Material Safety Data Sheet
Date Printed: 06/17/2000
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Version 1.0

Section 1 - Product and Company Information

Product Name: MAGNESIUM SULFATE HEPTAHYDRATE, 98+%, A.C.S. REAGENT
Product Number: 230391
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: St. Louis, MO, 63103, US
Technical Phone: 314 771 5765
Fax: 800 325 5052
Emergency Phone: 414 273 3850 Ext.5996

Section 2 - Composition/Information on Ingredient

Substance Name: MAGNESIUM SULFATE HEPTAHYDRATE
CAS #: 10034-99-8
SARA 313: No
Formula: MgO4S
Synonyms: Sulfuric acid, magnesium salt (1:1), heptahydrate

Section 3 - Hazards Identification

Emergency Overview
Caution: Avoid contact and inhalation. Target organ(s): Central nervous system. G.I. System.

HMIS Rating
Health: 1  Flammability: 0  Reactivity: 1

NFPA Ratings
Flammability: 0  Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.
Section 5 - Fire Fighting Measures

Autoignition Temp: N/A
Extinguishing Media
  Suitable
  Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

Flammability: N/A

Firefighting
  Protective Equipment
  Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
  Specific Hazard(s)
  Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)
  Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
  Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
  User Exposure
  Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
  Suitable
  Keep tightly closed. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

Engineering Controls
  Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment
  Respiratory
  NIOSH/MSHA-approved respirator.
  Hand
  Rubber gloves.
  Eye
  Chemical safety goggles.

General Hygiene Measures
  Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9 - Physical/Chemical Properties

Appearance
  Color
  White
  Form
  Fine crystals
Molecular Weight: 246.48 AMU

**Property** | **Value** | **At Temperature or Pressure**
---|---|---
pH | 5.0 - 8.0 |  
BP/BP Range | N/A |  
MP/MP Range | N/A |  
Freezing Point | N/A |  
Vapor Pressure | < 0.1 mmHg | 20 °C  
Vapor Density | < 0.01 g/l |  
Saturated Vapor Conc. | N/A |  
SG/Density | 1.67 g/cm³ |  
Bulk Density | N/A |  
Odor Threshold | N/A |  
Volatile% | N/A |  
VOC Content | N/A |  
Water Content | N/A |  
Solvent Content | N/A |  
Evaporation Rate | N/A |  
Viscosity | N/A |  
Partition Coefficient | N/A |  
Decomposition Temp. | N/A |  
Flash Point °F | N/A |  
Flash Point °C | N/A |  
Explosion Limits | N/A |  
Autoignition Temp | N/A |  
Solubility

Solubility in Water: 1 M in H₂O; 20 °C, complete, colorless

**Section 10 - Stability and Reactivity**

Stability

- Stable
- Stable.

Materials to Avoid

- Strong oxidizing agents.

Hazardous Decomposition Products

- Hazardous Decomposition Products
- Sulfur oxides.

Hazardous Polymerization

- Hazardous Polymerization
- Will not occur.

**Section 11 - Toxicological Information**

Route of Exposure

- Skin Contact
  - May cause skin irritation.
- Eye Contact
  - May cause eye irritation.
- Inhalation
  - Material may be irritating to mucous membranes and upper respiratory tract.
Multiple Routes
May be harmful by inhalation, ingestion, or skin absorption.

Target Organ(s) or System(s)
Central nervous system. G.I. System.

Signs and Symptoms of Exposure
Can cause CNS depression. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: OM4508000

Toxicity Data
Intraduodenal - Woman: 5344 MG/KG (LDLO)

Section 12 - Ecological Information

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Proper Shipping Name: None
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

US Classification and Label Text
US Statements
Caution: Avoid contact and inhalation. Target organ(s): Central nervous system. G.I. System.

United States Regulatory Information
SARA 313 Listed: No

Section 16 - Other Information

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 1999 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.