



# Material Safety Data Sheet


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## Section 1 - Product and Company Identification

Product name : Potassium sulfate
Other names : --
Product use : Used as raw material for kali salt, intermediate for dyes, deposit cleaner for glass industry, assistant for perfume and purgative retainer for medicine.
Supplier's name : San Fu Chemical Co., Ltd., Shan Hua Plant
Supplier's address : 340 Hsiao Hsin Li, Shan Hua Town, Tainan Hsien, Taiwan, R.O.C.
Supplier's phone : 06-5837608                      Emergency phone : 06-5837608
FAX. : 06-5839498

## Section 2 - Hazards Identification

Classification : 1. Skin corrosion / irritation                      Category 3 2. Serious eye damage/eye irritation              Category 2B
The Most Important Hazards and effect Label element : Hazard symbol : Exclamation Mark  Signal word : Warning
Hazard statement : 1. May cause moderate skin irritation 2. May cause eye irritation
Precautionary statement : 1. Wear appropriate protective clothing. 2. In case of contact with eyes, flush with plenty of water, and get medical attention. 3. In case of accident or discomfort, get medical attention immediately
Others Hazard : /

## Section 3 - Composition/Information On Ingredients

pure substance :

Chemical name : Potassium sulfate
Synonyms : Sulfuric acid dipotassium salt; sal polychrestum
CAS No. : 7778-80-5
Ingredient contributing to the hazard(%) : 99 %



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## Section 4 - First Aid Measures

<p>The First-aid Information :</p> <ul style="list-style-type: none"><li>■ Inhalation : Remove to fresh air. Get medical attention for any breathing difficulty.</li><li>■ Skin Contact : Flush skin with soap and water for at least 15 minutes. Get medical aid if irritation.</li><li>■ Eye Contact : Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical advice if irritation develops or persists.</li><li>■ Ingestion : Allow the victim to rinse his mouth and then to drink water, and seek medical advice.</li></ul>
<p>The Most Important Symptoms and Hazardous Effects :</p> <ul style="list-style-type: none"><li>■ Gastrointestinal(GI) : May cause gastrointestinal irritation with nausea, vomiting and diarrhea.</li><li>■ Genitourinary(GU) : Overexposure to the substance may cause moderate diuretic effect.</li><li>■ Fluid and electrolyte balance : May cause abnormality in fluid and electrolyte balance after serious diarrhea.</li></ul>
<p>Protection of First-aiders : no information available</p>
<p>Notes to a Physician :</p> <p>Treatment for ingestion :</p> <ul style="list-style-type: none"><li>■ Induce vomiting : Consider inducing vomiting at the early stage of ingestion unless the patient has gone or is going into bluntness, coma, or seizure; most effective within 30 min since ingestion. (Ipecac syrup: Adult 30ml; 1-12 yr Children: 15ml)</li><li>■ Do not use laxative for treatment.</li><li>■ If patients with Congestive Heart Failure(CHF) have excessive body sodium and normal kidney function, use diuretic (e.g. furosemide) (IV injection, 1mg/kg, Max. 40mg) for treatment.</li><li>■ Seizure : Administer IV injection of diazepam (Dosage: Adult: initially 5-10 mg, repeated every 15 min to a total cumulative dose of 30mg; Children: a dose of 0.25-0.4 mg/kg, Max. 10mg). If seizure uncontrollable, give phenytoin or phenobarbital.</li><li>■ Hypotension : Treat by IV infusion in the Trendelenburg position. If no response to treatment, give dopamine (2-5 mcg/kg/min) or norepinephrine (0.1 - 0.2mcg/kg/min), and make adjustment to doses depending on symptoms of hypotension.</li></ul>

## Section 5 - Fire Fighting Measures

<p>Extinguishing Media : --</p>
<p>Specific Hazards when Fire-fight : Non-flammable. Nearby ignition source may cause release of hazardous vapor. May produce sulfoxide when caught on fire.</p>
<p>Specific Fire-fighting Procedure : --</p>
<p>Specific Protection of Firefighters : Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.</p>

## Section 6 - Accidental Release Measures

<p>Personal Precautions : Avoid generation of dusts; do not inhale dusts.</p>
<p>Environmental Precautions : Avoid discharge into sewer.</p>



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Methods for Cleaning up :

1. Take up dry. Forward for disposal.
2. Clean up affected area. Avoid generation of dusts.

## Section 7 - Handling and Storage

Handling : Handled in cool, dry, ventilated area.

Storage : Keep container tightly closed in a dry, well-ventilated area.

## Section 8 - Exposure Controls & Personal Protection

Engineering measures : Use proper exhaust ventilation to keep airborne levels below recommended exposure limits.

### Control parameters

TWA	STEL	Ceiling	Biological standards
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Personal protective equipment :

Protective gears should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective gears to chemicals should be ascertained with the respective supplier.

- Respiratory Protection : dust-proof mask when dusts generated
- Hand Protection : rubber gloves
- Eye Protection : safety glasses/goggles
- Skin and Body Protection : no specific requirement

Hygiene measures : Smoking, eating and drinking are prohibited in work area. Wash hands after working with substance.

## Section 9 - Physical & Chemical Properties

Appearance : solid, finecrystalline	Odor : odorless
Color : colorless, white	Melting Point: 1067 °C
pH value : 5.5~7.5	Boiling point/boiling range : 1689 °C
Flammability: --	Flash point : --
Decomposition temp : --	Test method : --
Auto ignition temp : --	Explosion properties : --
Vapor pressure : --	Vapor density : --
Density : 2.66 g/cm <sup>3</sup> , no water	Solubility : 11.1 g/100 ml H <sub>2</sub> O(20 °C)
log Kow : --	Evaporation Rate : --

## Section 10 - Stability & Reactivity Data

Stability : stable under normal conditions

Possible hazardous reactions under specific conditions : None



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Conditions to avoid : Heating

Materials to avoid : aluminum/heat and magnesium/heat

Hazardous decomposition products : Oxides of sulfur and potassium

## Section 11 - Toxicological Information

Route of exposure : Inhalation 、 Skin 、 Eye 、 Ingestion

Symptoms : irritation

Immediate Toxicity :

1. Skin : causes skin irritation and itchiness, and possibly serious skin irritation
2. Inhalation : causes respiratory tract irritation; symptoms include coughing and sore throat
3. Eye : causes irritation, and possibly pain
4. Ingestion : cause stomachache, diarrhea, nausea, and vomiting
  - Toxic Effects on Humans: Ingestion of large amount of potassium sulfate causes severe gastrointestinal tract irritation.
  - Toxicity to Animals: Injured cattle treated by potassium sulfate died in 2days, and appeared to have physical weakness, nerve paralysis, hypothermia, end of rumination, and constipation. Results of dissection showed abomasums and mucous membrane of small intestines congested.
  - LD<sub>50</sub>: 6600 mg/kg (Oral 、 rat)
  - LC<sub>50</sub>: --

Specific effects : --

## Section 12 - Ecological Information

Ecotoxicology :

- LC<sub>50</sub>(fish) : --
- EC<sub>50</sub>(Aquatic Invertebrates) : --
- Bioconcentration factor (BCF) : --

Persistence and degradability :

- Half-Life (Air) : --
- Half-Life (Water surface) : --
- Half-Life (Groundwater) : --
- Half-Life (Soil) : --

Bioaccumulative potential : --

Mobility in soil : --

Other adverse effects : --

## Section 13 - Disposal Considerations

Methods of disposal : Dispose of as special waste in compliance with local and national environmental laws and regulations.

## Section 14 - MSDS Transport Information

UN classification number : --



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Proper D.O.T Shipping Name : --
Hazard Class : --
Packing Group : --
Marine pollution : None
Specific precautionary transport measures and conditions : --

## Section 15 - Regulatory Information

Regulations :
1. Labor Safety and Health Facilities Regulations
2. Toxic Chemical Substances Labeling and Safety Data Regulations
3. Road Traffic Safety Regulations

## Section 16 - Other Information

Literature references	1.CHEMINFO Data Bank, CCINFO CD, 2005-3 2.RTECS Data Bank, TOMES PLUS CD, Vol.65, 2005 3.HSDB Data Bank, TOMES PLUS CD, Vol.65, 2005 4.ChemWatch Data Bank, 2005-1		
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Remarks	Symbols Explanations: "--" No information is available at this time. "/" Not applicable to this substance.		
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