



P O Box 1460, Hayden, ID 83835-1460 ♦ 800-952-6457

SAFETY DATA SHEET

DUST DEVIL - MAGNESIUM CHLORIDE AQUEOUS SOLUTION

1. Product and Company Identification

Common Name: Dust Devil - Magnesium Chloride
Chemical Name: **Magnesium Chloride Aqueous Solution**
Product Use: Dust suppression, deicing, general industrial and specialty uses
Manufacturer: Lyman Dust Control, Inc.
P O Box 1460
Hayden, ID 83835-1460
1-800-952-6457
www.lymandustcontrol.com

2. Hazards Identification

Emergency overview Contact may cause eye irritation.
This MSDS has been compiled as a response to customer requests to address the safe handling of dust devil - magnesium chloride aqueous solution.
This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential short term health effects

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	May cause irritation.
Skin	Non-irritating to the skin.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Eyes. Respiratory system.
Chronic effects	None known.
Signs and symptoms	Symptoms of overexposure may be headaches, dizziness, tiredness, nausea and vomiting.

OSHA Regulatory Status This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential environmental effects See section 12.

3. Composition / Information on Ingredients

Ingredients	CAS Number	Percent
Magnesium Chloride	7786-30-3	15-40

4. First Aid Measures

First aid procedures

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Skin Contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Eye Contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

Ingestion Do not induce vomiting. Obtain medical attention. Never give anything by mouth if victim is unconscious.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties Not flammable by WHMIS/OSHA criteria.

Extinguishing media

Suitable extinguishing media Treat for surrounding material.

Unsuitable extinguishing Not available.

Protection of firefighters

Specific hazards arising from the chemical Not available.

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products May include and are not limited to: Halogenated compounds. Hydrogen chloride.

Explosion data

Sensitivity to mechanical Not available.

Sensitivity to static discharge Not available.

6. Accidental Release Measures

Personal precautions Avoid inhalation of vapors or mists. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material.

Environmental precautions Prevent entry into waterways, sewers, basements or confined spaces.

Methods for containment Stop leak if you can do so without risk.

Methods for cleaning up Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labeled containers. Finish cleaning by spreading water on the affected surface and dispose of according to local and regional authority requirements.

7. Handling and Storage

Handling Use good industrial hygiene practices in handling this material. Avoid breathing vapors or mists of this product.

Storage Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)

Magnesium chloride

Exposure Limits

ACGIH-TLV

Not established

OSHA-PEL

Not established

Engineering controls

TWA PEL: No specific limits have been established for magnesium chloride (a soluble substance). As a guideline, OSHA (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates Not Otherwise Regulated (PNOR): 5 mg/cu.m. Respirable Dust 8-Hour TWA PEL, 15 mg/cu.m. Total Dust 8-Hour TWA PEL.

TWA TLV: No specific limits have been established for magnesium chloride (a soluble substance). As a guideline, ACGIH (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates (insolubles) Not Otherwise Classified (PNOC): 10 mg/cu.m. Inhalable Particulate 8-Hours TWA TLV, 3 mg/cu.m. Respirable Particulate TWA TLV.

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne

levels below recommended exposure limits.

Personal protective equipment

Eye / face protection	Safety glasses
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guidelines levels may be exceeded, use an approved NIOSH respirator or NIOSH-approved filtering facepiece.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Liquid
Color	Colourless to light amber
Form	Liquid
Odor	Odorless
Odor threshold	Not available
Physical state	Liquid
pH	7 - 9 (5% solution)
Melting point	Not available
Freezing point	-1 °F (-18.33 °C) (30% solution, periodically mixed to ensure homogeneity)
Boiling point	224.99 °F (107.22 °C)
Pour point	Not available
Evaporation rate	Not available
Flash point	None
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	1.24 - 1.34 (H ₂ O = 1)
Octanol/water coefficient	Not available
Solubility (H₂O)	Easily soluble in cold water, hot water, methanol, acetone.
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	None known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizing agents. Acids.
Hazardous decomposition products	May include and are not limited to: Halogenated compounds. Hydrogen chloride.

11. Toxicological Information

Component analysis - LC50 Ingredient(s)	LC50
Magnesium chloride	Not available

Component analysis - LD50 Ingredient(s)	LD50
Magnesium Chloride	2800 mg/kg rat

Effects of acute exposure

Eye

May cause irritation.

Skin	Non-irritating to the skin.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity	May be harmful to freshwater aquatic species and to plants that are not saline tolerant.	
Ecotoxicity - Freshwater Algae - Acute Toxicity Data		
Magnesium chloride	7786-30-3	72 Hr EC50 <i>Desmodesmus subspicatus</i> : 2200 mg/L
Ecotoxicity - Freshwater Fish - Acute Toxicity Data		
Magnesium chloride	7786-30-3	96 Hr LC50 <i>Gambusia affinis</i> : 4210 mg/L [static]; 96 Hr LC50 <i>Pimephales promelas</i> : 1970-3880 mg/L [static]
Ecotoxicity - Water Flea - Acute Toxicity Data		
Magnesium chloride	7786-30-3	24 Hr EC50 <i>Daphnia magna</i> : 1400 mg/L; 48 Hr EC50 <i>Daphnia magna</i> : 140 mg/L [Static]
Persistence / degradability	Not available	
Bioaccumulation / accumulation	Not available	
Mobility in environmental media	Not available	
Environmental effects	Not available	
Aquatic toxicity	Not available	
Partition coefficient	Not available	
Chemical fate information	Not available	
Other adverse effects	Not available	

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
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WHMIS status Not Controlled

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical No

US Federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA (Superfund) reportable quantity None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard No, Delayed Hazard No, Fire Hazard No, Pressure Hazard No, Reactivity Hazard No, Section 302 extremely hazardous substance No, Section 311 extremely hazardous chemical No

Clean Air Act (CAA) Not available.

Clean Water Act (CWA) Not available.

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Inventory name

Table with 3 columns: Country(s) or region, Inventory name, On inventory (yes/no) *. Rows include Canada (Domestic/Non-Domestic Substances List), and United States & Puerto Rico (Toxic Substances Control Act).

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA table with 2 columns: Hazard level (Severe, Serious, Moderate, Slight, Minimal) and corresponding number (4, 3, 2, 1, 0).

Health hazard table with 4 rows: Health (1), Flammability (0), Physical Hazard (0), Personal Protection (B).



Disclaimer:

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.