



## MATERIAL SAFETY DATA SHEET

### PRODUCT NAME: Magnesium Chloride Hexahydrate

#### 1. Production Information

**Common Name:** Magnesium Chloride Hexahydrate

**Supplier:** Premium Canada  
214 – 3121 Hill Road Winfield, BC V4V 1G1

**Manufacturer:** Premium Canada  
214-3121 Hill Road Winfield, BC V4V 1G1

**Product Name:** Freezgone Deicer Crystals

**Product Use:** Dust suppression, deicing, aqua-culture, general industrial and specialty uses.

#### 2. Composition, Information on Ingredients

<u>NAME</u>	<u>CAS#</u>	<u>Exposure Limits</u>
Magnesium Chloride Hexahydrate	7791-18-6	<p><b>TWA PEL:</b> No specific limits have been established for magnesium chloride (a soluble substances). As a guideline, OSHA (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particles Not Otherwise Regulated (PNOR): 5 mg/cu.m. Respirable Dust 8-Hour TWA PEL, 15mg.cu.m. Total Dust 8-Hour TWA PEL.</p> <p><b>TWA TLV:</b> No specific limits have been established for magnesium chloride (a soluble substances). As a guideline, ACGIH (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particles (insolubles) Not Otherwise Classified (PNOC): 10mg/cu.m. Inhalable Particulate TWA TLV, 3 mg/cu.m. Respirable Particulate TWA TLV.</p>

#### 3. Hazards Identification

**EMERGENCY OVERVIEW:** White crystalline solid.

May cause eye irritation.

**ROUTES OF ENTRY:** Absorbed through skin. Eye contact.

**POTENTIAL ACUTE HEALTH EFFECTS:**

**Eyes:** Slightly hazardous in case of eye contact (irritant).

**Skin:** Slightly hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, Scaling, reddening, or, occasionally, blistering.

**Inhalation:** Slightly hazardous in case of inhalation (lung irritant).

**Ingestion:** Not available.

**Potential Chronic Health Effects:** Carcinogenic Effects: Not classified or listed by IARC, NTP, OSHA, EU, and ACGIH.

Mutagenic: Not available.

Teratogenic Effects: Not available.

**Medical Conditions Aggravated by Overexposure:** Repeated or prolonged exposure is not known to aggravate Medical condition.

**Potential Environmental Effects:** May be harmful to freshwater aquatic species and to plants that are no saline tolerant.

**See Toxicological Information (Section 11)**

#### 4. First Aid Measures

**Eye Contact:** Check for and remove and contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Obtain medical attention if irritation persists.

**Skin Contact:** Wash with soap and water. Cold water may be used. Obtain medical attention if irritation persists.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. Obtain medical attention if irritation persists.

**Ingestion:** Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Notes to Physician:** Not available.

#### 5. Fire Fighting Measures

**Flammability of the Products:** Non-Flammable.

**Autoignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not applicable.

**Fire Hazards in Presence of Various Substances:** Risk of explosion of the product in presence of mechanical impact. Not applicable. Risks of explosion of the product in presence of static discharge: Not applicable.

**Fire Fighting Media and Instructions:** Use an extinguishing agent suitable for surrounding fires.

**Protective Clothing (Fire):** Fire fighters should wear positive pressure self contained breathing (SCBA) and full turnout gear.

**Special Remarks in Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

#### 6. Accidental Release Measures

**Small Spill and Leak:** Use appropriate tool to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of According to local and regional authority requirements.

**Large Spill and Leak:** Use a shovel to put material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

#### 7. Handling and Storage

**Handling:** Avoid breathing dust. Avoid contact with incompatibles.

**Storage:** Keep container in a cool, well-ventilated area.

#### 8. Exposure Controls, Personal Protection

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contamination below the exposure limits.

**Personal Protection: Eyes: Safety glasses.**

**Body: Protective clothing may be worn in dusty area, but is generally not required.**

**Respiratory: NIOSH approved filtering face piece may be necessary.**

## 9. Physical and Chemical Properties

**Physical State and Appearance: White crystalline Solid.**

**Color: White**

**Odor: Odorless**

**Molecular Weight: 203.3 g/mole**

**Molecular Formula:  $MgCl_2 \cdot 6H_2O$**

**pH (5% Soln/Water): 9 to 10 [Basic.]**

**Boiling/Condensation Point: Not applicable.**

**Melting/Freezing Point: Begins losing water of hydration at 118°C (244.4°F).**

**Critical Temperature: Not available.**

**Specific Gravity: 1.569 (Water=1)**

**Vapor Pressure: 0.09 kPa (0.7 mmHG) (at 68°C)**

**Vapor Density: Not available.**

**Volatility: Not available.**

**Odor Threshold: Not available.**

**Evaporation Rate: Not available.**

**VOC: Not available.**

**Viscosity: Not available.**

**LogKow: Not available.**

**Solubility: Easy soluble in hot water. Soluble in cold water.**

## 10. Stability and Reactivity

**Stability and Reactivity: The product is stable.**

**Condition of Instability: Not available.**

**Incompatibility with Various Substances: Reactive with oxidizing agents, acids, metals in presence or moisture.**

**Hazardous Decomposition Products: These products are halogenated compounds, hydrogen chloride.**

**Hazardous Polymerization: Will not occur.**

## 11. Toxicological Information

**Toxicity to Animals: Acute oral toxicity (LD50): 2800 mg/kg [Rat].**

**Chronic Effects on Humans: Carcinogenic Effects. Not classified or listed by IARC, NTP, OSHA, EU, and ACGIH. May cause damage to the following organs: Eyes.**

**Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, or eye contact (irritant), of inhalation (lung irritant).**

**Special Remarks on Toxicity to Animals: Not available.**

**Special Remarks on Chronic Effects to Humans: Not available.**

**Special Remarks on Other Toxic Effects on Humans: Not available.**

## 12. Preparation Information

**Prepared by: Technical Services Department**

**Preparation Date: October, 2004**