



SIGMA-ALDRICH

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

| <u>Substance Name</u> | <u>CAS #</u> | <u>SARA 313</u> |
|--------------------------------|---|-----------------|
| MAGNESIUM SULFATE HEPTAHYDRATE | 10034-99-8 | 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 **Flammability:** N/A

Extinguishing Media
Suitable

Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

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

| <u>Property</u> | <u>Value</u> | <u>At Temperature or Pressure</u> |
|-----------------------|---|-----------------------------------|
| 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/cm ³ | |
| 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 H ₂ O, 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.