Material Safety Data Sheet
Aluminum Potassium Sulfate Dodecahydrate

ACC# 19200

MSDS Name: Aluminum Potassium Sulfate Dodecahydrate
Synonyms: Alum; Aluminum potassium sulfate, dodecahydrate; Kalinite; Potassium alum; Sulfuric acid, aluminum potassium 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>NFPS/ELINGCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7784-24-9</td>
<td>Aluminum Potassium Sulfate Dodecahydrate</td>
<td>100</td>
<td>unlisted</td>
</tr>
</tbody>
</table>

Hazard Symbols: None listed.
Risk Phrases: None listed.

Section 3: Hazards Identification

EMERGENCY OVERVIEW

Appearance: white. Caution! Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. May cause respiratory and digestive tract irritation. May cause severe eye irritation and possible injury.
Target Organs: None.

Potential Health Effects
Eye: Causes eye irritation.
Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist.
Ingestion: Ingestion of large amounts may cause gastrointestinal irritation.
Inhalation: Dust is irritating to the respiratory tract.
Chronic: No information found.
**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

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

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**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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire.

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**Section 6 - Accidentual Release Measures**

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

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

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**Section 7 - Handling and Storage**

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Wash clothing before reuse. Discard contaminated shoes.

**Storage:** Store in a cool, dry place. Keep containers tightly closed. Keep away from strong bases.

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**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>
<tbody>
<tr>
<td>Aluminum Potassium Sulfate Dodecahydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Aluminum Potassium Sulfate Dodecahydrate: 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:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**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 a respirator's use.

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**Section 9: Physical and Chemical Properties**

**Physical State:** Solid

**Appearance:** white

**Odor:** odorless

**pH:** 3.3 (0.2M solution)

**Vapor Pressure:** Not applicable.

**Vapor Density:** 16.4

**Evaporation Rate:** Not applicable.

**Viscosity:** Not applicable.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 92.5 deg C

**Autoignition Temperature:** Not applicable.

**Flash Point:** Not applicable.

**Decomposition Temperature:** 200 deg C

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Reactivity: 0

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

**Upper:** Not available.

**Solubility:** Partially soluble.

**Specific Gravity/Density:** 1.757

**Molecular Formula:** AlK(SO4)2.12H2O

**Molecular Weight:** 474.3558

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**Section 10: Stability and Reactivity**

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

**Conditions to Avoid:** Incompatible materials, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, steel, aluminum, copper, zinc.

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

**Hazardous Polymerization:** Has not been reported

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**Section 11: Toxicological Information**

**RTECS#:**

**CAS # 7784-24-9:** WS5690000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

**CAS # 7784-24-9:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
**Epidemiology:** No information available.
**Teratogenicity:** No information available.
**Reproductive Effects:** No information available.
**Neurotoxicity:** No information available.
**Mutagenicity:** No information available.
**Other Studies:** No data available.

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**Section 13 - Ecological Information**

No information available.

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**Section 14 - 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.

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**Section 15 - Transport Information**

| Shipping Name: | No information available. |
| Hazard Class: | No information available. |
| UN Number: | |
| Packing Group: | |

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**US FEDERAL**

**TSCA**
CAS# 7784-24-9 is not listed on the TSCA inventory. It is for research and development use only.

**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.

**SARA**

**Section 302 (RQ)**
None of the chemicals in this material have an RQ.

**Section 302 (TPQ)**
None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 7784-24-9: chronic.

**Section 313**

This material contains Aluminum Potassium Sulfate Dodecahydrate (listed as **undefined **), 100%, (CAS # 7784-24-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**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# 7784-24-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

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:**

**WGK (Water Danger/Protection)**

CAS# 7784-24-9: No information available.

Canada

Canada

None of the chemicals in this product are listed on the DSL or NDSL list. This product has a WHMIS classification of D2B.

CAS# 7784-24-9 is not listed on Canada's Ingredient Disclosure List.

**Exposure Limits**

CAS# 7784-24-9: OEL-AUSTRALIA:TWA 2 mg(Al)/m3 OEL-BELGIUM:TWA 2 mg(Al)/m3 OEL-DENMARK:TWA 2 mg(Al)/m3 OEL-FRANCE:TWA 2 mg(Al)/m3 OEL-Netherlands:TWA 2 mg(Al)/m3 OEL-RUSSIA:TWA 2 mg(Al)/m3 OEL-SWEDEN:TWA 2 mg(Al)/m3 OEL-SWITZERLAND:TWA 2 mg(Al)/m3 OEL-UNITED KINGDOM:TWA 2 mg(Al)/m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**MSDS Creation Date:** 5/08/1998

**Revision #1 Date:** 8/02/2000

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