



Material Safety Data Sheet  
Magnesium sulfate heptahydrate

MSDS# 13525

### Section 1 - Chemical Product and Company Identification

MSDS Name: Magnesium sulfate heptahydrate  
Catalog Numbers: AC124900000, AC124900010, AC124900025, AC124900100, AC124900250, AC213110000, AC213110000, AC213110025, AC213110250, AC213115000, AC423900000, AC423900250, AC423900250, AC423905000, BP213-1, M63-3, M63-50, M63-500, M67-3, M67-50, M6750LC, M80-212, M80-212LC, M80-50, M80-500, M82-212, M82-50, M82-500  
Synonyms: Sulfuric acid, magnesium salt (1:1), heptahydrate.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300

### Section 2 - Composition, Information on Ingredients

Risk Phrases:  
CAS#: 10034-99-8  
Chemical Name: Magnesium sulfate heptahydrate  
%: 98+  
EINECS#: unlisted  
Hazard Symbols:

Text for R-phrases: see Section 16

Hazard Symbols: None listed  
Risk Phrases: None listed

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Caution! The toxicological properties of this material have not been fully investigated. May cause eye, skin, and respiratory tract irritation. Target Organs: None known.

#### Potential Health Effects

Eye: May cause eye irritation.  
Skin: May cause skin irritation. May be harmful if absorbed through the skin.  
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.  
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.  
Chronic: No information found.

### Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.  
Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.  
Ingestion: Do not induce vomiting. Get medical aid if irritation or symptoms occur.  
Inhalation: Remove from exposure and move 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:

### 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. Material will not burn. Substance is noncombustible.

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

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: 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. Do not let this chemical enter the environment.

### Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Store in a tightly closed container.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Magnesium sulfate anhydrous	none listed	none listed	none listed
Magnesium sulfate heptahydrate	none listed	none listed	none listed

OSHA Vacated PELs: Magnesium sulfate anhydrous: None listed Magnesium sulfate heptahydrate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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 respirator use.

### Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white

Odor: odorless

pH: 5 - 8.2 (5% aq.sol.)

Vapor Pressure: < 0.1 mm Hg @ 20 deg C

Vapor Density: Not available  
Evaporation Rate: Not available  
Viscosity: Not available  
Boiling Point: Not available  
Freezing/Melting Point: Not available  
Decomposition Temperature:

Solubility in water: 710 g/L (20°C)  
Specific Gravity/Density: 1.678  
Molecular Formula: MgSO<sub>4</sub>·7H<sub>2</sub>O  
Molecular Weight: 246.48

#### Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.  
Conditions to Avoid: Incompatible materials, dust generation, excess heat.  
Incompatibilities with Other Materials: Strong oxidizing agents, explosive when heated with ethoxyethyl alcohols.  
Hazardous Decomposition Products: Sulfur oxides (SO<sub>x</sub>), including sulfur oxide and sulfur dioxide, oxides of magnesium.  
Hazardous Polymerization: Will not occur.

#### Section 11 - Toxicological Information

RTECS#: CAS# 7487-88-9: OM4500000  
CAS# 10034-99-8: OM4508000  
LD50/LC50: RTECS: Not available. RTECS: Not available.  
Carcinogenicity: Magnesium sulfate anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Magnesium sulfate heptahydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Other: See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Other: Do not empty into drains.

#### Section 13 - Disposal Considerations

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

#### Section 14 - Transport Information

##### US DOT

Shipping Name: Not Regulated  
Hazard Class:  
UN Number:  
Packing Group:  
Canada TDG  
Shipping Name: Not regulated as a hazardous material  
Hazard Class:  
UN Number:  
Packing Group:

#### Section 15 - Regulatory Information

##### 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# 7487-88-9: 0

CAS# 10034-99-8: 0

Canada

CAS# 7487-88-9 is listed on Canada's DSL List

CAS# 10034-99-8 is listed on Canada's DSL List

Canadian WHMIS Classifications: 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.

CAS# 7487-88-9 is not listed on Canada's Ingredient Disclosure List.

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

US Federal

TSCA

CAS# 7487-88-9 is listed on the TSCA Inventory.

CAS# 10034-99-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 7/14/1999

Revision #8 Date 7/20/2009

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 the company 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 the company has been advised of the possibility of such damages.

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**REVIEWED**

DATE: May 4/2012

*Chickford*