

# Material Safety Data Sheet

Magnesium sulfate hydrate extra pure,DAC



## Section 1. Product and Company Identification

**Product name** : Magnesium sulfate hydrate extra pure,DAC  
**Product code** : 1.05885  
**Synonym** : None.  
**Material uses** : Industrial applications: Nutrition.  
Pharmaceutical industry: Pharmaceuticals.  
Other non-specified industry: Analytical reagent.  
**Manufacturer** : EMD Chemicals Inc.  
P.O. Box 70  
480 Democrat Road  
Gibbstown, NJ 08027  
856-423-6300 Technical Service  
Monday - Friday: 8:00 - 5:00 PM  
**Validation date** : 6/26/2006.  
**Print date** :  
**In case of emergency** : 800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week

## Section 2. Hazards Identification

**Physical state** : Solid. (Crystals)  
**Odor** : Odorless.  
**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  
**Emergency overview** : CAUTION!  
Handle with care in keeping with safe laboratory practices.  
**Routes of entry** : Dermal contact. Eye contact. Ingestion.  
**Potential acute health effects**  
**Eyes** : No known significant effects or critical hazards.  
**Skin** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.  
**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.  
See toxicological information (section 11)

## Section 3. Composition/Information on Ingredients

### United States

Name	CAS number	% by Weight
Magnesium Sulfate, Hydrate	22189-08-8	100

## Section 4. First Aid Measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Skin contact</b>	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Inhalation</b>	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Ingestion</b>	: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Protection of first-aiders</b>	: No action shall be taken involving any personal risk or without suitable training.

## Section 5. Fire Fighting Measures

<b>Flammability of the product</b>	: No specific hazard.
<b>Products of combustion</b>	: Decomposition products: Toxic fumes of sulfur oxides.
<b>Extinguishing media</b>	
<b>Suitable</b>	: Use an extinguishing agent suitable for the surrounding fire.
<b>Not suitable</b>	: None known.
<b>Special exposure hazards</b>	: Not available.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>Special remarks on fire hazards</b>	: Development of hazardous combustion gases or vapors possible in the event of fire.

## Section 6. Accidental Release Measures

<b>Personal precautions</b>	: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
<b>Environmental precautions</b>	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Methods for cleaning up</b>	: If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

## Section 7. Handling and Storage

<b>Handling</b>	: Wash thoroughly after handling.
<b>Storage</b>	: Keep container tightly closed. Keep container in a cool, well-ventilated area.

## Section 8. Exposure Controls/Personal Protection

Consult local authorities for acceptable exposure limits.

<b>Engineering measures</b>	: No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
<b>Personal protection</b>	
<b>Eyes</b>	: 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.

<b>Skin</b>	Recommended: safety glasses with side-shields : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory</b>	Body: Recommended: lab coat , gloves : Use a properly fitted, particulate filter 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.
<b>Hands</b>	: 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.
<b>Hygiene measures</b>	: 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.

## Section 9. Physical and Chemical Properties

<b>Physical state</b>	: Solid. (Crystals)
<b>Color</b>	: Colorless.
<b>Odor</b>	: Odorless.
<b>Molecular weight</b>	: 120.37 g/mole
<b>Molecular formula</b>	: MgSO <sub>4</sub> X H <sub>2</sub> O
<b>Boiling/condensation point</b>	: 200°C (392°F)
<b>Melting/freezing point</b>	: Decomposition temperature: >150°C (302°F)
<b>Vapor density</b>	: >1 (Air = 1)
<b>Evaporation rate</b>	: <1

## Section 10. Stability and Reactivity

<b>Stability and reactivity</b>	: The product is stable.
<b>Conditions of instability</b>	: Heating.
<b>Incompatibility with various substances</b>	: Reactive or incompatible with the following materials: acids and alkalis. Avoid excessive heat.
<b>Hazardous decomposition products</b>	: These products are sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> etc.)
<b>Hazardous polymerization</b>	: Will not occur.

## Section 11. Toxicological Information

<b>Toxicity data</b>	
<b>Other toxic effects on humans</b>	: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).
<b>Specific effects</b>	
<b>Carcinogenic effects</b>	: No known significant effects or critical hazards.
<b>Mutagenic effects</b>	: No known significant effects or critical hazards.
<b>Teratogenicity / Reproductive toxicity</b>	: No known significant effects or critical hazards.
<b>Sensitization</b>	
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Eyes</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.

## Section 12. Ecological Information

- Environmental precautions** : No known significant effects or critical hazards.
- Products of degradation** : These products are sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub> etc.). Some metallic oxides.
- Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.

## Section 13. Disposal Considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below 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 proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
DOT Classification	Not available.	Not available.	Not available.	-	-	Not available.

PG\* : Packing group

## Section 15. Regulatory Information

### United States

- HCS Classification** : Not regulated.
- U.S. Federal regulations** : TSCA 8(b) inventory: Listed
- SARA 302/304/311/312 extremely hazardous substances: No products were found.  
 SARA 302/304 emergency planning and notification: No products were found.  
 SARA 302/304/311/312 hazardous chemicals: No products were found.  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
 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 substances: No products were found.  
 Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

- State regulations** : New Jersey: Magnesium Sulfate, Hydrate

### Canada

- WHMIS (Canada)** : Not controlled under WHMIS (Canada).
- CEPA DSL/CEPA NDSL** : CEPA DSL: Magnesium Sulfate, Hydrate

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

### EU regulations

- Risk phrases** : This product is not classified according to EU legislation.

### International regulations

- International lists** : Japan (METI): Magnesium Sulfate, Hydrate
- Philippines (RA6969): Magnesium Sulfate, Hydrate

## Section 16. Other Information

**Label requirements** : CAUTION!

Handle with care in keeping with safe laboratory practices.

<b>National Fire</b>	:	0	<b>Flammability</b>
<b>Protection</b>		1	0 <b>Instability</b>
<b>Association (U.S.A.)</b>			<b>Special</b>

**Notice to reader**

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