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SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 02/02/2006
Date Updated: 06/11/2004
Version 1.80

Section 1 - Product and Company Information

Product Name	Magnesium chloride anhydrous		
Product Number	M8266		
Brand	Sigma Chemical		
Company	Sigma-Aldrich		
Street Address	3050 Spruce Street		
City, State, Zip, Country	SAINT LOUIS, MO 63103 US		
Technical Phone:	800-325-5832	Emergency Phone:	314-776-6555
Fax:	800-325-5052		

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
MAGNESIUM CHLORIDE ANHYDROUS	7786-30-3	No	232-094-6	
Formula	MgCl2			
Synonyms	DUS-top			

Section 3 - Hazards Identification

Emergency Overview

Caution: Avoid contact and inhalation. Target organ(s): Central nervous system. Kidneys.

HMIS Rating

Health: 1* Flammability: 0 Reactivity: 1

NFPA Rating

Health: 1 Flammability: 0 Reactivity: 1

*additional chronic hazards present.

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 breathing becomes difficult, call a physician.

Dermal Exposure

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

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media

Suitable

Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

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

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 inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Store under nitrogen.

Special Requirements

Store under inert gas. Hygroscopic.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Respiratory

Wear dust mask.

Hand

Protective gloves.

Eye

Chemical safety goggles.

General Hygiene Measures
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance		
Physical State	Color	Odor
Solid	White	Odorless

Molecular Weight: 9,522 AMU

pH	N/A
BP/BP Range	N/A
MP/MP Range	714 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	232 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

Flammability	N/A
Autoignition Temp	N/A
Solubility	
Solubility in Water:	Soluble.

N/A = not available

Section 10 - Stability and Reactivity

Stability

Stable
Stable.

Reactions to Avoid

When mixed with limited amount of water enough heat may be generated to cause frothing.

Conditions to Avoid

Protect from moisture.

Materials to Avoid

Strong oxidizing agents.

Hazardous Decomposition Products

Hazardous Decomposition Products
Hydrogen chloride gas, Magnesium oxide.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

May cause skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

May cause eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Target Organ(s) or System(s)

Central nervous system; Kidneys; G.I. System.

Signs and Symptoms of Exposure

Can cause CNS depression. Exposure can cause: Stomach pains, vomiting, diarrhea. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: OM2800000

Toxicity Data

Oral - Rat: 2.800 mg/kg (LD50)

Remarks: Behavioral: Convulsions or effect on seizure threshold.

Cardiac: Other changes.

Lungs, Thorax, or Respiration: Other changes.

Oral - Mouse: 4.700 mg/kg (LD50)

Intraperitoneal - Mouse: 342 MG/KG (LD50)

Intravenous - Mouse: 14 MG/KG (LD50)

Intramuscular - Mammal: 1 GM/KG (LD50)

Chronic Exposure - Mutagen

Species	Dose	Cell Type	Mutation test
Human	20 MMOL/L	fibroblast	DNA damage
Human	2 MMOL/L	HeLa cell	Cytogenetic analysis
Rat	2500 UMOL/KG	Intraperitoneal	Unscheduled DNA synthesis
Mouse	4 MMOL/L	Ascites tumor	Other mutation test systems

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
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

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification

Safety Statements S: 22 24/25

Do not breathe dust. Avoid contact with skin and eyes.

US Classification and Label Text**US Statements**

Caution: Avoid contact and inhalation. Target organ(s): Central nervous system. Kidneys.

United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information**WHMIS Classification**

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.

DSL: Yes

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. 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 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.