POTASSIUM SULFATE

1. Product Identification

Synonyms: Sulfuric acid dipotassium salt; sal polychrestum
CAS No.: 7778-80-5
Molecular Weight: 174.26
Chemical Formula: K₂SO₄
Product Codes:
J.T. Baker: 3278, 3282, 3290
Mallinckrodt: 1541, 4525, 4553, 4688, 4698, 6349, 7128, 7130, 7132, 7133, 7139, 7140, 7144, 7148, 7153, 7167

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Sulfate</td>
<td>7778-80-5</td>
<td>90 - 100%</td>
<td>No</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

http://www.jtbaker.com/msds/englishhtml/P6137.htm

12/16/02
J.T. Baker SAF-T-DATA™ Ratings (Provided here for your convenience)

Health Rating: 1 - Slight
Flammability Rating: 0 - None
Reactivity Rating: 0 - None
Contact Rating: 0 - None
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Orange (General Storage)

Potential Health Effects

Inhalation:
Possible nuisance dust effect, sneezing or coughing.
Ingestion:
Large oral dosages may produce gastrointestinal disturbances and irritation.
Skin Contact:
Not expected to be a health hazard from skin exposure.
Eye Contact:
No adverse effects expected but dust may cause mechanical irritation.
Chronic Exposure:
Not expected to be a health hazard. Potassium poisoning may occur in rare cases of long exposure or ingestion.
Aggravation of Pre-existing Conditions:
No adverse health effects expected.

4. First Aid Measures

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion:
If large amounts were swallowed, give water to drink and get medical advice.
Skin Contact:
Wash exposed area with soap and water. Get medical advice if irritation develops.
Eye Contact:
Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:
Not considered to be a fire hazard.
Explosion:
Not considered to be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.
Special Information:
Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. Accidental Release Measures
Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
- OSHA Permissible Exposure Limit (PEL):
  15 mg/m³ total dust, 5 mg/m³ respirable fraction for nuisance dusts.
- ACGIH Threshold Limit Value (TLV):
  10 mg/m³ total dust containing no asbestos and < 1% crystalline silica for Particulates Not Otherwise Classified (PNOC).

Ventilation System:
In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:
White granules or powder.

Odor:
Odorless.

Solubility:
Soluble in water.

Density:
2.66

pH:
ca. 7

% Volatiles by volume @ 21C (70F):
0
10. Stability and Reactivity

**Stability:**
Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**
Oxides of sulfur and potassium.

**Hazardous Polymerization:**
Will not occur.

**Incompatibilities:**
Aluminum and magnesium.

**Conditions to Avoid:**
Incompatibles.

11. Toxicological Information

LD50 Oral Rat: 6600 mg/kg.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>---</th>
<th>---</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Sulfate (7778-80-5)</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

12. Ecological Information

**Environmental Fate:**
No information found.

**Environmental Toxicity:**
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and
14. Transport Information

Not regulated.

15. Regulatory Information

--- Chemical Inventory Status - Part 1 ---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Sulfate (7778-80-5)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

--- Chemical Inventory Status - Part 2 ---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Canada</th>
<th>Korea</th>
<th>DSL</th>
<th>NDSL</th>
<th>Phil.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Sulfate (7778-80-5)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

--- Federal, State & International Regulations - Part 1 ---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RQ</th>
<th>TPQ</th>
<th>List Chemical Catg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Sulfate (7778-80-5)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

--- Federal, State & International Regulations - Part 2 ---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CERCLA</th>
<th>RCRA-261.33</th>
<th>TSCA-8(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Sulfate (7778-80-5)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No SARA 311/312: Acute: No Chronic: No Fire: No Pressure: No Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.
Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0
Label Hazard Warning:
As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.
Label Precautions:
None.
Label First Aid:
Not applicable.
Product Use:
Laboratory Reagent.
Revision Information:
MSDS Section(s) changed since last revision of document include: 8.
Disclaimer:
*****************************************************************************

Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
*****************************************************************************

Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)