



MATERIAL SAFETY DATA SHEET

80 Northwest Blvd.
Nashua, NH 03063
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MSDS No.: MM0050
Effective Date: January 12, 2007

MM0049

Scientific

24 HOUR EMERGENCY ASSISTANCE

SECTION I	NAME
Product	Magnesium Chloride
Chemical Synonyms	Magnesium Chloride, Hexahydrate
Formula	MgCl ₂ ·6H ₂ O
Unit Size	up to 2.5 Kg.
C.A.S. No.	7791-18-6

0

1

0

1

CHEMTREC
800-424-9300
Day 585-226-6177

1

0

0

1

NFPA

0

1

2

3

4

HAZARD RATING
MINIMAL SLIGHT MODERATE SERIOUS SEVERE

Health

1

Fire

0

Reactivity

1

HMIS *

SEVERE

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Magnesium chloride, hexahydrate	100%	None established.

CAUTION! HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION.

SECTION III PHYSICAL DATA

Melting Point (°F)	Decomposes @ 118°C	Specific Gravity (H ₂ O = 1)	1.56
Boiling Point (°F)	N/A	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	Negligible.	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	1.67 g/g @ 20°C.		

Appearance & Odor Colorless or white crystalline powder, flakes; no odor. Deliquescent.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
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Extinguisher Media Use any media suitable for extinguishing supporting fire.

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved, self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may cause production of hazardous decomposition products.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor *essentially similar* to form OSHA-20

SECTION V

HEALTH HAZARD DATA

MM0050

Threshold Limited Value

None established. (ACGIH 2001).

RTEC No. CM297/5000 Toxicity Data: Oral-rat LD50 8100 mg/kg.

Effects of Overexposure

Ingestion may cause slight to moderate systemic toxicity. Effects include central nervous system depression, loss of reflexes and respiratory failure. May cause irritation to skin and eyes. Inhalation may cause nasal and respiratory irritation. Target organs: Central nervous system.

Emergency and First Aid Procedures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid
		X	Water of crystallization driven off at 160°C. Hydrogen chloride driven off at 118°C.

Incompatibility (Materials to Avoid)

Strong oxidizing agents, basic or alkaline materials. Solutions can be aggressively corrosive to metals.

Hazardous Decomposition Products

Emits Magnesium oxide and Hydrogen chloride at elevated temperatures.

Hazardous Polymerization Conditions to Avoid

May Occur	Will Not Occur
	X

Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Recover for use if not contaminated. Sweep up and place in suitable container for proper disposal. Wash spill area with soap and water.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Uncontaminated material may be disposed of in a sanitary landfill or flush to sewer with copious amounts of water.

SECTION VIII

SPECIAL PROTECTION INFORMATION

Respiration Protection None needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

Ventilation	Local Exhaust	Mechanical (General)	Recommended	Special	Other	No.
			None needed.			No.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment Goggles, smock, apron, eye wash station, proper gloves, ventilation hood.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Store in a cool, dry place. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Magnesium Chloride hexahydrate is hygroscopic. Keep in tightly sealed container to avoid moisture pick-up. Also releases heat when dissolved in water (90BTU/1 g). Remove and wash contaminated clothing.

Revision No.	7	Date	01/12/07	Approved	James A. Bertsch	Chemical Safety Coordinator	JAB
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