#### MATERIAL SAFETY DATA SHEET



#### 1. Product and Company Identification

Product Name	Safe Step Pro Series 370 Econo Blend Blue	
CAS #	Mixture	
Product use	De-icer	
Manufacturer	North American Salt Company 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	Health / 1	
Severe4Serious3Moderate2Slight1Minimal0	Flammability 0   Physical Hazard 0   Personal Protection E	

#### 2. Hazards Identification

Emergency overview	CAUTION Contact may cause eye and skin irritation.
Potential short term health effect	is
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 the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

# 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium chloride	7647-14-5	60 - 100
Magnesium chloride, hexahydrate	7791-18-6	3 - 7
Corrosion Inhibitor Complex	Mixture	0.1 - 1

### 4. First Aid Measures

First aid procedures			
Eye contact	Flush with cool water. Remo Obtain medical attention if irr	ve contact lenses, if applicable, a tation persists.	and continue flushing.
Skin contact	Flush with cool water. Wash persists.	with soap and water. Obtain m	edical attention if irritation
Inhalation	If symptoms develop move vi attention.	ctim to fresh air. If symptoms pe	ersist, obtain medical
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.		
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### 5. Fire Fighting Measures

Flammable properties Extinguishing media	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.		
lazardous combustion products	May include and are not limited to: Hydrogen chloride. Halogenated compounds.		
Explosion data			
Sensitivity to mechanical impact	Not available		
Sensitivity to static discharge	Not available		
	6. Accidental Release Measures		
Personal precautions	Avoid dust generation.		
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. 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.		
адараланын тогологият с	7. Handling and Storage		
landling Storage	Use good industrial hygiene practices in handling this material. Avoid breathing dust. Keep out of reach of children. Keep containers tightly closed in a cool, well-ventilated place.		
8. Ex	posure Controls / Personal Protection		
Exposure limits			
ngredient(s)	Exposure Limits		
Corrosion Inhibitor Complex	ACGIH-TLV		
	Not established		
	OSHA-PEL		
	Not established		
Agnesium chloride, hexahydrate	ACGIH-TLV		
-	Not established		
	OSHA-PEL		
	Not established		
Sodium chloride	ACGIH-TLV		
	Not established		
	OSHA-PEL		

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Engineering controls	TWA PEL: No specific limits have been established for sodium chloride or magnesium chloride (soluble substances). As a guideline, OSHA (United States) 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-Hour TWA PEL, 15mg/cu.m. Total Dust 8-Hour TWA PEL.
	TWA TLV: No specific limits have been established for sodium chloride or magnesium chloride (soluble substances). As a guideline, ACGIH (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates (insolubles) Not Otherwise Classified (PNOC): 10mg/cu.m. Inhalable Particulate 8-Hours TWA TLV, 3mg/cu.m. Respirable Particulate 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 limit.
Personal protective equipmen	t
Eye / face protection	Safety glasses
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 or NIOSH-approved filtering facepiece.
General hygiene consider	ations 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	Crystalline.
Color	Blue
Form	Crystalline.
Odor	Odorless
Odor threshold	Not available
Physical state	Solid
рН	Basic
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
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 applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Solubility (H2O)	Partially soluble
Percent volatile	Not available

# 10. Stability and Reactivity

Chemical stability	Stable under recommended storage condi-	tions.	
Conditions to avoid	Do not mix with incompatible materials.		
Incompatible materials	Incompatible with acids and oxidizing ager	nts. Slightly reactive to re	eactive with metals.
Hazardous decomposition products	May include and are not limited to: Hydrog	jen chloride. Halogenate	d compounds.
Possibility of hazardous reactions	Hazardous polymerization does not occur.		
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### **11. Toxicological Information**

Component analysis - LC50	
Ingredient(s)	LC50
Corrosion Inhibitor Complex	Not available
Magnesium chloride, hexahydrate	Not available
Sodium chloride	> 21000 mg/m3 rat
Component analysis - Oral LD50	
Ingredient(s)	LD50
Corrosion Inhibitor Complex	Not available
Magnesium chloride, hexahydrate	8100 mg/kg rat
Sodium chloride	3000 mg/kg rat; 4000 mg/kg mouse
Effects of acute exposure	
Еуе	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.
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	Waste must be disposed of in accordance with federal, state/provincial and local environmental control regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available
	14. Transport Information
U.S. Department of Transportation	(DOT)
Not regulated as dangerous good	
Transportation of Dangerous Good	
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	15. Regulatory Information	
Canadian federal regulations	This product has been classified in accordance with the haza Products Regulations and the MSDS contains all the informat Controlled Products Regulations.	
US Federal regulations	This product is not known to be a "Hazardous Chemical" as d Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	lefined by the OSHA
	CERCLA/SARA Hazardous Substances - Not applicable.	
Occupational Safety and Health Ac	ministration (OSHA)	
29 CFR 1910.1200 hazardous chemical	No	
CERCLA (Superfund) reportable qu	lantity	
None		
Superfund Amendments and Reau	thorization 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 chemic	al 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	of this product comply with the inventory requirements administered by the go	overning 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	Dell Tech Laboratories Ltd. (519) 858-5021

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