

Material Safety Data Sheet

Magnesium Chloride

SDS # : 006930-A
Revision Date: 2011-09-09
Version 1



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Magnesium Chloride

Synonyms Magnesium chloride, hexahydrate; Magnesium chloride, 6-hydrate, crystal

Supplier
FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103
General Information:
Phone: (215) 299-6000
E-Mail: msdsinfo@fmc.com

Emergency telephone number
For leak, fire, spill or accident emergencies, call:
+1 800.424.9300 (CHEMTREC - U.S.A.)
+1 703.527.3887 (CHEMTREC - Collect - All Other Countries),
Medical Emergencies:
(800) 331-3148 (U.S.A. & Canada)
+1 (651) 632-6793 (All Other Countries - Collect)

2. Hazards identification

Appearance colorless flakes, crystals

Physical State Solid

Odor odorless

Flammable properties None known

Potential health effects

Acute effects

Eyes May cause slight irritation.

Skin Substance may cause slight skin irritation.

Inhalation May cause irritation of respiratory tract.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. However, if elimination is blocked by bowel blockage or other reasons, CNS depression, lack of reflexes, hypocalcemia (deficiency of calcium in the blood) may occur.

Chronic effects No information available.

3. Composition/information on ingredients

Hazardous ingredients

Chemical Name	CAS-No	Weight %
Magnesium Chloride	7791-18-6	100

4. First aid measures

Eye contact	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
Ingestion	Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

5. Fire-fighting measures

Flammable properties None known

Special hazards arising from the substance or mixture

Sensitivity to Mechanical Impact not applicable
Sensitivity to Static Discharge not applicable

Extinguishing media

Suitable extinguishing media Water spray, Dry chemical, Alcohol-resistant foam, Carbon dioxide (CO₂).

Advice for fire-fighters

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus and full protective gear.

NFPA

Health Hazard	1
Flammability	0
Stability	0
Special Hazards	-

6. Accidental release measures

Personal precautions Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

Environmental precautions Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

Other For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. Handling and storage

Handling	Do not contaminate water, food or feed by storage or disposal.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Store in original container only.

8. Exposure controls/personal protection

Exposure guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Occupational exposure controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
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Personal protective equipment

Eye/face protection	When used according to use directions, no special eye protection is required. Handling during manufacture or in the event of an accidental release requires use of safety glasses or a face shield.
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Respiratory protection	Avoid breathing vapor or mist.
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Skin and body protection	Follow use directions. Avoid contact with skin and clothing.
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Hand protection	Protective gloves
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Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.
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9. Physical and chemical properties

Appearance	colorless flakes, crystals
Color	colorless
Physical State	Solid
Odor	odorless
pH	Neutral (5% in water)
Melting Point/Range	118 °C / 244
Freezing point	No information available
Boiling Point/Range	not applicable
Flash Point	not applicable
Evaporation rate	not applicable
Autoignition Temperature	not applicableE
Flammable properties	None known
Vapor pressure	not applicable
Vapor density	No information available
Specific Gravity	1.57
Relative density	No information available
Molecular Weight	203.3

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Water solubility 167g/100mL
Percent volatile No information available
Partition coefficient: not applicable
Viscosity No information available
Oxidizing properties not applicable

10. Stability and reactivity

Stability Conversion to oxychloride upon strong ignition. When heated to temperatures above 300°C, it emits toxic fumes of chlorine gas.

Conditions to avoid Heat, Moisture

Materials to avoid 2-Peroxy-carboxylic acid, Strong oxidizing agents

Hazardous decomposition products Thermal decomposition can lead to release of toxic/corrosive gases and vapors: Hydrochloric acid.

Hazardous polymerization Hazardous polymerization does not occur

11. Toxicological information

Eye contact Product dust may cause mechanical eye irritation.
Skin contact Substance may cause slight skin irritation.

LD50 Oral 8100 mg/kg (rat)

Chronic Toxicity - Other Ingredient(s)

Chronic Toxicity No information available

Carcinogenicity Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).

12. Ecological information

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Magnesium Chloride	2200 mg/L EC50 72 h (Desmodesmus subspicatus)	LC50 4210 mg/L Gambusia affinis 96 h LC50 1970-3880 mg/L Pimephales promelas 96 h		EC50 1400 mg/L 24 h EC50 140 mg/L 48 h

Environmental Fate

Persistence and degradability No information available.

13. Disposal considerations

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Waste disposal methods If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

Contaminated packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions

14. Transport information

DOT not regulated

TDG not regulated

ICAO/IATA not regulated

IMDG/IMO not regulated

15. Regulatory information

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

International Regulations

Mexico - Grade Slight risk, Grade 1

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class Non-controlled

