Material Safety Data Sheet
Potassium sulfate

ACC# 19590

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Potassium sulfate  
**Catalog Numbers:** AC205940000, AC205945000, AC207770000, AC207775000, AC424210000, AC424210010, AC424220000, AC424220010, AC424220250, NC9179989, P304-10, P304-3, P304-500, P305-500, P306-300LB  
**Synonyms:** Dipotassium sulfate; Potassium sulfate (2:1); Sulfuric acid, dipotassium salt.  
**Company Identification:**  
Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410  
For information, call: 201-796-7100  
Emergency Number: 201-796-7100  
For CHEMTREC assistance, call: 800-424-9300  
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-80-5</td>
<td>Potassium sulfate</td>
<td>&gt;99</td>
<td>231-915-5</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white solid.  
**Caution!** May cause eye and respiratory tract irritation. This is expected to be a low hazard for usual industrial handling.  
**Target Organs:** None.

**Potential Health Effects**  
**Eye:** Dust may cause mechanical irritation.  
**Skin:** Low hazard for usual industrial handling.  
**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Potassium sulfate has been used as a cathartic.  
**Inhalation:** Inhalation of dust may cause respiratory tract irritation.  
**Chronic:** Not expected to be a chronic hazard.
Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

**Skin:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible. Decomposes at high temperatures, resulting in toxic and corrosive products.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Explosion Limits, Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

**Storage:** Store in a cool, dry place. Keep container closed when not in use.

Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
</table>

http://fscimage.fishersci.com/msds/19590.htm
OSHA Vacated PELs: Potassium sulfate: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Glove protection is not normally required.

**Clothing:** Protective garments not normally required.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

### Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** white

**Odor:** Odorless

**pH:** ~ 7 (aq soln)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 1689 deg C @ 760 mmHg

**Freezing/Melting Point:** 1067 deg C

**Decomposition Temperature:** Not available.

**Solubility:** 110 g/l (20°C)

**Specific Gravity/Density:** 2.66 g/cm3

**Molecular Formula:** K2O4S

**Molecular Weight:** 174.26

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation.

**Incompatibilities with Other Materials:** No significant incompatibilities identified with common materials and contaminants.

**Hazardous Decomposition Products:** Oxides of sulfur, oxides of potassium.

**Hazardous Polymerization:** Will not occur.

### Section 11 - Toxicological Information

**RTECS#:**

**CAS# 7778-80-5:** TT5900000

**LD50/LC50:**

**CAS# 7778-80-5:**
Oral, mouse: LD50 = 6600 mg/kg; Oral, rat: LD50 = 6600 mg/kg;

Carcinogenicity:
CAS# 7778-80-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: This chemical has no biological oxygen demand, and it will not cause oxygen depletion in aquatic systems. It has a low potential to affect aquatic systems. If diluted with water, this chemical released directly or indirectly into the environment is not expected to have a significant impact.
Physical: No information available.
Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

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<thead>
<tr>
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<th>US DOT</th>
<th>Canada TDG</th>
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<tbody>
<tr>
<td>Shipping Name:</td>
<td>Not regulated</td>
<td></td>
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<tr>
<td>Hazard Class:</td>
<td></td>
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<tr>
<td>UN Number:</td>
<td></td>
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<tr>
<td>Packing Group:</td>
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Section 15 - Regulatory Information

US FEDERAL
TSCA
   CAS# 7778-80-5 is listed on the TSCA inventory.

Health & Safety Reporting List
   None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
   None of the chemicals in this product are under a Chemical Test Rule.

Section 12b
   None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
   None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs
   None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances
   None of the chemicals in this product have a TPQ.

Section 313   No chemicals are reportable under Section 313.

Clean Air Act:
   This material does not contain any hazardous air pollutants.
   This material does not contain any Class 1 Ozone depletors.
   This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
   None of the chemicals in this product are listed as Hazardous Substances under the CWA.
   None of the chemicals in this product are listed as Priority Pollutants under the CWA.
   None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
   None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
   CAS# 7778-80-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
   Not available.

Risk Phrases:

Safety Phrases:
   S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
   CAS# 7778-80-5: 1

Canada - DSL/NDSL
   CAS# 7778-80-5 is listed on Canada's DSL List.

Canada - WHMIS
   This product has a WHMIS classification of Not controlled..
   This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

http://fscimage.fishersci.com/msds/19590.htm
MSDS Creation Date: 12/12/1997  
Revision #8 Date: 2/15/2008  

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