



SAFETY DATA SHEET (SDS)

Section 1:		PRODUCT & COMPANY IDENTIFICATION	
Product Name		Twenty Below Zero, Ice Melter	
CAS #		7791-18-6, 7647-14-5, 010043-52-4	
Product Use		De-icer	
Manufacturer(s)	Blending/Bagging	Salt Depot Inc 5442 Wells Park Road West Jordan, Utah 84084 801-282-1250	
Supplier		Salt Depot Inc 5442 Wells Park Road West Jordan, Utah 84084 801-282-1250	
24 Hour Hotline		CHEMTREC 800-424-9300	
Section 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	Dusts of this product may cause irritation of the nose, throat, and respiratory tract.	
	Ingestion	May cause stomach distress, nausea or vomiting.	
Target Organs		Eyes. Skin. Respiratory system.	
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 skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.	
Section 3:		COMPOSITION / INFORMATION ON INGREDIENTS	
Ingredient(s)		CAS#	Percent
Magnesium Chloride		7791-18-6	1%
Sodium Chloride		7647-14-5	87%
Calcium Chloride		010043-52-4	11%
Potassium			1%
Acid Blue Liquid Colorant Blend (Xanthene and Triphenylmethane dyes)			
Section 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 & 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 1 to 2 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		None Available.	
Section 5:		FIRE FIGHTING MEASURES	
Flammable Properties		Not flammable by WHMIS/OSHA criteria.	
Flash Point & Method		N/A	
Flammable Limits		N/A	
Extinguishing Media			
	Suitable Extinguishing Media	Treat for surround material, water spray, dry chemicals, foam or carbon dioxide.	
	Unsuitable Extinguishing Media	N/A	

Section 5:	FIRE FIGHTING MEASURES, continued
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Protection of Firefighters													
Specific Hazards Arising from the Chemical	N/A												
Protective Equipment for Firefighters	Firefighters should wear full protective clothing, including self contained breathing apparatus.												
Unusual Fire & Explosion Hazards	None												
NFPA FIRE HAZARDS Health: 1 Fire: 0 Reactivity: 0 Specific: N/A		<table border="1"> <tr><td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">LEGEND</td><td>Minimal</td><td>0</td></tr> <tr><td>Slight</td><td>1</td></tr> <tr><td>Moderate</td><td>2</td></tr> <tr><td>Serious</td><td>3</td></tr> <tr><td>Severe</td><td>4</td></tr> </table>	LEGEND	Minimal	0	Slight	1	Moderate	2	Serious	3	Severe	4
LEGEND	Minimal	0											
	Slight	1											
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	Severe	4											

Section 6:	ACCIDENTAL RELEASE MEASURES
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Personal Precautions	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Methods of Containment	None necessary.
Methods for Cleaning Up	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. Discard containers except for storage and shipment of original product.

Section 7:	HANDLING & STORAGE
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Handling	Avoid breathing dusts from this material.
Storage	Keep out of reach of children. Keep containers tightly closed in a cool, well-ventilated place.

Section 8:	EXPOSURE CONTROLS / PERSONAL PROTECTION
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Exposure Limits	Exposure Limits
Ingredient(s)	ACGIH-TLV
Sodium Chloride	Not established
	OSAH-PEL
	Not established
Magnesium Chloride	ACGIH-TLV
	Not established
	OSAH-PEL
	Not established
Engineering Controls	TWA PEL: No specific limits have been established for magnesium chloride & sodium chloride (a soluble substance). As a guideline, OSHA has established the following limits which are generally recognized for inert or nuisance dust. Particulates not otherwise regulated (PNOR): 5mg/cu.m. Respirable dust 8-hr TWA PEL, 15mg/cu.m. Total dust 8-hr TWA PEL TWA TLV: No specific limits have been established for magnesium chloride & sodium chloride (a soluble substance). As a guideline, ACGIH has established the following limits which are generally recognized for inert or nuisance dust. Particulates not otherwise classified (PNOC): 10mg/cu.m. Respirable dust 8-hr TWA TLV, 15mg/cu.m. Total dust 8-hr TWA TLV Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limits.
Personal Protective Equipment	
Eye / Face Protection	Safety Glasses.
Hand Protection	Rubber gloves. Confirm with a reputable supplier first.
Skin & Body Protection	As required by employer code.
Respiratory Protection	Where exposure guideline may be exceeded, use an approved NIOSH respirator or NIOSH approved filtering facepiece.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks & immediately after handling product.

Section 9: PHYSICAL & CHEMICAL PROPERTIES	
Appearance	Crystalline
Color	Blue
Form	Crystalline
Odor	Slightly aromatic
Odor Threshold	Not available
Physical State	Solid
pH	6-8 neutral
Melting Point	800.9 C (1473.8 F)
Freezing Point	Not available
Boiling Point	1413 C (2575.4 F)
Flash Point	Not available
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor Pressure	0.1 kPa (1 mmhg)@865 C
Vapor Density	Not applicable
Specific Gravity	2.17 (H@) @20 C
Relative Density	2.17 g/cm3
Octanol/Water Coefficient	Not available
Solubility (H2O)	36g/100g H2O @ 20 C
Partition Coefficient	Not available
Auto-ignition Temperature	Not available
Percent Volatile	0% w/w
Molecular Weight	58.4400 g/mole
Molecular Formula	NaCl, MgC12.6H2O
Section 10: CHEMICAL STABILITY REACTIVITY INFORMATION	
Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	Do not mix with incompatible materials.
Incompatible Materials	Reactive with oxidizing agents, acids, metals in presence of moisture, lithium, bromine, trifluoride.
Hazardous Decomposition Products	May include and are not limited to: Halogenated compounds. Hydrogen chloride.
Possibility of Hazardous Reactions	
Section 11: TOXICOLOGICAL INFORMATION	
Component Analysis-LC50	
Ingredients	LC50
Magnesium Chloride	Not available
Sodium Chloride	>21000 mg/m3 rat
Component Analysis-Oral LD50	
Ingredients	LD50
Magnesium Chloride	8100 mg/kg rat; 7600 mg/kg mouse
Sodium Chloride	3000 mg/kg rat
Effects of Acute Exposure	
Eye	May cause irritation.
Skin	May cause irritation.
Inhalation	Dust of this product may cause irritation of the nose, throat, & respiratory tract.
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.
Section 12: ECOLOGICAL INFORMATION	
Ecotoxicity	May be harmful to freshwater aquatic species and to plants that are not tolerant.
Environmental Effects	Not available.
Aquatic Toxicity	Not available.
Persistence / Degradability	Not available.
Bioaccumulation / Accumulation	Not available.
Mobility in Environmental Media	Not available.
Chemical Fate Information	Not available.

Section 13:	DISPOSAL CONSIDERATIONS		
Waste codes	Not available.		
Disposal instruction	Waste must be disposed of in accordance with federal, state & local environmental controls.		
Wasteform Residues / Unused Products	Not available.		
Contaminated Packaging	Not available.		
Section 14:	TRANSPORTATION INFORMATION		
Department of Transportation (DOT)	Not regulated as dangerous goods		
Transportation of Dangerous Goods (TDG)	Not regulated as dangerous goods		
Section 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.		
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.		
Occupational Safety & Health Administration 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 Act (SDWA)	Not available.		
Drug Enforcement Agency (DEA)	Not available.		
Food and Drug Administration	Not available.		
WHMIS Status	Not controlled.		
State Regulations	This product does not contain any chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.		
Inventory Name	Country or Region	Inventory Name	On Inventory (yes/no)
	Canada	Domestic Substances List (DSL)	Yes
	Canada	Non-Domestic Substances List (NSDL)	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).			
Section 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 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.		
SDS Revision Date	15-Jul-2014		
Other Information	This SDS conforms to the ANSI Z400.1/Z129-2010 (Rev. 12/2012)		