



**State of Oklahoma
Central Purchasing**

Awarded Vendor Information

Vendor Name: Scotwood Industries, Inc

Vendor ID#: 0000070826

Vendor Address: Address: 12980 Metcalf Ave Ste 240

City: Overland Park

State: KS

Zip Code: 66213

Contact Person Name: Jim Wilson

Phone #: 1- 913-851-3500

Title:

Fax #: 1- 913-851-3553

Email: biddesk@scotwoodindustries.com

Website: <http://www.scotwoodindustries.com>

Authorized Location: ☐ Locations list

☐ Address:

City:

State:

Zip Code:

Contract ID #: 3936

Delivery: FOB Destination

Minimum Order: 4,300 gallons 3-5 days delivery
ARO

P/Card Accepted: Yes

Other:



Scotwood Industries, Inc.

12980 Metcalf Avenue • Suite 240
Overland Park, Kansas 66213

Telephone: (913) 851-3500
(800) 844-2022
Fax: (913) 851-3377

November 14, 2014

Department of Central Services
Central Purchasing
2401 N. Lincoln Blvd., Suite 116
Oklahoma City, OK 73105

Scotwood Industries, Inc. is a distributor of FREEZGARD ZERO CI PLUS, which is manufactured by North American Salt.

PRE-WETTING APPLICATION RATES:

On-board units: 10 - 12 gals. per ton salt or salt/sand mix

Overhead spray unit: 8 - 10 gals. per ton salt or salt/sand mix

*** These are based on temperatures down to 5 - 10 degrees Fahrenheit. For temperatures of 4 to -10 degrees Fahrenheit, add 2 gallons per ton to these application rates.

ANTI-ICING APPLICATION RATES:

Pre-Storm Treatment: 15 - 30 gallons/lane mile (12 ft. wide)

***Whenever FREEZGARD ZERO CI PLUS is applied to snow pack, abrasives should always be used. Since each storm is different, application rates can vary depending upon:

1. if pre-storm treatment has been accomplished
2. if majority of accumulation has been plowed off
3. depth of snow needed to melt can vary from storm to storm.

NOTES: Anti-icing is the recommended method to prevent snow and ice from bonding to pavement and is an efficient use of FREEZGARD ZERO CI PLUS. When FREEZGARD ZERO CI PLUS is used to melt existing snow or snow pack from the top down, much more product is required than is needed to prevent ice bonding to pavement. Do not apply to roadways for anti-icing if temperatures are 40° F. and rising. If relative humidity is low, reduction of application rate is recommended. Use only very well calibrated equipment, preferably ground speed controlled, to insure correct and accurate application rates. When applying product for the first treatment in the fall or winter season, the presence of contaminants (oil, anti-freeze, dirt, etc.) can produce pavement slickness when anti-icers/de-icers are applied. Therefore, flushing the pavement to remove roadway contaminants and/or reducing application rate for first application may be prudent. The porosity of pavement (friction coefficient) can also be a factor contributing to the possibility of pavement slickness. Very smooth pavement can become slicker than more coarse, open, porous pavement. If pavement is very smooth, reducing application rates may be prudent. DO NOT OVER-APPLY!! Over-applying product is by far the most common cause of slickness on roadways after the application of anti-icers/de-icers. It is also recommended to keep records of equipment calibration, application rates on each road or street for each storm event. Employee training on proper calibration and use of anti-icing equipment is important.

STORAGE REQUIREMENTS:

1. Preferred tanks to store FREEZGARD ZERO CI PLUS are fiberglass or poly tanks.
2. FREEZGARD ZERO CI PLUS can be stored for extended periods of time at 0 (zero) degrees Fahrenheit without storage problems such as solids falling out of solution.
3. Agitation or circulation is recommended every 5-7 days during the winter season.

SCOTWOOD INDUSTRIES, INC.



12980 Metcalf Avenue, PH: 800-844-2022
Suite 240 FX: 913-851-3553
Overland Park, KS 66213 www.scotwoodindustries.com

FREEZING POINTS OF MAGNESIUM CHLORIDE

% MgCl ₂ by Weight	Specific Gravity 15.6°C(60°F)	Freezing Point °C	Freezing Point °F
6	1.071	-3.09	24.0
7	1.080	-4.72	22.5
8	1.089	-5.67	20.8
9	1.090	-6.67	19.0
10	1.106	-7.83	16.9
11	1.116	-9.05	14.7
12	1.125	-10.50	12.1
13	1.134	-12.10	9.3
14	1.143	-13.70	6.3
15	1.152	-15.90	3.0
16	1.162	-17.60	-0.4
17	1.171	-19.70	-4.5
18	1.181	-22.10	-8.7
19	1.190	-25.60	-13.2
20	1.200	-27.40	-18.2
21	1.210	-30.50	-23.0
22	1.220	-32.80	-27.0
23	1.230	-28.90	-20.0
24	1.240	-25.60	-14.0
25	1.250	-23.30	-10.0
26	1.261	-21.10	-6.0
27	1.271	-19.40	-3.0
28	1.282	-18.30	-1.0
29	1.293	-17.20	1.0
30	1.303	-16.70	3.0

Product Data Sheet



9900 West 109th Street – Suite 600
Overland Park, Kansas 66210
Phone 800-755-7258 Fax 800-359-7258

FREEZGARD® CI PLUS

PRODUCTION LOCATION

Ogden, Utah

PRODUCT DESCRIPTION

Produced naturally from the Great Salt Lake, FreezGard® CI Plus is specially formulated for deicing and anti-icing. It remains active (liquid) at cold temperatures while minimizing precipitates down to zero degrees Fahrenheit. FreezGard Zero is a tan to light amber liquid with a density of approximately 185 gallons per ton. A corrosion inhibitor has been added to reduce the corrosion rate.

CORROSION INHIBITOR

The CI Plus Corrosion inhibitor is a proprietary formulation that is optimized to significantly reduce metal corrosion in winter conditions.

PHYSICAL PROPERTIES

Specific Gravity	1.29 +/- 0.03
pH (5% Solution)	7 - 9
Weight	10.5 - 11.2 lbs./gallon

Typical Analysis			Typical	Range
Magnesium Chloride	MgCl ₂	(%)	30	29 - 31
Sulfate	SO ₄	(%)	0.8	0.2 - 1.0
Potassium	K	(%)	0.3	0.1 - 0.5
Calcium	Ca	(%)	0.2	0.1 - 0.3
Water	H ₂ O	(%)	67	65 - 69
CI Plus Inhibitor		(%)	2.0	1.8 - 2.2

METHOD OF ANALYSIS

All testing is from North American Salt's internal quality control procedures, which are available upon request.

APPLICATION AND STORAGE

This liquid MgCl₂ product in storage should be agitated regularly to minimize precipitation of undesirable solids/crystals. Application equipment should be washed daily with water. Storage equipment should be rinsed with water to prevent buildup of solids. Aluminum storage tanks or hauling equipment should not be grounded. Overapplication of MgCl₂ may result in unusually slippery road surfaces and should be avoided.



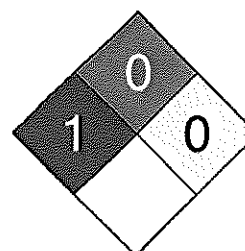
MATERIAL SAFETY DATA SHEET

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

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. Oxides of magnesium.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Follow standard industrial hygiene practices.
Methods for containment	Prevent entry into waterways, sewers, basements or confined areas.
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. Never return spills in original containers for re-use.

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	
Ingredient(s)	Exposure Limits

Corrosion Inhibitor Complex	ACGIH-TLV Not established OSHA-PEL Not established
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Magnesium chloride, hexahydrate	ACGIH-TLV Not established OSHA-PEL Not established
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Water	ACGIH-TLV Not established OSHA-PEL Not established
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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	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.
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	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 approximative freeze point of -1°F (-18°C)
Boiling point	224.96 °F (107.2 °C)
Pour point	Not available
Evaporation rate	Not Available
Flash point	Not available
Auto-ignition temperature	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.
Viscosity	Dilution may alter properties, affecting product performance
Percent volatile	Not available

10. Stability and Reactivity

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. Oxides of magnesium.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

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

Component analysis - Oral LD50

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

Effects of acute exposure

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

12. Ecological Information

Ecotoxicity	May be 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
Other adverse effects	Not available

13. Disposal Considerations

Waste codes	Not available
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.
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

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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Prepared by

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