

SAFETY DATA SHEET

according to Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
ST/SG/AC.10/30/Rev.8



Potassium Sulfate

Revision Date 25.11.19 Version G-EN-1 Date of previous issue: No Previous Validation

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade name : Potassium Sulfate.
Synonyms : Potassium sulphate / SOP
Use of the Sub-stance/Mixture : Use in the textile, metallurgical, chemical industries, as well as for use as raw materials in the production of mineral fertilizers.
Company : Manufacturer: Open Joint-Stock Company "The hydrometallurgical plant"
Legal address: 7, Promyshlennaya st., Lermontov, Stavropol'skiy reg, 357340, Russia
Provider: CASHMERE CAPITAL LTD
1N room, premises II, floor 5, building 2, house 4/7, Vozdvizhenka street, Moscow, 125009, Russia
Telephone : Manufacturer: +7 (879-35) 3-76-59
Provider: +7 (495) 989-70-73
E-mail address : cert@a-group.com
Emergency telephone number : Note: please, consult with your local/national competent authorities for the emergency number in your country.

SECTION 2. HAZARDS IDENTIFICATION

Classification and labelling according to Globally Harmonized System of Classification and Labelling of Chemicals (GHS), ST/SG/AC.10/30/Rev.8

<u>Hazard Class and Category Code(s):</u>	<u>Hazard Statement(s):</u>
Eye irritation, Category 2B	Serious eye damage/eye irritation.
Acute toxicity, oral, Category 5	May be harmful if swallowed.
Skin corrosion/irritation, Category 3	Causes mild skin irritation.

Hazard pictogram (s) : None

Signal Word : Warning.

Hazard statements : Serious eye damage/eye irritation.
May be harmful if swallowed.
Causes mild skin irritation.

Precautionary statements : IF SWALLOWED: Get medical help
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice or attention.
If skin irritation or rash occurs: Get medical advice or attention.

Disposal:
Dispose of contents or container to in accordance with local regulations.

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SECTION 3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical name	Concentration, wt. %	CAS-No
Potassium sulfate	99,3	7778-80-5

There are no additional ingredients, which are presented existing within the current supplier's knowledge and classified, contributed to the substance's classification and consequently required reporting in this section.

SECTION 4. FIRST AID MEASURES

General advice	: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes.
Inhalation	: If breathed in, move person into fresh air. Keep patient warm and at rest. Get medical advice or attention if you feel unwell.
Skin contact	: In case of contact, flush skin with soap and plenty of water. If skin irritation persists, call a physician.
Eye contact	: Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse with plenty of water and seek medical advice. If symptoms persist, call a physician.
Ingestion	: Rinse mouth with water. Get medical attention if you feel unwell.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media	: Adapt extinguishing media to the environment.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

Unusual fire and explosion hazards

Specific hazards	: while burning: release of toxic and corrosive gases/vapours (sulphur oxides).
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Special firefighting procedures

Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Further information	: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed in accordance with local regulations.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Avoid dust formation. Avoid breathe dust. Avoid contact with skin and eyes.
- Environmental precautions : Do not flush into surface water or sanitary sewer system. Prevent further spillage if safe to do so. Avoid release to the environment.
- Methods for cleaning up : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal. Avoid pollution of environment.
- Reference to other sections : See section 8 for personal protective equipment and section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

Handling

- Advice on safe handling : For personal protection see section 8. Avoid formation of dust. Avoid breathe dust. Avoid contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

- Requirements for storage areas and containers : Store in a place accessible by authorized persons only. Protect from moisture. Keep container in a dry and well-ventilated place. Store in paper bags, plastic bags, fabric polypropylene bags or specialized soft containers.
- Advice on common storage : Joint storage with acids, alkalis, organic substances, oxidizing agents, pesticides, mineral additives, preservatives, fodder and food products is prohibited.
- Storage period : 12 months.
- Other data : No data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Contains no substances with occupational exposure limits.

Exposure controls

- Engineering measures : Provide sufficient air exchange and/or exhaust in work rooms. Highly effective exhaust ventilation.

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Personal protective equipment

Respiratory protection : Respirator type N95, N99.

Skin and body protection : Protective clothing.
Choose body protection according to the amount and concentration of the dangerous substance at the working place.

Eye protection : Safety goggles (glasses) with clear lenses.
Use equipment for eye protection tested and approved under appropriate US government standards.

Hand protection : Protective gloves.
Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to working place. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Personal protective equipment (pictograms) :



Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. General industrial hygiene practice. Avoid breathing dust. Avoid contact with skin, eyes and clothing. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Follow the eyes and face protection plan.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Solid.
Color : White.
Odor : Odorless.
Odor threshold : Not available.
Upper/lower flammability or explosive limits : No data available.
Vapor density : Not applicable. The product is a solid at normal conditions.
Vapor pressure : Not applicable. The product is a solid at normal conditions.
pH : 5.5 – 7.5
Relative density : 1,2 t/m³.
Bulk density : No data available.
Melting point/freezing point : 1067 -1074°C.
Solubility in water (t-20 °C) : 110000 mg/l.
Initial boiling point and boiling range : 1689 °C.
Flash point : Not applicable. The product does not evaporate.
Evaporation rate : Not applicable. The product is a solid at normal conditions.
Flammability (solid, gas) : Non-flammable.
Partition coefficient: n-octanol/water : Not applicable.
Auto-ignition temperature : No data available.

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Decomposition temperature : No data available.
Viscosity : Not applicable. The product is a solid at normal conditions.
Explosive properties : No chemical group which is associated with explosive properties
Oxidising properties : No chemical group which is associated with explosive properties

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Substance has acid reaction.
Chemical stability : Stable under normal conditions.
Incompatibility (materials to avoid) : Aluminium, metal.
Hazardous decomposition products : while burning release of toxic and corrosive gases/vapours (sulphur oxides).
Hazardous polymerization : Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential acute health effect

Inhalation : There are no toxicological effects.
Eyes : Eye damage/irritation.
Skin : Skin corrosion/irritation.
Ingestion : Acute toxicity - oral.

Sensitization of the respiratory / skin

Skin sensitization : Not sensitive for skin.
Respiratory sensitization : Non - respiratory sensitizing.

Acute toxicity

Acute oral toxicity

Potassium sulphate : DL₅₀ (rat): > 2 000 mg/kg bw

Acute dermal toxicity

Potassium sulphate : DL₅₀ (rat): > 2 000 mg/kg bw

Acute inhalation toxicity

Potassium sulphate : LC₅₀ (rat): > 1.2 mg/l, Exposure time: 4 h

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Chronic toxicity

No data available.

Mutagenicity

No mutagenic effect.

Carcinogenicity

No carcinogenic effect.

Reproductive toxicity

No reproductive effect.

Aspiration hazard

Not applicable. The product is a solid at normal conditions.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish:

Potassium sulphate : LC₅₀ (Pimephales promelas): 680 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

Potassium sulphate : LC₅₀ (Daphnia magna): > 720 mg/l
Exposure time: 48 h

Toxicity to aquatic plants:

Potassium sulphate : EC₅₀ (Chlorella vulgaris): > 2700 mg/l
Exposure time: 18 day(s)

Toxicity aquatic microorganisms : EC₅₀ (Activated sludge): > 100 mg/l
NOEC (Activated sludge): 100 mg/l

Long-term study fish/daphnia and other aquatic invertebrates/aquatic plants:

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Methods of disposal

Advice on disposal and packaging : Disposal:
In accordance with local and national regulations. Do not dispose of waste into sewer. This material and its container must be disposed of in a safe way. Do not dispose of together with household waste.
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORT INFORMATION

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Regulatory information	UN number	Proper shipping name	Class	Packing group
DOT	-	Not dangerous goods.	-	-
ADR / RID	-	Not dangerous goods.	-	-
IMDG	-	Not dangerous goods.	-	-
IATA	-	Not dangerous goods.	-	-

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable

SECTION 15. REGULATORY INFORMATION

A chemical safety assessment has been performed

Ozone depleting substances

Not listed.

Seveso Directive

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent

Not listed.

SECTION 16. OTHER INFORMATION

Abbreviations and acronyms : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can't guarantee that these are the only hazards that exist.