



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

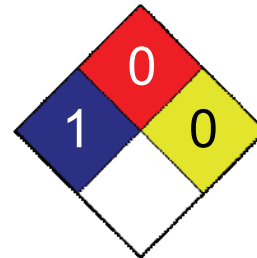
Product Name FreezGard CI Plus
CAS # Mixture
Product use De-icer.
Manufacturer Great Salt Lake Minerals Corporation
 9900 West 109th Street, Suite 600
 Overland Park, KS 66210 US
 Phone: 913-344-9300

Supplier North American Salt Company AND Sifto Canada, Inc
 9900 West 109th Street, Suite 600 6700 Century Ave., Suite 202
 Overland Park, KS 66210 US Mississauga, Ontario
 Phone: 913-344-9200 L5N 6A4, Canada
 Website: www.compassminerals.com Phone: 905-567-0231

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
MAY CAUSE EYE AND SKIN IRRITATION.

Potential short term health effects

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

Eyes May cause mechanical irritation.

Skin May cause mechanical irritation.

Inhalation May cause respiratory tract irritation.

Ingestion May cause stomach distress, nausea or vomiting.

Target organs Eyes. Respiratory system. 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

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. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
Notes to physician	Symptoms may be delayed.
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.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	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: Hydrogen chloride. Chlorine gas. Halogenated compounds.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	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.
Methods for containment	None necessary.
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, labelled 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.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits	Exposure Limits
Ingredient(s)	Exposure Limits
Magnesium chloride, hexahydrate	ACGIH-TLV Not established OSHA-PEL Not established
Water	ACGIH-TLV Not established OSHA-PEL Not established
Engineering controls	General ventilation normally adequate.

Personal protective equipment

Eye / face protection	Wear safety glasses with side shields.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
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 & Chemical Properties

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

10. Chemical Stability & Reactivity Information

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

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Magnesium chloride, hexahydrate	Not available
Water	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Magnesium chloride, hexahydrate	8100 mg/kg rat; 7600 mg/kg mouse
Water	14500 mg/kg rat
Effects of acute exposure	
Eye	May cause mechanical irritation.
Skin	May cause mechanical irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria. Not classified or listed by IARC, NTP, OSHA and ACGIH.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria. Not classified or listed by IARC, NTP, OSHA and ACGIH.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria. Not classified or listed by IARC, NTP, OSHA and ACGIH.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria. Not classified or listed by IARC, NTP, OSHA and ACGIH.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria. Not classified or listed by IARC, NTP, OSHA and ACGIH.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria. Not classified or listed by IARC, NTP, OSHA and ACGIH.

12. Ecological Information

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

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Department of Transportation (DOT)
Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG)
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.

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.
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

Safe Drinking Water Act (SDWA) Not available

Drug Enforcement Agency (DEA) Not available

Food and Drug Administration (FDA) 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	No

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.

Issue date 04-Sep-2007

Effective date 15-Sep-2007

Expiry date 15-Sep-2010

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