	30 mm Hg @ 20°C	Vapour pressure mm/Hg	30 mm Hg @ 200C
Vapour density	9	Density [g/cm3]	2.04	Solubility in water [% weight]	Soluble in water

Packaging



Specification

Appearance	Off white fused lumps
Assay	Min 98%

Arsenic (As)	Max 0.001%
Insoluble matter	Max 0.01%
Iron (Fe)	Max 0.0005%
Substance not precipitated by H ₂ S (as SO ₄)	Max 0.05%
Sulphate (SO ₄)	Max 0.001%

Safety Information and Hazard Symbols



Symbol: GHS05

Signal Word: Danger

UN No.: 2440

IMCO Class No.: 8

Packing Group: III

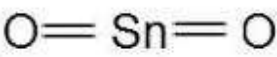
Hazardous Statement: H314

Precaution Statement: P280-P305 + P351 + P338-P310

STANNIC OXIDE 99% EXTRAPURE

Tin (IV) oxide

Product Code.	02552	Grade	
Purity	99%	CAS No.	18282-10-5
Molecular Formula	SnO2	Molecular Weight	150.69
H.S.Code	2825.90100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Slightly greyish white	Odour	Odorless
Melting point/ Freezing point [°C]	1630 °C	Boiling point [°C]	1800 - 1900 °C	Initial boiling point [°C]	1800°C
Final boiling point [°C]	1900 °C	Density [g/cm3]	6.95	Solubility in water [% weight]	Insoluble in water

Packaging

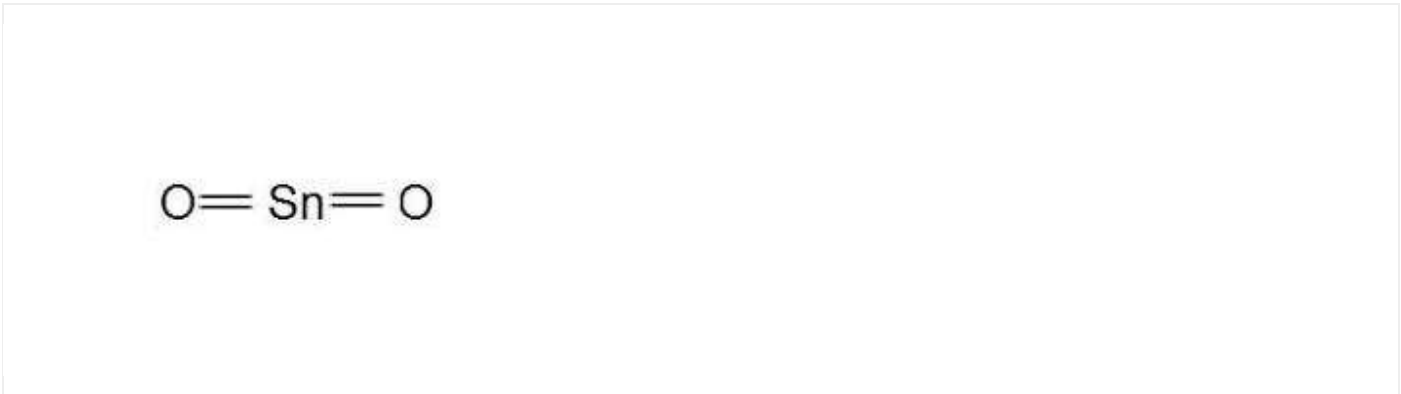
Specification

Appearance	Slightly grayish white powder
Assay	Min 99%
Substance soluble in acid	Max 0.4%
Acid soluble lead (Pb)	Max 0.05%
Acid soluble iron (Fe)	Max 0.02%
Loss on ignition (at 900°C)	Max 0.2%

STANNIC OXIDE 99.8% AR

Tin(IV) oxide

Product Code.	02553	Grade	
Purity	99.8%	CAS No.	18282-10-5
Molecular Formula	SnO2	Molecular Weight	150.69
H.S.Code	2825.90100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Slightly greyish white	Odour	Odorless
Melting point/ Freezing point [°C]	1630 °C	Boiling point [°C]	1800 - 1900 °C	Initial boiling point [°C]	1800°C
Final boiling point [°C]	1900 °C	Density [g/cm3]	6.95	Solubility in water [% weight]	Insoluble in water

Packaging

Specification

Appearance	Slightly grayish white powder
Assay (as SnO2)	Min 99.8%
Lead (Pb)	Max 0.03%
Antimony (Sb)	Max 0.03%
Iron (Fe)	Max 0.02%
Bismuth (Bi)	Max 0.02%

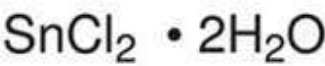
Copper (Cu)	Max 0.02%
Arsenic (As)	Max 0.02%
Cobalt (Co)	Max 0.001%
Nickel (Ni)	Max 0.001%
Silver (Ag)	Max 0.001%
Cadmium (Cd)	Max 0.001%
Magnesium (Mg)	Max 0.001%
Manganese (Mn)	Max 0.001%
Zinc (Zn)	Max 0.001%

Safety Information and Hazard Symbols

STANNOUS CHLORIDE DIHYDRATE 97% EXTRAPURE

Tin (II) chloride dihydrate

Product Code.	02554	Grade	Extrapure
Purity	97%	CAS No.	10025-69-1
Molecular Formula	SnCl2.2H2O	Molecular Weight	225.63
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Slight odor of hydrochloric acid
Melting point/ Freezing point [°C]	37 - 38 °C	Boiling point [°C]	652 °C	Density [g/cm3]	2.71
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Colorless crystals or white crystalline powder
Assay	Min 97.0%
Sulphate (SO4)	Max 0.01%
Arsenic (As)	Max 0.0002%
Iron (Fe)	Max 0.01%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07

Signal Word: Danger

UN No.: 3260

IMCO Class No.: 8

Packing Group: III

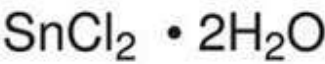
Hazardous Statement: H302-H314

Precaution Statement: P280-P305 + P351 + P338-P310

STANNOUS CHLORIDE DIHYDRATE 98% AR

Tin (II) Chloride

Product Code.	02555	Grade	AR
Purity	98%	CAS No.	10025-69-1
Molecular Formula	SnCl2.2H2O	Molecular Weight	225.63
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Slight odor of hydrochloric acid
Melting point/ Freezing point [°C]	37 - 38 °C	Boiling point [°C]	652 °C	Density [g/cm3]	2.71
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	Colorless crystals or white crystalline powder
Assay (as as SnCl2.2H2O; iodometric)	98.0 - 103.0%
Solubility HCl (5 g/10mL; 50% HCl)	Clear
Sulphate (SO4)	Approx 0.003% (Passes ACS test)
Calcium (Ca)	Max 0.005%

Iron (Fe)	Max 0.003%
Lead (Pb)	Max 0.01%
Potassium (K)	Max 0.005%
Sodium (Na)	Max 0.01%

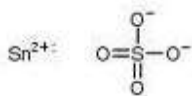
Safety Information and Hazard Symbols


Symbol: GHS05, GHS07 Signal Word: Danger UN No.: 3260 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H314 Precaution Statement: P280-P305 + P351 + P338-P310

STANNOUS SULPHATE AR

Tin(II) sulfate

Product Code.	02557	Grade	
Purity		CAS No.	7488-55-3
Molecular Formula	SnSO4	Molecular Weight	214.75
H.S.Code	2833.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	2	Melting point/ Freezing point [°C]	360°C	Density [g/cm3]	1.35
Solubility in water [% weight]	330 g/L (20°C)				

Packaging

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Specification

Appearance	White crystalline powder
Assay (as Sn)	Min 50%
Antimony (Sb)	Max 0.01%
Iron (Fe)	Max 0.01%
Lead (Pb)	Max 0.01%
Mercury (Hg)	Max 0.0005%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

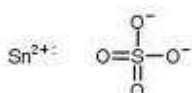
Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

STANNOUS SULPHATE EXTRAPURE

Tin(II) sulphate

Product Code.	02556	Grade	
Purity		CAS No.	7488-55-3
Molecular Formula	SnSO4	Molecular Weight	214.75
H.S.Code	2833.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	2	Melting point/ Freezing point [°C]	360°C	Density [g/cm3]	1.35
Solubility in water [% weight]	330 g/L (20°C)				

Specification

Appearance	White crystalline powder
Assay (as Sn)	Min 50%
Insoluble matter	Max 0.5%
Arsenic (As)	Max 0.01%
Antimony (Sb)	Max 0.1%

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

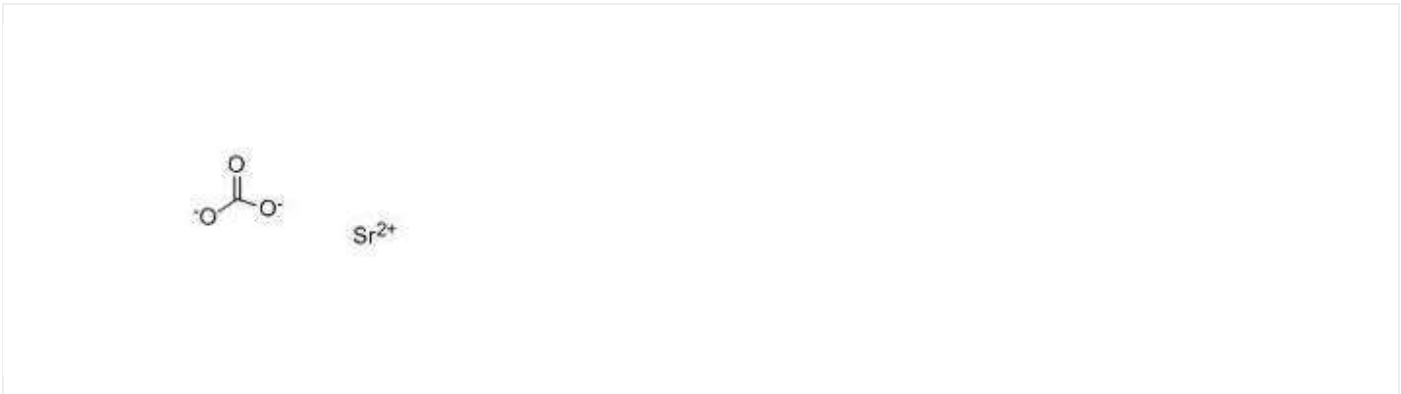
Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

STRONTIUM CARBONATE HEXAHYDRATE 98% EXTRAPURE

Precipitated by ammonia. Strontianite

Product Code.	02565	Grade	Extrapure
Purity	98%	CAS No.	1633-05-2
Molecular Formula	SrCO3	Molecular Weight	147.63
H.S.Code	2836.92000	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Off white powder	Odour	Odorless
Melting point/ Freezing point [°C]	1100°C	Density [g/cm3]	3.7	Solubility in water [% weight]	Slightly soluble in water

Specification

Appearance	Off white powder
Assay (complexometric)	Min 98.0%
Chloride (Cl)	Max 0.02%
Phosphate (PO4)	Max 0.005%
Copper (Cu)	Max 0.002%
Iron (Fe)	Max 0.002%
Nickel (Ni)	Max 0.002%
Lead (Pb)	Max 0.002%

STRONTIUM CHLORIDE 98% EXTRAPURE

Strontium(II) chloride hexahydrate

Product Code.	02566	Grade	Extrapure
Purity	98%	CAS No.	10025-70-4
Molecular Formula	SrCl2.6H2O	Molecular Weight	266.62
H.S.Code	2827.39300	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5 - 7 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	115 °C	Density [g/cm3]	1.96
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	White crystalline powder
Assay (complexometric)	Min 98.0%
Insoluble matter in water	Max 0.01%
Sulphate (SO4)	Max 0.005%
pH (5% solution in water)	5.0 - 7.0
Heavy metal (as Pb)	Max 0.002%

Barium (Ba)	Max 0.05%
Calcium (Ca)	Max 0.1%
Iron (Fe)	Max 0.002%

Safety Information and Hazard Symbols


Symbol: GHS05 Signal Word: Danger Hazardous Statement: H318 Precaution Statement: P280-P305 + P351 + P338

STRONTIUM CHLORIDE HEXAHYDRATE 99% AR

Strontium(II) chloride hexahydrate

Product Code.	02567	Grade	
Purity	99%	CAS No.	10025-70-4
Molecular Formula	SrCl2.6H2O	Molecular Weight	266.62
H.S.Code	2827.39300	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	5 - 7 at 50 g/l at 25 °C	Melting point/ Freezing point [°C]	115 °C	Density [g/cm3]	1.96
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	White crystalline powder
Assay (complexometric)	99 - 103%
Insoluble matter	Max 0.005%
pH (5% solution in water)	5.0 - 7.0
Sulphate (SO4)	Max 0.001%
Calcium (Ca)	Max 0.05%

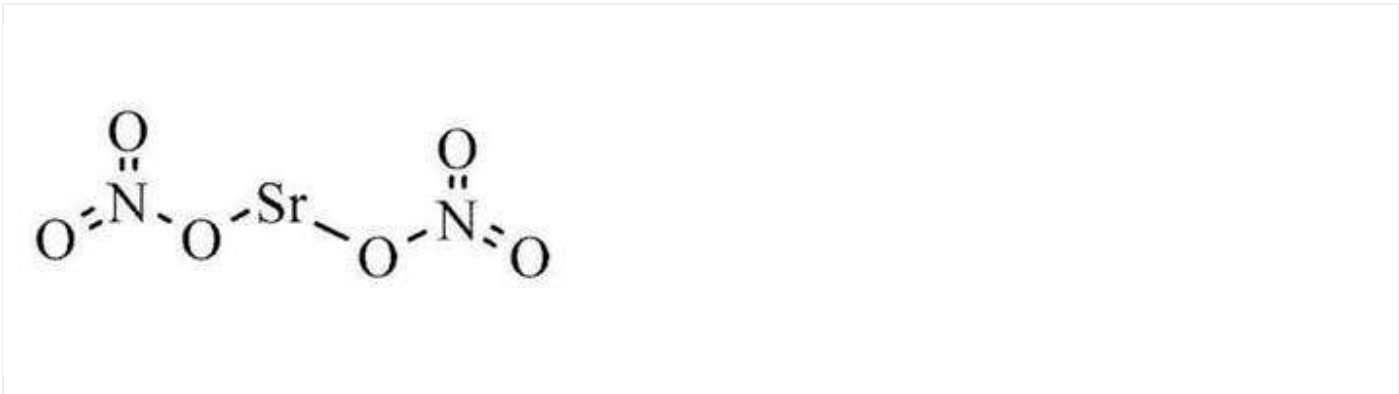
Heavy metals (by ICP-OES)	Max 0.0005%
Iron (Fe)	Max 0.0005%
Barium (Ba)	Max 0.05%
Magnesium (Mg)	Max 0.0002%

Safety Information and Hazard Symbols


Symbol: GHS05 Signal Word: Danger Hazardous Statement: H318 Precaution Statement: P280-P305 + P351 + P338

STRONTIUM NITRATE ANHYDROUS 99% AR

Product Code.	02570	Grade	AR
Purity	99%	CAS No.	10042-76-9
Molecular Formula	Sr(NO3)2	Molecular Weight	211.63
H.S.Code	2834.29100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White	Odour	Odorless
pH value	5.0 -7.0	Melting point/ Freezing point [°C]	570	Density [g/cm3]	2.98
Solubility in water [% weight]	71g/100ml				

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min. 99.0%
Insoluble matter	Max. 0.01%
Loss on drying (at 105°C)	Max. 0.1%
pH (5% solution in water; 25°C)	5.0 - 7.0
Chloride (Cl)	Max. 0.002%
Sulphate (SO4)	Max. 0.005%

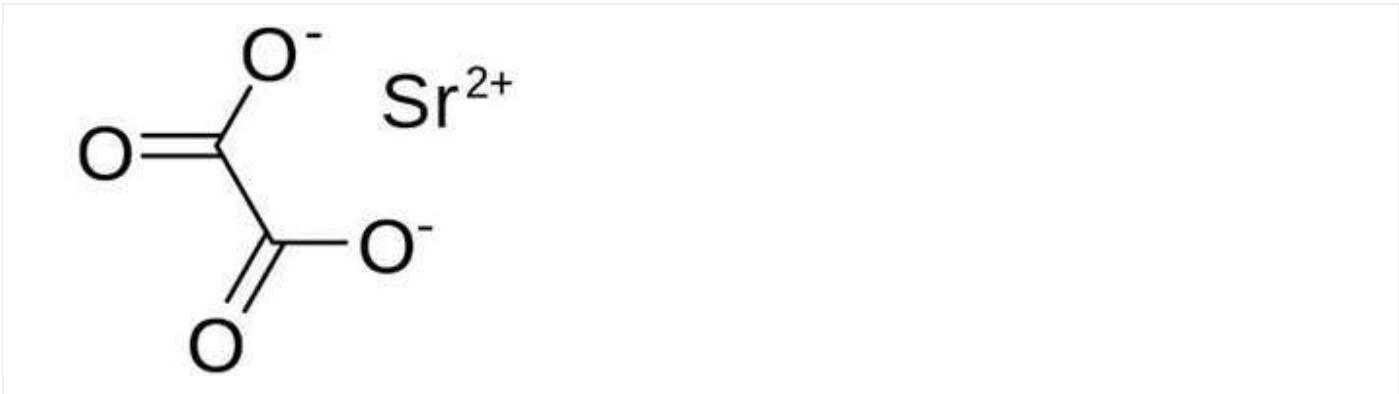
Barium (Ba)	Max. 0.05%
Calcium (Ca)	Max. 0.05%
Magnesium (Mg)	Max. 0.1%
Sodium (Na)	Max. 0.1%
Heavy metal (as Pb)	Max. 0.0005%
Iron (Fe)	Max. 0.0005%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Warning UN No.: 1507 IMCO Class No.: 5.1 Packing Group: III Hazardous Statement: H272-H302-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338 Risk Statement: 8-22-36/37/38 Safety Statement: 26

STRONTIUM OXALATE 97% EXTRAPURE

Product Code.	02571	Grade	
Purity	97%	CAS No.	814-95-9
Molecular Formula	SrC2O4	Molecular Weight	175.60
H.S.Code	2917.11300	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Solubility in water [% weight]	Insoluble in water				

Packaging

Specification

Appearance	White powder
Assay	Min 97%

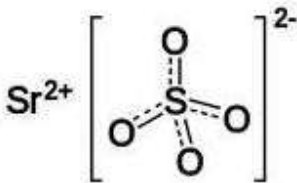
Safety Information and Hazard Symbols

Symbol: GHS07
Signal Word: Warning
Hazardous Statement: H302-H312
Precaution Statement: P280

STRONTIUM SULPHATE ANHYDROUS 98% EXTRAPURE

Celestite

Product Code.	02572	Grade	
Purity	98%	CAS No.	2/6/7759
Molecular Formula	SrSO4	Molecular Weight	183.68
H.S.Code	2833.29500	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1605°C	Density [g/cm3]	3.96	Solubility in water [% weight]	Slightly soluble in water

Packaging

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Specification

Appearance	White powder or crystals
Assay	Min 98%
Loss on ignition (20 min.; 400°C)	Max 1.5%
Akalis (as SO4)	Max 1.0%
Chloride (Cl)	Max 0.005%
Iron (Fe)	Max 0.003%

TITANIUM DIOXIDE 98% EXTRAPURE

Confirms to IP/BP Titanium (IV) oxide; Titania

Product Code.	02713	Grade	Extrapure
Purity	98%	CAS No.	13463-67-7
Molecular Formula	TiO2	Molecular Weight	79.90
H.S.Code	2823.00100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1825 °C	Boiling point [°C]	2750°C	Density [g/cm3]	3.9
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	White or almost white powder
Assay	98.0-100.5%
Solubility	To comply BP test
Identification	To comply IP/BP test
Appearance of solution	To comply IP/BP test
Acidity or alkalinity	To comply IP/BP test
Water soluble compounds	Max 0.5%

Arsenic (As)	Max 0.0005%
Antimony (Sb)	Max 0.01%
Barium (Ba)	To comply IP/BP test
Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.02%

Safety Information and Hazard Symbols


Symbol: GHS08 Signal Word: Warning Hazardous Statement: H351 Precaution Statement: P281

TITANIUM DIOXIDE 99% AR
Titanium (IV) oxide; Titania

Product Code.	02714	Grade	AR
Purity	99.0%	CAS No.	13463-67-7
Molecular Formula	TiO2	Molecular Weight	79.90
H.S.Code	2823.00100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1825 °C	Boiling point [°C]	2750°C	Density [g/cm3]	3.9
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	A fine white powder
Assay	99.0-100.5%
Heavy metal (as Pb)	Max 0.002%
Iron (Fe)	Max 0.02%
Arsenic (As)	Max 0.0003%
Antimony (Sb)	Max 0.005%
Acid soluble matter (HCl 0.5 mol/L)	Max 0.5%

Water soluble matter	Max 0.5%
Loss on drying (at 105°C)	Max 0.5%
Loss on ignition (at 1000°C)	Max 0.5%

Safety Information and Hazard Symbols


Symbol: GHS08 Signal Word: Warning Hazardous Statement: H351 Precaution Statement: P281

TUNGSTEN (VI) OXIDE EXTRAPURE

Tungsten trioxide, Tungstic anhydride

Product Code.	02797	Grade	
Purity		CAS No.	1314-35-8
Molecular Formula	WO3	Molecular Weight	231.85
H.S.Code	2825.90900	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Light yellow	Odour	Odorless
pH value	6.1 at 100 g/l	Melting point/ Freezing point [°C]	1470 - 1475 °C	Density [g/cm3]	7.16

Packaging

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Specification

Appearance	Greenish yellow crystalline powder
Chloride (Cl)	Max 0.05%
Sulphate (SO4)	Max 0.01%
Lead (Pb)	Max 0.001%
Calcium (Ca)	Max 0.03%
Iron (Fe)	Max 0.002%
Loss on ignition (at 700°C)	Max 1%

Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H302-H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

VANADIUM (V) OXIDE, 99.6+%

Product Code.	2822A	Grade	
Purity	99.6+%	CAS No.	1314-62-1
Molecular Formula	O5V2	Molecular Weight	181.88
H.S.Code	2825.30100	Shelf Life	60 Months

Physical Properties

Physical state at 20 °C	Solid	Colour	Brown Crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	690 °C	Boiling point [°C]	1750°C	Vapour density	6.3
Density [g/cm3]	Density [g/cm3]	Solubility in water [% weight]	Slight (0.1-1%)		

Specification

Appearance (Color)	Yellow to orange-brown
Appearance (Form)	Powder
Assay	>=99.60 %
Sodium (Na)	=<200 ppm
Potassium (K)	=<200 ppm
Iron (Fe)	=<300 ppm
Chromium (Cr)	=<100 ppm
Silicon (Si)	=<200 ppm

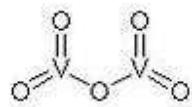
Safety Information and Hazard Symbols


Symbol: GHS06, GHS07, GHS08, GHS09 Signal Word: Danger UN No.: 2862 IMCO Class No.: 6.1 Packing Group: III Hazardous Statement: H302-H332-H335-H341-H361d-H372-H411 Precaution Statement: P261-P273-P281-P314

VANADIUM PENTOXIDE 98% EXTRAPURE

Divanadium pentaoxide, Divanadium pentoxide, Pentaoxodivanadium, Vandia ; [vanadium (v) oxide]

Product Code.	02821	Grade	
Purity	98%	CAS No.	1314-62-1
Molecular Formula	V2O5	Molecular Weight	181.88
H.S.Code	2825.30100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Brown Crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	690 °C	Boiling point [°C]	1750°C	Vapour density	6.3
Density [g/cm3]	3.36	Solubility in water [% weight]	Slight (0.1-1%)		

Packaging

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Specification

Appearance	A brown crystalline powder
Assay	Min 98%
Chloride (Cl)	Max 0.1%
Phosphate (PO4)	Max 0.1%
Sulphate (SO4)	Max 0.1%
Total nitrogen (N)	Max 0.1%
Iron (Fe)	Max 0.1%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS07, GHS08, GHS09

Signal Word: Danger

UN No.: 2862

IMCO Class No.: 6.1

Packing Group: III

Hazardous Statement: H302-H332-H335-H341-H361d-H372-H411

Precaution Statement: P261-P273-P281-P314

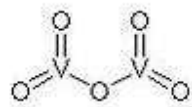
Risk Statement: 63-20/22-37-48/23-51/53-68

Safety Statement: 36/37-38-45-61

VANADIUM PENTOXIDE 99% AR

Divanadium pentaoxide, Divanadium pentoxide, Pentaoxodivanadium, Vandia ;[vanadium (v) oxide]

Product Code.	02822	Grade	
Purity	99%	CAS No.	1314-62-1
Molecular Formula	V2O5	Molecular Weight	181.88
H.S.Code	2825.30100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Brown Crystalline	Odour	Odorless
Melting point/ Freezing point [°C]	690 °C	Boiling point [°C]	1750°C	Vapour density	6.3
Density [g/cm3]	3.36	Solubility in water [% weight]	Slight (0.1-1%)		

Packaging

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Specification

Appearance	A brown crystalline powder
Assay	Min 99.0%
Iron (Fe)	Max 0.03%
Potassium (K)	Max 0.05%
Sodium (Na)	Max 0.02%

Safety Information and Hazard Symbols



Symbol: GHS06, GHS07, GHS08, GHS09

Signal Word: Danger

UN No.: 2862

IMCO Class No.: 6.1

Packing Group: III

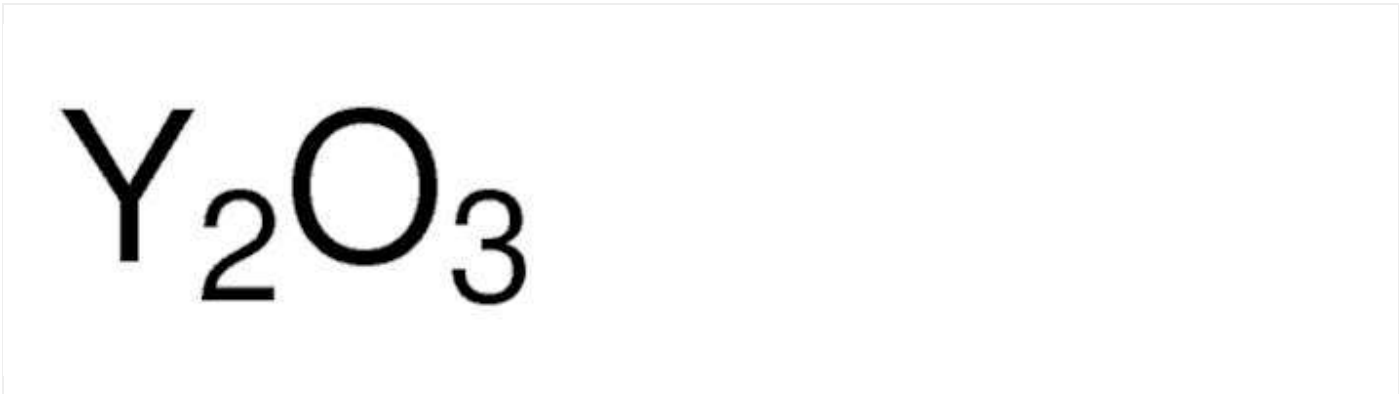
Hazardous Statement: H302-H332-H335-H341-H361d-H372-H411

Precaution Statement: P261-P273-P281-P314

YTTRIUM OXIDE 99.9% AR

Yttrium(III) oxide; Ytria, diyttrium trioxide, yttrium sesquioxide

Product Code.	02862	Grade	
Purity	99.9%	CAS No.	1314-36-9
Molecular Formula	Y2O3	Molecular Weight	225.81
H.S.Code	2846.90900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	2410 °C	Boiling point [°C]	4300 °C	Density [g/cm3]	5.01
Solubility in water [% weight]	Insoluble in water				

Specification

Appearance	White powder
Assay	Min 99.9%

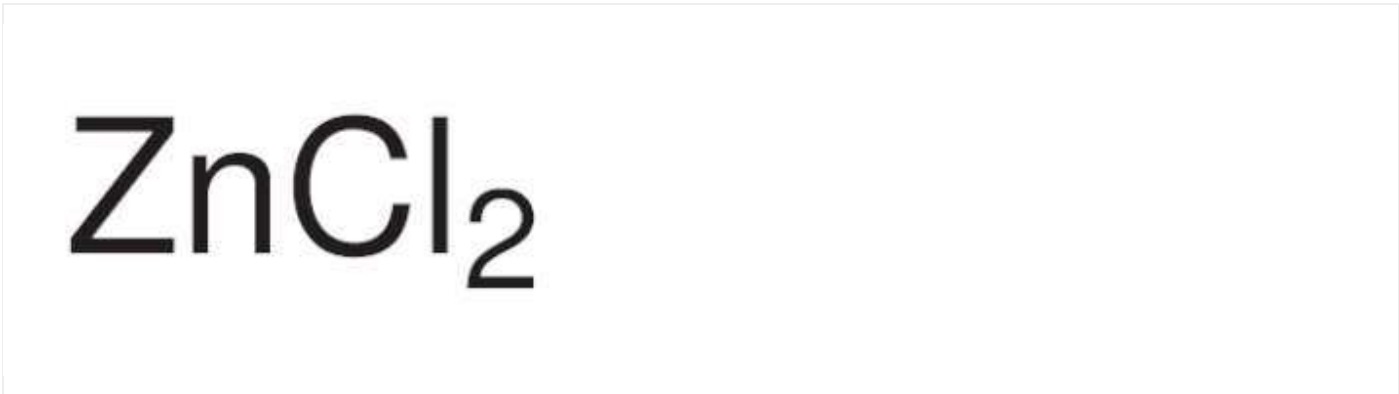
Safety Information and Hazard Symbols


Symbol: GHS07 Signal Word: Warning Hazardous Statement: H315-H319-H335 Precaution Statement: P261-P305 + P351 + P338

ZINC CHLORIDE DRY 97% EXTRAPURE

Zinc(II) chloride; Zinc dichloride; Butter of zinc ;(purified powder)

Product Code.	02874	Grade	Extra Pure
Purity	97%	CAS No.	7646-85-7
Molecular Formula	ZnCl2	Molecular Weight	136.29
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	4 Aqueous solution	Melting point/ Freezing point [°C]	293 °C	Boiling point [°C]	732 °C
Density [g/cm3]	2.91	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	White crystalline hygroscopic powder
Assay (ex total Zn)	Min 97%
Zinc oxide (Zno)	Max 4%
Iron (Fe)	Max 0.005%
Lead (Pb)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07, GHS09

Signal Word: Danger

UN No.: 2331

IMCO Class No.: 8

Packing Group: III

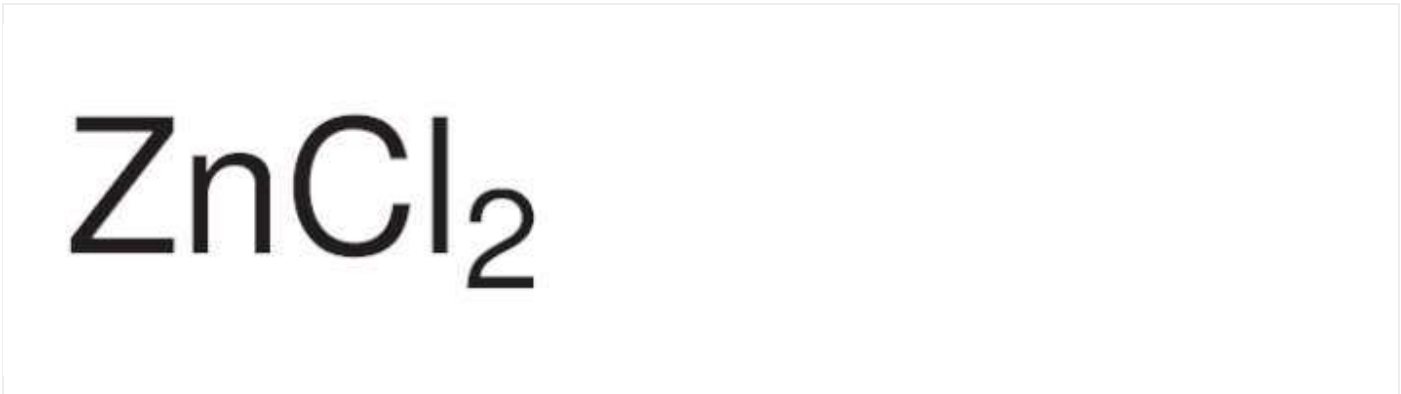
Hazardous Statement: H302-H314-H410

Precaution Statement: P273-P280-P305 + P351 + P338-P310-P501

ZINC CHLORIDE DRY 98% AR

Zinc(II) chloride; Zinc dichloride; Butter of zinc

Product Code.	02875	Grade	
Purity	98%	CAS No.	7646-85-7
Molecular Formula	ZnCl2	Molecular Weight	136.28
H.S.Code	2827.39900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	4 Aqueous solution	Melting point/ Freezing point [°C]	293 °C	Boiling point [°C]	732 °C
Density [g/cm3]	2.91	Solubility in water [% weight]	Soluble in water		

Packaging

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Specification

Appearance	White crystalline hygroscopic powder
Assay	Min 98%
Insoluble matter	Max 0.005%
Oxide chloride (as ZnO)	Passes test
Sulphate (SO4)	Max 0.01%
Nitrate (NO3)	Max 0.003%

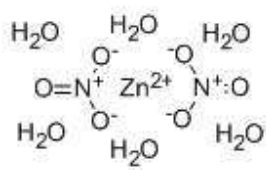
Lead (Pb)	Max 0.005%
Iron (Fe)	Max 0.001%
Magnesium (Mg)	Max 0.01%
Calcium (Ca)	Max 0.06%
Sodium (Na)	Max 0.05%
Potassium (K)	Max 0.02%
Ammonium (NH ₄)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS05, GHS07, GHS09 Signal Word: Danger UN No.: 2331 IMCO Class No.: 8 Packing Group: III Hazardous Statement: H302-H314-H410 Precaution Statement: P273-P280-P305 + P351 + P338-P310-P501

ZINC NITRATE HEXAHYDRATE 96% EXTRAPURE

Product Code.	02879	Grade	Extrapure
Purity	96%	CAS No.	10196-18-6
Molecular Formula	Zn(NO3)2.6H2O	Molecular Weight	297.48
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Slight nitric acid odor
Melting point/ Freezing point [°C]	36 °C	Density [g/cm3]	2.07	Solubility in water [% weight]	200 g/100 g water
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2				

Packaging

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Specification

Appearance	Colorless crystals
Assay (ex Zn)	96 - 103%
pH (10% solution in water)	3 - 6
Chloride (Cl)	Max 0.005%

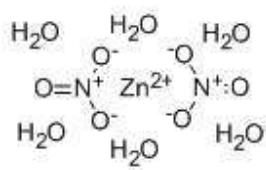
Sulphate (SO4)	Max 0.01%
Iron (Fe)	Max 0.005%

Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1514 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H302-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

ZINC NITRATE HEXAHYDRATE 98% AR

Product Code.	02880	Grade	AR
Purity	98%	CAS No.	10196-18-6
Molecular Formula	N2O6Zn.6H2O	Molecular Weight	297.48
H.S.Code	2834.29900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	Colorless crystals	Odour	Slight nitric acid odor
Melting point/ Freezing point [°C]	36 °C	Density [g/cm3]	2.07	Solubility in water [% weight]	200 g/100 g water
Oxidising properties	The substance or mixture is classified as oxidizing with the subcategory 2				

Packaging

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Specification

Appearance	Colorless crystals
Assay	Min 98%
Insoluble matter in water	Max 0.005%
Chloride (Cl)	Max 0.001%

Sulphate (SO4)	Max 0.005%
Cadmium (Cd)	Max 0.0005%
Calcium (Ca)	Max 0.001%
Copper (Cu)	Max 0.0005%
Lead (Pb)	Max 0.001%
Magnesium (Mg)	Max 0.001%
Nickel (Ni)	Max 0.0005%
Potassium (K)	Max 0.001%
Sodium (Na)	Max 0.001%
Iron (Fe)	Max 0.0005%

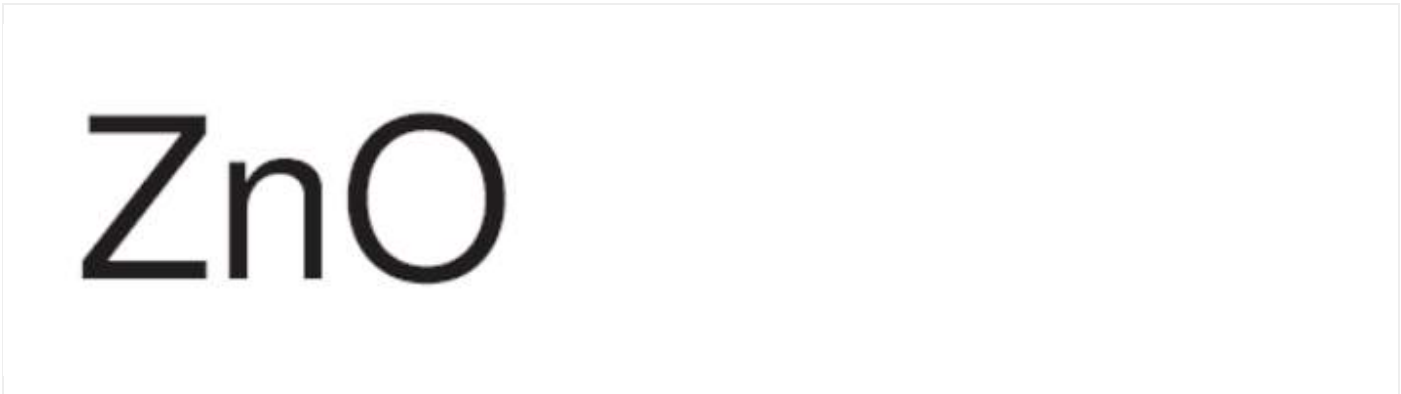
Safety Information and Hazard Symbols


Symbol: GHS03, GHS07 Signal Word: Danger UN No.: 1514 IMCO Class No.: 5.1 Packing Group: II Hazardous Statement: H272-H302-H315-H319-H335 Precaution Statement: P220-P261-P305 + P351 + P338

ZINC OXIDE 99% AR

Zinc white

Product Code.	02882	Grade	AR
Purity	99%	CAS No.	1314-13-2
Molecular Formula	ZnO	Molecular Weight	81.38
H.S.Code	2817.00100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1975°C	Density [g/cm3]	5.6	Solubility in water [% weight]	Insoluble in water

Packaging

Specification

Appearance	White powder
Assay (complexometric)	Min 99%
Substance insoluble in dilute H2SO4	Max 0.01%
Free alkali	Passes test
Chloride (Cl)	Max 0.001%
Sulphate (SO4)	Max 0.01%
Total nitrogen (N)	Max 0.0005%

Lead (Pb)	Max 0.002%
Copper (Cu)	Max 0.0005%
Iron (Fe)	Max 0.0005%
Manganese (Mn)	Max 0.0005%
Cadmium (Cd)	Max 0.0005%
Arsenic (As)	Max 0.0001%
Calcium (Ca)	Max 0.001%
Sodium (Na)	Max 0.001%
Substance reducing KMnO4 (as O)	Max 0.0008%

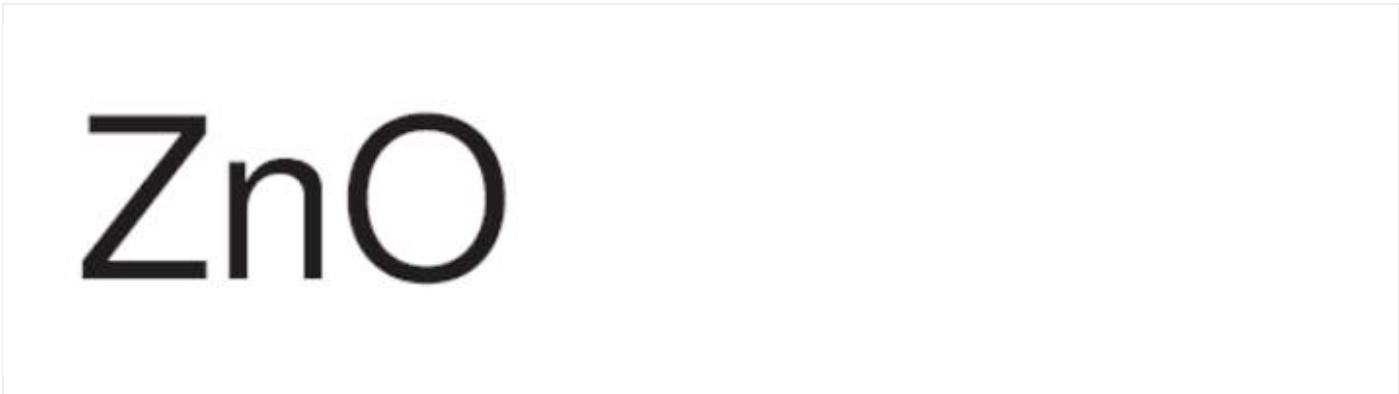
Safety Information and Hazard Symbols


Symbol: GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H410 Precaution Statement: P273-P501 Risk Statement: 50/53 Safety Statement: 60-61

ZINC OXIDE 99% EXTRAPURE

Confirming to IP Zinc white, Calamine, philosopher's wool, Chinese white, flowers of zinc

Product Code.	02881	Grade	Extrapure
Purity	99%	CAS No.	1314-13-2
Molecular Formula	ZnO	Molecular Weight	81.38
H.S.Code	2817.00100	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	1975°C	Density [g/cm3]	5.6	Solubility in water [% weight]	Insoluble in water

Packaging

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Specification

Appearance	A soft, white or faintly yellowish white amorphous powder, free from grittiness
Assay	99.0 - 100.5%
Identification	To pass IP test
Substance insoluble in acid and carbonate	To pass IP test
Alkalinity	To pass IP test
Arsenic (As)	Max. 0.0005%
Iron (Fe)	Max. 0.02%

Lead (Pb)	To pass IP test
Loss on ignition (at 500°C)	Max. 1.0%

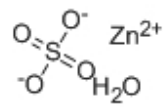
Safety Information and Hazard Symbols


Symbol: GHS09 Signal Word: Warning UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H410 Precaution Statement: P273-P501 Risk Statement: 50/53 Safety Statement: 60-61

ZINC SULPHATE DRIED MONOHYDRATE 99% EXTRAPURE

(Confirms to USP) White vitriol; Goslarite

Product Code.	02887	Grade	
Purity	99%	CAS No.	7446-19-7
Molecular Formula	ZnSO4.H2O	Molecular Weight	179.45
H.S.Code	2833.26900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	White crystalline powder
Assay (complexometric)	99 - 100.5%
Identity	Passes test
Acidity	Passes test
Chloride (Cl)	Max 0.002%
Arsenic (As)	Max 0.0005%
Lead (Pb)	Max 0.002%
Iron (Fe)	Max 0.003%

Alkalies and alkaline earths (as SO ₄)	Max 0.9%
Loss on drying (at 105°C)	Max 1%

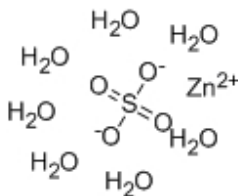
Safety Information and Hazard Symbols


Symbol: GHS05, GHS07, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H318-H410 Precaution Statement: P273-P280-P305 + P351 + P338-P501

ZINC SULPHATE HEPTAHYDRATE 99% EXTRAPURE

White vitriol; Goslarite ;(iron free white crystals)

Product Code.	02885	Grade	Extrapure
Purity	99%	CAS No.	7446-20-0
Molecular Formula	ZnSO4.7H2O	Molecular Weight	287.54
H.S.Code	2833.26900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	4 - 6	Melting point/ Freezing point [°C]	100°C	Density [g/cm3]	1.97
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	White crystalline powder
Assay	Min 99.0%
Chloride (Cl)	Max 0.002%
Iron (Fe)	Max 0.005%
Lead (Pb)	Max 0.005%

Safety Information and Hazard Symbols



Symbol: GHS05, GHS07, GHS09

Signal Word: Danger

UN No.: 3077

IMCO Class No.: 9

Packing Group: III

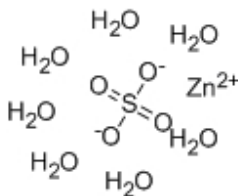
Hazardous Statement: H302-H318-H410

Precaution Statement: P273-P280-P305 + P351 + P338-P501

ZINC SULPHATE HEPTAHYDRATE 99.5% AR

White vitriol; Goslarite

Product Code.	02886	Grade	
Purity	99.0%	CAS No.	7446-20-0
Molecular Formula	ZnSO4.7H2O	Molecular Weight	287.54
H.S.Code	2833.26900	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White crystalline	Odour	Odorless
pH value	4 - 6	Melting point/ Freezing point [°C]	100°C	Density [g/cm3]	1.97
Solubility in water [% weight]	Soluble in water				

Packaging

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Specification

Appearance	White crystalline powder
Assay (complexometric)	99.0-103.0%
Insoluble matter (10% in water)	Max 0.01%
pH	pH 4.4 - 6.0
Chloride (Cl)	Max 0.0005%
Calcium (Ca)	Max 0.005%
Iron (Fe)	Max 0.001%

Potassium (K)	Max 0.01%
Magnesium (Mg)	Max 0.005%
Sodium (Na)	Max 0.05%
Ammonium (NH ₄)	Max 0.001
Nitrate (NO ₃)	Max 0.002%
Manganese (Mn)	Max 0.0003%
Lead (Pb)	Max 0.003%

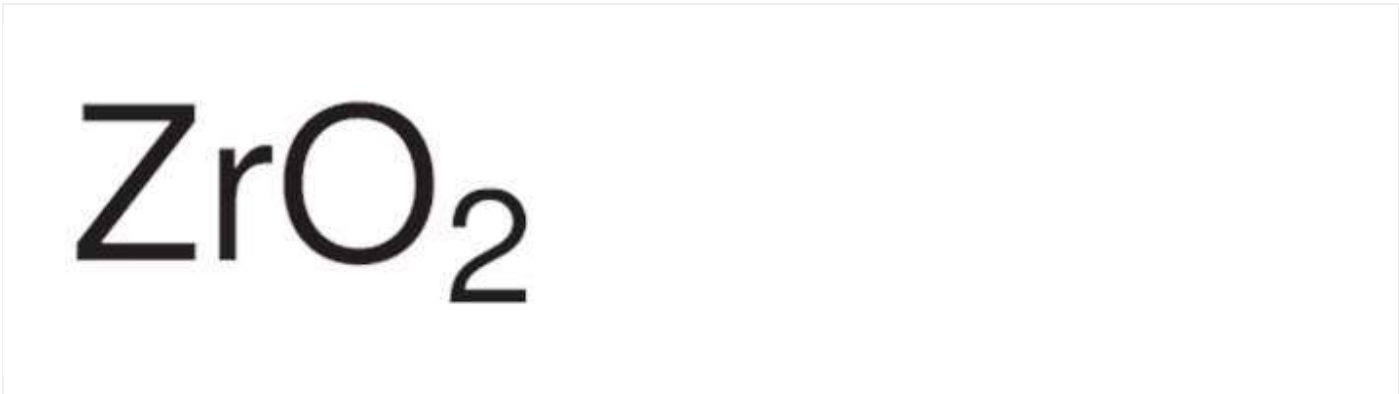
Safety Information and Hazard Symbols


Symbol: GHS05, GHS07, GHS09 Signal Word: Danger UN No.: 3077 IMCO Class No.: 9 Packing Group: III Hazardous Statement: H302-H318-H410 Precaution Statement: P273-P280-P305 + P351 + P338-P501

ZIRCONIUM DIOXIDE 97% EXTRAPURE

Zirconia ; (zirconium (IV) oxide)

Product Code.	02894	Grade	
Purity	97%	CAS No.	1314-23-4
Molecular Formula	ZrO2	Molecular Weight	123.22
H.S.Code	2825.60200	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	> 2600 °C	Boiling point [°C]	4300 °C	Density [g/cm3]	5.85
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	White crystalline powder.
Assay (as ZrO2+HfO2)	Min 97%
Silicate (SiO2)	Max 0.25%
Titanium (TiO2)	Max 0.16%
Iron (Fe2O3)	Max 0.07%
Loss on ignition (at 1000°C)	2.0 - 3.5%

Safety Information and Hazard Symbols



Symbol: GHS07

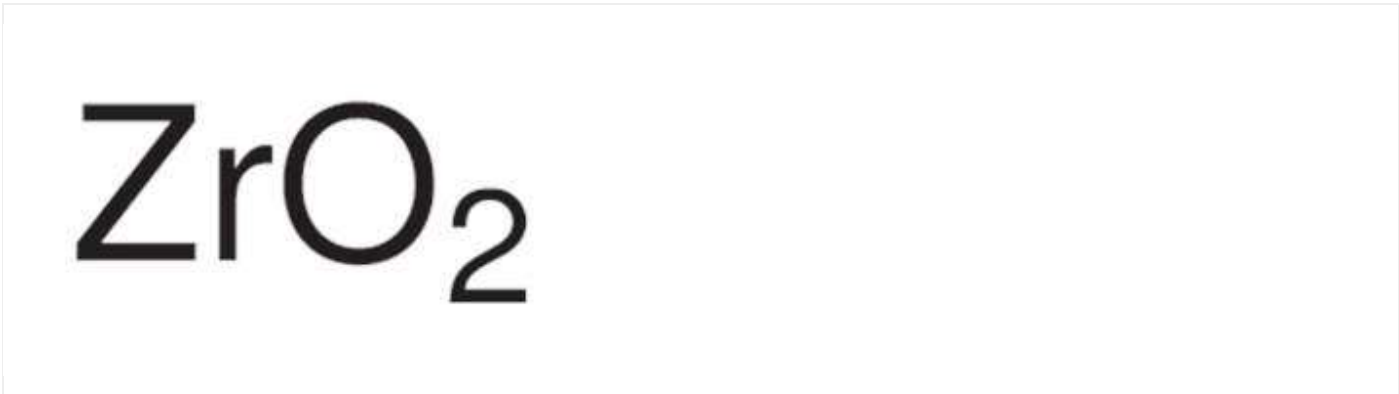
Signal Word: Warning

Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

ZIRCONIUM DIOXIDE 99.5% AR
Zirconia; Zirconium(IV) oxide

Product Code.	02895	Grade	
Purity	99.5%	CAS No.	1314-23-4
Molecular Formula	ZrO2	Molecular Weight	123.22
H.S.Code	2825.60200	Shelf Life	60 Months



Physical Properties

Physical state at 20 °C	Solid	Colour	White powder	Odour	Odorless
Melting point/ Freezing point [°C]	> 2600 °C	Boiling point [°C]	4300 °C	Density [g/cm3]	5.85
Solubility in water [% weight]	Insoluble in water				

Packaging

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Specification

Appearance	White crystalline powder.
Assay (as ZrO2+HfO2)	Min 99.5%
Silicate (SiO2)	Max 0.12%
Titanium (TiO2)	Max 0.007%
Iron (Fe2O2)	Max 0.002%
Pyconometric density (g/cc)	~ 5.7
Partical size (d10 - d90)	11 - 39 ?m

Safety Information and Hazard Symbols



Symbol: GHS07

Signal Word: Warning

Hazardous Statement: H315-H319-H335

Precaution Statement: P261-P305 + P351 + P338

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
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Владимир (4922)49-43-18
Волгоград (844)278-03-48
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Калининград (4012)72-03-81
Калуга (4842)92-23-67
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Киров (8332)68-02-04
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