



Safety Data Sheet (SDS)- Potassium Sulfate

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Report Document

Report Topic					
Safety Data Sheet (SDS)- Potassium Sulfate					
Purpose of Report					
Awareness and clarification of safety issues related to potassium sulfate product					
Target Audience					
Organization stakeholders (including colleagues, customers, consumers, etc.)					
Other required details					
Revision number	Writing start date	Date of completion of writing	Prepared by	Approved by	Description
00	2024-8-15	2024-8-15	Amir Hossein Haratian	Amir Rafie	Initial writing
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Table of contents

Section 1: Identification of the Substance and Company	5
Section 2: Hazard Identification	5
Section 3: Composition and Information on Ingredients	5
Section 4: First Aid Measures	5
Section 5: Firefighting Measures	5
Section 6: Accidental Release Measures	6
Section 7: Handling and Storage	6
Section 8: Exposure Controls and Personal Protection	6
Section 9: Physical and Chemical Properties	6
Property	6
Value	6
Property	6
Value	6
Appearance	6
Powder, granules, or crystals	6
Decomposition Temperature	6
Above 700°C	6
Color	6
White	6
Auto-ignition Temperature	6
Does not burn	6
Odor	6
Not applicable	6
Explosion Hazard	6
Not specified	6
Odor Threshold	7
Not applicable	7
Explosion Limits	7
Not specified	7
pH (1% Solution)	7
3.7	7
Vapor Pressure	7
Not applicable	7
Melting Point	7

1956.2°F (1069°C)	7
Density	7
2660 kg/m ³	7
Boiling Point	7
3072.2°F (1689°C)	7
Relative Density	7
2.66	7
Sublimation Temperature	7
Not specified	7
Evaporation Rate	7
Not specified	7
Flash Point	7
Not specified	7
Water Solubility	7
Completely soluble	7
Flammability	7
Not specified	7
Partition Coefficient	7
Not specified	7
Ignition Temperature	7
Not specified	7
Viscosity	7
Not applicable	7
Section 10: Stability and Reactivity	7
Section 11: Toxicological Information	7
Section 12: Environmental Information	7
Section 13: Disposal Considerations	7
Section 14: Transport Information	8
Section 15: Regulatory Information	8
Section 16: Other Information	8

Section 1: Identification of the Substance and Company

Product Name: Potassium Sulfate
Trade Names: SoluPotas, Potassium Sulfate
CAS Number: 7778-80-5
Appearance: White powder (granule or crystal)
Uses: Fertilizer, industrial applications
Manufacturer: Sanat Potas Asia
Address: Unit 1, No 8, 17th Alley, South Gandhi St, Tehran, Iran.
Phone: +98 21-88661968 / +98 21-88886036
Fax: +98 21-88660379
Email: [info@ apic.ir](mailto:info@apic.ir)

Section 2: Hazard Identification

Classification (GHS): Not classified as hazardous.

Health & Environmental Effects: No known hazards under normal conditions.

Label Elements: No hazard pictograms or signal words are required.

Other Hazards:

- Can produce toxic fumes or gases if burned.
- Dust may cause irritation to eyes, skin, and respiratory system.
- Ingestion may cause nausea and digestive discomfort.

Section 3: Composition and Information on Ingredients

Substance: Potassium Sulfate (K_2SO_4)
Concentration: 90-100%
Molecular Weight: 174.26 g/mol
CAS Number: 7778-80-5

Section 4: First Aid Measures

Inhalation: Move the person to fresh air. Seek medical attention if symptoms persist.

Ingestion: Rinse mouth with water and drink plenty of water. Do not induce vomiting. Seek medical help if pain or swallowing difficulty occurs.

Skin Contact: Remove contaminated clothing and wash affected skin with warm water. Seek medical help if irritation occurs.

Eye Contact: Rinse eyes with lukewarm water for 15 minutes while keeping eyes open. Avoid splashing into the unaffected eye. Seek medical attention if irritation continues.

Acute & Delayed Symptoms: May cause mild irritation, tearing, redness, or discomfort in eyes and respiratory system.

Medical Attention: Treat symptomatically.

Section 5: Firefighting Measures

Flammability: Non-flammable.

Suitable Extinguishing Media: Use appropriate extinguishing agent for surrounding fire.

Special Fire Hazards: May decompose and produce toxic gases (SO_x).

Protective Measures: Wear full protective gear and respiratory protection. Prevent contaminated runoff from entering water sources.

Section 6: Accidental Release Measures

Personal Protection: Keep unnecessary personnel away. Use dust masks and protective clothing. Avoid inhaling dust.

Environmental Precautions: Do not release into the environment. Prevent material from entering drains or waterways.

Cleanup Methods: Use a vacuum to collect spilled material without generating dust. Dispose of properly.

Section 7: Handling and Storage

Handling Precautions: Avoid inhaling dust and minimize dust accumulation. Ensure proper ventilation. Wash hands after handling.

Storage Conditions: Store in a dry, well-ventilated place in a tightly closed container. Keep away from children.

Section 8: Exposure Controls and Personal Protection

Exposure Limits: No established exposure limits.

Engineering Controls: Ensure adequate ventilation to minimize dust concentration.

Personal Protective Equipment (PPE):



- **Hand Protection:** Wear protective gloves.
- **Eye Protection:** Use safety goggles.
- **Skin Protection:** Wear long-sleeved clothing and protective gloves.
- **Respiratory Protection:** Use a dust mask in case of excessive dust.

Section 9: Physical and Chemical Properties

Property	Value	Property	Value
Appearance	Powder, granules, or crystals	Decomposition Temperature	Above 700°C
Color	White	Auto-ignition Temperature	Does not burn
Odor	Not applicable	Explosion Hazard	Not specified

Odor Threshold	Not applicable	Explosion Limits	Not specified
pH (1% Solution)	3.7	Vapor Pressure	Not applicable
Melting Point	1956.2°F (1069°C)	Density	2660 kg/m ³
Boiling Point	3072.2°F (1689°C)	Relative Density	2.66
Sublimation Temperature	Not specified	Evaporation Rate	Not specified
Flash Point	Not specified	Water Solubility	Completely soluble
Flammability	Not specified	Partition Coefficient	Not specified
Ignition Temperature	Not specified	Viscosity	Not applicable

Section 10: Stability and Reactivity

Reactivity: May react with aluminum and magnesium.

Chemical Stability: Stable under normal conditions.

Hazardous Reactions: None under normal use.

Decomposition Products: Sulfur oxides (SO₂ or SO₃), potassium oxides (K₂O).

Section 11: Toxicological Information

Oral Toxicity (LD50): 6600 mg/kg

Dermal Toxicity (LD50): Greater than 2000 mg/kg

Acute Inhalation Toxicity: No known effects

Eye/Skin Irritation: Possible mild irritation

Carcinogenicity: Not classified as a carcinogen

Reproductive Toxicity: No known effects

Section 12: Environmental Information

Environmental Toxicity: Not classified as hazardous.

Biodegradability: No known impact.

Bioaccumulation Potential: Not expected.

Soil Mobility: Soluble in water, low persistence.

Section 13: Disposal Considerations

Waste Disposal: Follow all local regulations. Can be disposed of as a non-hazardous material.

Packaging Disposal: Dispose of in accordance with environmental regulations.

Section 14: Transport Information

DOT / IATA / IMDG Classification: Not classified as hazardous for transport.

Section 15: Regulatory Information

Potassium sulfate is included in multiple regulatory lists, including:

Region/Country	Regulatory System
United Kingdom	Workplace Hazardous Materials Information System (WHMIS)
Canada	Domestic Substances List (DSL)
United States	DOE Temporary Emergency Exposure Limits (TEELs)
United States	EPA High Production Volume Chemicals Additional List
United States	US Food Additive Database
United States	US Toxic Substances Control Act (TSCA)

Section 16: Other Information

Preparation Date: 2024-8-15

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