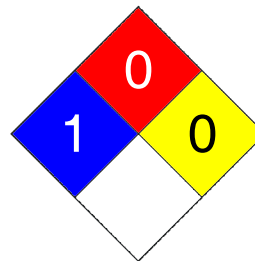


## 1. Product and Company Identification

**Product Name** Safe Step® Performance Blend  
**CAS #** Mixture  
**Product use** De-icer.  
**Manufacturer** Compass Minerals International  
 9900 West 109th Street, Suite 600  
 Overland Park, KS 66210 US  
 Phone: 913-344-9200  
**CHEMTREC** 1-800-424-9300  
**CANUTEC** 1-800-996-6666

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

Health	/ 1
Flammability	0
Physical Hazard	0
Personal Protection	E



## 2. Hazards Identification

**Emergency overview** CAUTION  
 MAY CAUSE EYE 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 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
Calcium chloride	10043-52-4	3 - 7
Magnesium chloride	7786-30-3	3 - 7

## 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**

Avoid contact with eyes. Wear safety glasses. 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. Keep out of reach of children.

## 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.
<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>	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.
<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. 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.

## 7. Handling and Storage

<b>Handling</b>	Avoid breathing dusts from this material. Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure Controls / Personal Protection

Exposure limits Ingredient(s)	Exposure Limits
Calcium chloride	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Magnesium chloride	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Sodium chloride	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established

## Engineering controls

TWA PEL: No specific limits have been established for sodium chloride, magnesium chloride or calcium 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, magnesium chloride or calcium 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.

## Personal protective equipment

### 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.

### 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.

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## 9. Physical & Chemical Properties

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Appearance	Crystalline.
Color	White
Form	Solid.
Odor	Odorless
Odor threshold	Not available
Physical state	Solid
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
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	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Auto-ignition temperature	Not available
Percent volatile	Not available

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## 10. Chemical Stability & Reactivity Information

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

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## 11. Toxicological Information

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### Component analysis - LC50

Ingredient(s)	LC50
Calcium chloride	Not available
Magnesium chloride	Not available
Sodium chloride	> 21000 mg/m <sup>3</sup> rat

### Component analysis - Oral LD50

Ingredient(s)	LD50
Calcium chloride	1000 mg/kg rat; 1940 mg/kg mouse
Magnesium chloride	2800 mg/kg rat
Sodium chloride	3000 mg/kg rat; 4000 mg/kg mouse

### Effects of acute exposure

<b>Eye</b>	May cause irritation.
<b>Skin</b>	May cause irritation.
<b>Inhalation</b>	Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
<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.

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## 12. Ecological Information

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**Ecotoxicity** May be harmful to freshwater aquatic species and to plants that are not saline tolerant.

### Ecotoxicity - Freshwater Algae Data

Magnesium chloride 7786-30-3 72 Hr EC50 *Scenedesmus subspicatus*: 2200 mg/L

### Ecotoxicity - Freshwater Fish Species Data

Calcium chloride 10043-52-4 96 Hr LC50 *Lepomis macrochirus*: 10650 mg/L [static]  
Magnesium chloride 7786-30-3 96 Hr LC50 *Gambusia affinis*: 16500 mg/L [static]  
Sodium chloride 7647-14-5 96 Hr LC50 *Lepomis macrochirus*: 9675 mg/L [flow-through]; 96 Hr LC50 *Lepomis macrochirus*: 12946 mg/L [static]; 96 Hr LC50 *Pimephales promelas*: 7650 mg/L [static]

### Ecotoxicity - Microtox Data

Magnesium chloride 7786-30-3 30 Min EC50 *Photobacterium phosphoreum*: 36300 mg/L; 24 Hr EC50 *Photobacterium phosphoreum*: 77200 mg/L; 1 Hr EC50 *Pseudomonas putida*: 26140 mg/L

### Ecotoxicity - Water Flea Data

Calcium chloride 10043-52-4 48 Hr EC50 *Daphnia magna*: 52 mg/L  
Magnesium chloride 7786-30-3 24 Hr EC50 *Daphnia magna*: 1400 mg/L  
Sodium chloride 7647-14-5 48 Hr EC50 *Daphnia magna*: 1000 mg/L

<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

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## 13. Disposal Considerations

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

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

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 Controlled

WHMIS classification Class D - Division 2B

WHMIS labeling



### 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)

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## 16. Other Information

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**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**

10-Dec-2008

**Effective date**

01-Dec-2008

**Expiry date**

01-Dec-2011

**Prepared by**

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