



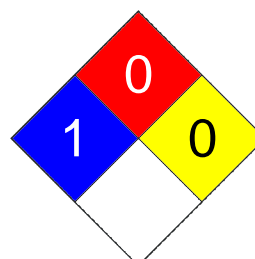
# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** FreezGard CI Plus  
**CAS #** Mixture  
**Product use** De-icer  
**Manufacturer** Great Salt Lake Minerals Corporation  
 A Compass Minerals Company  
 9900 West 109th Street, Suite 600  
 Overland Park, KS 66210 US  
 Phone: 913-344-9200  
**CHEMTREC** 1-800-424-9300  
**CANUTEC** 1-613-996-6666

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 1
Flammability	0
Physical Hazard	0
Personal Protection	B



## 2. Hazards Identification

**Emergency overview** CAUTION  
 Contact may cause eye and skin irritation.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** May cause irritation.

**Skin** May cause irritation.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** May cause stomach distress, nausea or vomiting.

**Target organs** Eyes. Skin.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Water	7732-18-5	40 - 70
Magnesium chloride, hexahydrate	7791-18-6	15 - 40
Corrosion Inhibitor Complex	Mixture	1 - 5

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

**Skin contact** Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

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

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by WHMIS/OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Hydrogen chloride. Chlorine gas. Oxides of magnesium.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<b>Personal precautions</b>	Follow standard industrial hygiene practices.
<b>Methods for containment</b>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Finish cleaning by spreading water on the affected surface and dispose of according to local and regional authority requirements. Never return spills in original containers for re-use.

## 7. Handling and Storage

<b>Handling</b>	Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Corrosion Inhibitor Complex	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Magnesium chloride, hexahydrate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Water	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
<b>Engineering controls</b>	General ventilation normally adequate.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear safety glasses with side shields.
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.

<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Normal use of this product is not expected to warrant the use of respiratory protection. Where exposure guidelines may be exceeded (enclosed, unventilated areas), use an approved NIOSH respirator.
<b>General hygiene considerations</b>	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

<b>Appearance</b>	Opaque.
<b>Color</b>	Light brown - Dark brown
<b>Form</b>	Liquid
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not Available
<b>Physical state</b>	Liquid
<b>pH</b>	7 - 9
<b>Melting point</b>	Not Applicable
<b>Freezing point</b>	A typical 30% solution has an approximative freeze point of -1°F (-18°C)
<b>Boiling point</b>	224.96 °F (107.2 °C)
<b>Pour point</b>	Not available
<b>Evaporation rate</b>	Not Available
<b>Flash point</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	Not Available
<b>Vapor density</b>	Not Available
<b>Specific gravity</b>	1.29 for a typical 30% solution
<b>Relative density</b>	Not Available
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H2O)</b>	Easily soluble in cold water, hot water, methanol, acetone.
<b>Viscosity</b>	Dilution may alter properties, affecting product performance
<b>Percent volatile</b>	Not available

## 10. Stability and Reactivity

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Oxidizers. Acids.
<b>Hazardous decomposition products</b>	May include and are not limited to: Hydrogen chloride. Chlorine gas. Oxides of magnesium.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Component analysis - LC50

<b>Ingredient(s)</b>	<b>LC50</b>
Corrosion Inhibitor Complex	Not available
Magnesium chloride, hexahydrate	Not available
Water	Not available

**Component analysis - Oral LD50**

<b>Ingredient(s)</b>	<b>LD50</b>
Corrosion Inhibitor Complex	Not available
Magnesium chloride, hexahydrate	8100 mg/kg rat
Water	14500 mg/kg rat

**Effects of acute exposure**

<b>Eye</b>	May cause irritation.
<b>Skin</b>	May cause irritation.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Sensitization</b>	Not classified or listed by IARC, NTP, OSHA and ACGIH.
<b>Chronic effects</b>	Not classified or listed by IARC, NTP, OSHA and ACGIH.
<b>Carcinogenicity</b>	Not classified or listed by IARC, NTP, OSHA and ACGIH.
<b>Mutagenicity</b>	Not classified or listed by IARC, NTP, OSHA and ACGIH.
<b>Reproductive effects</b>	Not classified or listed by IARC, NTP, OSHA and ACGIH.
<b>Teratogenicity</b>	Not classified or listed by IARC, NTP, OSHA and ACGIH.
<b>Synergistic Materials</b>	Not available

**12. Ecological Information**

<b>Ecotoxicity</b>	May be harmful to freshwater aquatic species and to plants that are not saline tolerant.
<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Persistence / degradability</b>	Not available
<b>Bioaccumulation / accumulation</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Chemical fate information</b>	Not available
<b>Other adverse effects</b>	Not available

**13. Disposal Considerations**

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

**14. Transport Information**

<b>U.S. Department of Transportation (DOT)</b>	Not regulated as dangerous goods.
<b>Transportation of Dangerous Goods (TDG - Canada)</b>	Not regulated as dangerous goods.

**15. Regulatory Information**

<b>Canadian federal regulations</b>	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.
<b>US Federal regulations</b>	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.  CERCLA/SARA Hazardous Substances - Not applicable.

**Occupational Safety and Health Administration (OSHA)**

29 CFR 1910.1200 hazardous chemical No

**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 hazardous chemical No

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Not available

WHMIS status Not Controlled

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**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

**16. Other Information**

**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. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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