

MATERIAL SAFETY DATA SHEET

Magnesium Sulfate Anhydrous

SECTION 1 . Product and Company Identification

Product Name and Synonym: Magnesium Sulfate Anhydrous
Product Code: M0399
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020
Entry Date : 6/11/2013
Print Date: 6/11/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

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|-------------------|--------|--------------------|------|---------|
| Health: | 1 | | | |
| Flammability: | 0 | | | |
| Reactivity: | 0 | | | |
| Hazard Rating: | | | | |
| Least | Slight | Moderate | High | Extreme |
| 0 | 1 | 2 | 3 | 4 |
| NA=Not Applicable | | NE=Not Established | | |

SECTION 2 HAZARD IDENTIFICATION

Harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Solid. [Crystals or powder.]
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

CAUTION!
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

Avoid contact with eyes, skin or clothing.
Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:
Inhalation. Ingestion.

Potential acute health effects:

Eyes: May cause eye irritation
Skin: May cause skin irritation
Inhalation: May cause respiratory irritation.
Ingestion: Ingestion may cause gastrointestinal irritation and diarrhea.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.
Medical conditions aggravated by over-exposure: None known

SECTION 3 MIXTURE COMPONENTS

| SARA 313 | Component | CAS Number | Percent Comp. | Dimension | Exposure Limits |
|--------------------------|-----------------------------|----------------|---------------|-----------|------------------|
| <input type="checkbox"/> | Magnesium Sulfate Anhydrous | CAS# 7487-88-9 | 100 % | W/W | None established |

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SECTION 4 FIRST AID MEASURES

Harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Water spray, Carbon dioxide, dry chemical, powder, foam.

Fire / Explosion Hazards: Negligible fire hazard in dust form when exposed to heat or flame

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Where appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 HANDLING AND STORAGE

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH approved dust mask

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Gloves to prevent skin exposure as rubber or vinyl

Eye Protection: Safety Glasses w/
Side Shields

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Other Protective Equipment:

Wear appropriate clothing to prevent skin exposure

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended:

safety glasses with side-shields,

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended:

lab coat and gloves

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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|----------------------|-----------------------|-----------------------------|----------------|
| Melting Point: | 1124 Deg C dec. | Percent Volatile by Volume: | 0 |
| Boiling Point: | NA | Evaporation Rate | 0 |
| Vapor Pressure: | NA | Evaporation Standard | |
| Vapor Density: | NA | Auto Ignition Temp | Not applicable |
| Solubility in Water: | 26 % @0c anhydrous | Lower Flamm. Limit in Air | NA |
| Appearance /Odors: | white, no odor | Upper Flamm. Limit in Air | NA |
| Flash Point: | Not applicable | | |
| Specific Gravity: | 2.7 | | |

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Magnesium Sulfate Anhydrous

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| Stability: | Stable |
| Conditions to Avoid: | Heat |
| Materials to Avoid: | Ethoxyethyl alcohol |
| Hazardous Decomposition Products: | May release toxic fumes of sulfur. |
| Hazardous polymerization: | Will Not Occur |
| Conditions to Avoid: | None known |

SECTION 11 Toxicological Information

Magnesium Sulfate

LD50 Subcutaneous Rat 1200 mg/kg
TDLo Oral Rat 1 g/kg

Carcinogenic effects: No known significant effects or critical hazards.
Mutagenic effects: No known significant effects or critical hazards.
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

SECTION 12 Ecological Information

Magnesium Sulfate

Acute EC50 343.56 mg/L Daphnia 48 hours
Acute EC50 343560 to 417300 ug/L Fresh water Daphnia - Water flea - Daphnia magna 48 hours
Acute LC50 2820 mg/L Fish 96 hours
Acute LC50 1770000 to 1770000 ug/L Fresh water Daphnia - Water flea - Ceriodaphnia dubia - <24 hours 48 hours
Acute LC50 929 mg/L Fresh water Daphnia - Water flea - Daphnia magna 48 hours
Acute LC50 3100000 ug/L Fresh water Fish - Western mosquitofish - Gambusia affinis - Adult 96 hours
Acute LC50 2820000 to 3080000 ug/L Fresh water Fish - Fathead minnow - Pimephales promelas - 1 to 7 days - 96 hours
Acute LC50 1820000 to 2330000 ug/L Fresh water Daphnia - Water flea - Daphnia magna - <24 hours 48 hours

Environmental effects : No known significant effects or critical hazards.
Other adverse effects : No known significant effects or critical hazards.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 Transport Information

DOT Classification: Not Regulated

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

HCS Classification:
Irritating material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

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SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notifications: No products were found.
SARA 302/304/311/312 hazardous chemicals: Magnesium Sulfate
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Magnesium Sulfate
Immediate (acute) health hazard,
Clean Water Act (CWA) 307: No products were found
Clean Water Act (CWA) 311: No products were found
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : not listed
(essential Chemicals)

Canada
WHMIS (Canada) : Not controlled under WHMIS (Canada).
Canadian lists :
CEPA Toxic Substance: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is not listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.
CEPA DSL/ CEPA NDSL : CEPA DSL:
This material is listed or exempted
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16 Additional Information

Flammability

Health

Reactivity

Revisions **NFPA**

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The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.