Material Safety Data Sheet
Magnesium Sulfate Heptahydrate

ACC# 13525

Section 1 - Chemical Product and Company Identification

MSDS Name: Magnesium Sulfate Heptahydrate
Synonyms: Magnesium Sulfate heptahydrate; Sulfuric Acid, Magnesium Salt
Company Identification:
Fisher Scientific
1 Reagent Lane
Fairlawn, 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>10034-99-8</td>
<td>Magnesium sulfate Heptahydrate</td>
<td></td>
<td>unlisted</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification
EMERGENCY OVERVIEW

Appearance: transparent. Caution! The toxicological properties of this material have not been fully investigated. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: None.

Potential Health Effects

Eye: May cause mild eye irritation. The toxicological properties of this material have not been fully investigated.
Skin: May cause skin irritation. The toxicological properties of this material have not been fully investigated.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.
Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.
Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. 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.
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: The use of Calcium gluconate to precipitate the oxalate should be determined by only qualified medical personnel.

Section 5 - Firefighting 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. Material will not burn. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Extinguishing Media: Use agent most appropriate to extinguish fire. In case of fire use water spray, dry chemical, carbon dioxide, or appropriate foam.
Autoignition Temperature: Not available.
Flash Point: Not available. (estimated) Health: ; Flammability: ; Reactivity: Explosion Limits, Lower: Not available. Upper: Not available.
Section 6 - Accidental 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 or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. 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.

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>Magnesium sulfate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Heptahydrate</td>
<td></td>
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</tbody>
</table>

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

Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** transparent
Odor: odorless  
**pH**: Not available.  
**Vapor Pressure**: Not available.  
**Vapor Density**: Not available.  
**Evaporation Rate**:  
**Viscosity**: Not available.  
**Boiling Point**: Not applicable.  
**Freezing/Melting Point**: 1124 deg C  
**Decomposition Temperature**: 1124 deg C  
**Solubility**: Soluble in water.  
**Specific Gravity/Density**: 2.66  
**Molecular Formula**: MgSO4.7H2O  
**Molecular Weight**:

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**Section 10 - Stability and Reactivity**

**Chemical Stability**: Stable under normal temperatures and pressures.  
**Conditions to Avoid**: Incompatible materials.  
**Incompatibilities with Other Materials**: Oxidizing agents.  
**Hazardous Decomposition Products**: Irritating and toxic fumes and gases, sulfur oxides (SOx), including sulfur oxide and sulfur dioxide.  
**Hazardous Polymerization**: Has not been reported.

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**Section 11 - Toxicological Information**

RTECS#:  
CAS# 10034-99-8: OM4508000  
**LD50/LC50**: Not available.  
**Carcinogenicity**:  
CAS# 10034-99-8: 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 12 - Ecological Information**

**Ecotoxicity**: Not available.  
**Environmental Fate**: Not available.  
**Physical/Chemical**: Not available.  
**Other**: Not available.

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**Section 13 - Disposal Considerations**

Dispose of in a manner consistent with federal, state, and local
regulations.

**RCRA D-Series Maximum Concentration of Contaminants**: None listed.
**RCRA D-Series Chronic Toxicity Reference Levels**: None listed.
**RCRA F-Series**: None listed.
**RCRA P-Series**: None listed.
**RCRA U-Series**: None listed.

### Section 14 - Transport Information

<table>
<thead>
<tr>
<th>Shipping Name:</th>
<th>US DOT</th>
<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
<th>Canada TDG</th>
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</thead>
<tbody>
<tr>
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<tr>
<th>Hazard Class:</th>
<th>UN Number:</th>
<th>Packing Group:</th>
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### Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**

CAS#: 10034-99-8 is not on the TSCA Inventory. It is a hydrate 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.

**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# 10034-99-8 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:
S 37 Wear suitable gloves. S 45 In case of accident if you feel unwell, seek medical advice immediately (show the label where possible). S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)
CAS# 10034-99-8: 0

Canada

None of the chemicals in this product are listed on the DSL/NDSL list. This product has a WHMIS classification of Not controlled.

CAS# 10034-99-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 1/04/1995
Revision #5 Date: 7/13/1998
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 way 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.

Need help with a product? Send email to Fisher's customer service or call us at 1-800-766-7000.