Material Safety Data Sheet
Chromium (III) Potassium Sulfate Dodecahydrate

ACC# 19330

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Chromium (III) Potassium Sulfate Dodecahydrate  
**Catalog Numbers:** S79967, C337 500, C337-500, C337500, S72229C, S72229F, S76786  
**Synonyms:** Chromium (III) Potassium sulfate, dodecadrate; Chromic Alum (Dodecahydrate); Potassium Chromium Alum Dodecahydrate.  
**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>
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<tbody>
<tr>
<td>7788-99-0</td>
<td>Chromium (III) Potassium Sulfate Dodecahydrate</td>
<td>100</td>
<td>unlisted</td>
</tr>
</tbody>
</table>

Hazard Symbols: XI  
Risk Phrases: 36/38

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: grey crystals. **Warning!** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause allergic respiratory reaction. May cause allergic skin reaction. **Target Organs:** Lungs.

**Potential Health Effects**  
**Eye:** Causes eye irritation.  
**Skin:** Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.  
**Ingestion:** No hazard expected in normal industrial use.  
**Inhalation:** Dust is irritating to the respiratory tract. Causes irritation of mucous membrane.  
**Chronic:** Prolonged or repeated skin contact may cause defatting and dermatitis.
Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**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 immediately.

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

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

**Antidote:** None reported.

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.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

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

**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 only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection
**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**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>Chromium (III) Potassium Sulfate Dodecahydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Chromium (III) 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 minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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**Section 9 - Physical and Chemical Properties**

**Physical State:** Crystals

**Appearance:** purple - grey

**Odor:** none reported

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 752 deg F

**Freezing/Melting Point:** 192 deg F

**Decomposition Temperature:** Not available.

**Solubility:** 19.6 % in water

**Specific Gravity/Density:** 1.8

**Molecular Formula:** CrKSS2O8.12H2O

**Molecular Weight:** 556.9495

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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, heat.

**Hazardous Decomposition Products:** Oxides of sulfur, chromium fumes.

**Hazardous Polymerization:** Has not been reported

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**Section 11 - Toxicological Information**
RTECS#: 
CAS# 7788-99-0: GB6850000
LD50/LC50:
Not available.

Carcinogenicity:
CAS# 7788-99-0:
ACGIH: A4 - Not Classifiable as a Human Carcinogen (listed as Chromium).
IARC: Group 3 carcinogen (listed as Chromium).
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: Mutation data reported.
Other Studies: Experimental tumorigenic dat reported.

Section 12 - Ecological Information

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

<table>
<thead>
<tr>
<th>US DOT</th>
<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
<th>Canada TDG</th>
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</thead>
<tbody>
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<td>No information available.</td>
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<tr>
<td>Hazard Class:</td>
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<td>UN Number:</td>
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<tr>
<td>Packing Group:</td>
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Section 15 - Regulatory Information

US FEDERAL

TSCA

http://avogadro.chem.iastate.edu/MSDS/CrK(SO4)2.htm
CAS# 7788-99-0 is not on the TSCA Inventory. It is a hydride and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).

**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 # 7788-99-0: acute, chronic.

**Section 313**
This material contains Chromium (III) Potassium Sulfate Dodecahydrate (listed as Chromium), 100%, (CAS# 7788-99-0) 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# 7788-99-0 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:**
XI

**Risk Phrases:**
R 36/38 Irritating to eyes and skin.

**Safety Phrases:**
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 28 After contact with skin, wash immediately with...

**WGK (Water Danger/Protection)**
CAS# 7788-99-0: No information available.

**Canada - DSL/NDSL**
None of the chemicals in this product are listed on the DSL or NDSL list. **Canada - WHMIS**
This product has a WHMIS classification of D2B.
Canadian Ingredient Disclosure List
CAS# 7788-99-0 (listed as Chromium) is listed on the Canadian Ingredient Disclosure List.

Exposure Limits
CAS# 7788-99-0 (listed as chromium): OEL-ARAB Republic of Egypt:TWA 0.
05 mg/m3 OEL-AUSTRALIA:TWA 0.05 mg/m3 OEL-BELGIUM:TWA 0.5 mg/m3 OEL-
-DENMARK:TWA 0.5 mg/m3 OEL-FINLAND:TWA 0.01 mg/m3 OEL-FRANCE:TWA 0.5
mg/m3 OEL-JAPAN:TWA 0.5 mg/m3 OEL-THE NETHERLANDS:TWA 0.5 mg/m3 OEL-
-THE PHILIPPINES:TWA 1 mg/m3 OEL-SWEDEN:TWA 0.5 mg/m3 OEL-UNITED KI
NGDOM:TWA 0.5 mg/m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check AC
GIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 11/04/1998
Revision #2 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.