

Material Safety Data Sheet

Safe Step Plus

An electronic version of this MSDS is available at the following web address:
<http://www.compassminerals.com>



Section 1. Product and Company Identification

Common Name	: Safe Step Plus	Code	: Not available.
Supplier	: North American Salt Company 8300 College Boulevard Overland Park, KS 66210, USA	MSDS#	: Not available.
Synonyms	: Not available.	Preparation Date	: 12/15/2002.
Trade name	: Not available.	Print Date	: 12/15/2002.
Material Uses	: Deicing.		
Manufacturer	: North American Salt Company 8300 College Boulevard Overland Park, KS 66210, USA (913) 344-9100	In Case of Emergency	: Canada: CANUTEC-1-613-996-6666 US: CHEMTREC-1-800-424-9300

Section 2. Composition, Information on Ingredients

Name	CAS #	Exposure Limits
Potassium Chloride, (KCl)	7447-40-7	TWA PEL: No specific limits have been established for potassium chloride, 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 potassium chloride, 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 TWA TLV, 3mg/cu.m. Respirable Particulate TWA TLV.
Sodium chloride, (NaCl)	7647-14-5	
Magnesium Chloride Hexahydrate, (MgCl ₂ .6H ₂ O)	7791-18-6	

Section 3. Hazards Identification

Emergency Overview	: White crystalline solid. CAUTION! MAY CAUSE EYE IRRITATION.
Routes of Entry	: Absorbed through skin. Eye contact. Inhalation. Ingestion.
Potential Acute Health Effects	Eyes : Slightly hazardous in case of eye contact (irritant). Skin : Slightly hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Inhalation : Slightly hazardous in case of inhalation (lung irritant). Ingestion : Slightly hazardous in case of ingestion.
Potential Chronic Health Effects	: Carcinogenic Effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic Effects: Not available. Teratogenic Effects: Not available.
Medical Conditions Aggravated by Overexposure:	: Repeated or prolonged exposure is not known to aggravate medical condition.
Potential Environmental Effects	: Maybe harmful to freshwater aquatic species and to plants that are not saline tolerant.

[See Toxicological Information \(section 11\)](#)

Continued on Next Page

Section 4. First Aid Measures

- Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Cold water may be used. Obtain medical attention if irritation persists.
- Skin Contact** : Wash with soap and water. Cold water may be used. Obtain medical attention if irritation persists.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Obtain medical attention if irritation persists.
- Ingestion** : Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Obtain medical attention.
- Notes to Physician** : Not available.

Section 5. Fire Fighting Measures

- Flammability of the Product** : Non-flammable.
- Autoignition Temperature** : Not applicable.
- Flash Points** : Not applicable.
- Flammable Limits** : Not applicable.
- Products of Combustion** : May release toxic fumes of chlorine and potassium, sodium oxides.
- Fire Hazards in Presence of Various Substances** : Not applicable.
- Explosion Hazards in Presence of Various Substances** : Risks of explosion of the product in presence of mechanical impact: Not applicable.
Risks of explosion of the product in presence of static discharge: Not applicable.
- Fire Fighting Media and Instructions** : Use extinguishing media suitable for surrounding materials.
- Protective Clothing (Fire)** : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Special Remarks on Fire Hazards** : Not available.
- Special Remarks on Explosion Hazards** : Not available.

Section 6. Accidental Release Measures

- Small Spill and Leak** : Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements
- Large Spill and Leak** : Contact emergency service for advice. Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

- Handling** : Avoid breathing dust. Avoid contact with incompatibles.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection

- Engineering Controls** : Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

- Eyes** : Safety glasses.
- Body** : Protective clothing may be worn in dusty area, but is generally not required.
- Respiratory** : NIOSH approved filtering facepiece may be necessary.

Section 9. Physical and Chemical Properties

- Physical State and Appearance** : White crystalline solid.
- Color** : White.
- Odor** : Odorless.
- Molecular Weight** : Not available.
- Molecular Formula** : Not applicable.
- pH (5% Soln/Water)** : Not available.
- Boiling/Condensation Point** : Not available.
- Melting/Freezing Point** : Not available.
- Critical Temperature** : Not available.

Continued on Next Page

Specific Gravity	: Not available.
Vapor Pressure	: Not available.
Vapor Density	: Not available.
Volatility	: Not available.
Odor Threshold	: Not available.
Evaporation Rate	: Not available.
VOC	: Not available.
Viscosity	: Not available.
LogK _{ow}	: Not available.
Solubility	: Partially soluble in cold water, hot water.

Section 10. Stability and Reactivity

Stability and Reactivity	: The product is stable.
Conditions of Instability	: Not available.
Incompatibility with Various Substances	: Reactive with acids.
Hazardous Decomposition Products	: Not available.
Hazardous Polymerization	: Will not occur.

Section 11. Toxicological Information

Toxicity to Animals	: LD50: 3,000 mg/kg oral, rat (Sodium chloride); 2,600 mg/kg oral, rat (Potassium chloride); LC50: > 21,000 mg/m ³ 4 h, rat (Sodium chloride);
Chronic Effects on Humans	: Carcinogenic Effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. May cause damage to the following organs: eyes, endothelium.
Other Toxic Effects on Humans	: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).
Special Remarks on Toxicity to Animals	: Not available.
Special Remarks on Chronic Effects on Humans	: Not available.
Special Remarks on Other Toxic Effects on Humans	: Not available.

Section 12. Ecological Information

Ecotoxicity	: Maybe harmful to freshwater aquatic species and to plants that are not saline tolerant.
BOD and COD	: Not available.
Biodegradable/OECD	: Not available.
Mobility	: Not available.
Products of Degradation	: These products are halogenated compounds. Some metallic oxides.
Toxicity of the Products of Biodegradation	: Not available.
Special Remarks	: Not applicable.

Section 13. Disposal Considerations

Waste Information	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	: Not available.

Consult your local or regional authorities.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label
DOT Classification	Not applicable.	Not applicable.	Not a DOT controlled material (United States).	Not applicable.	
TDG Classification	Not applicable.	Not applicable.	Not a TDG controlled material.	Not applicable.	
ADR/RID Class	Not available.	Not available.	Not available.	Not available.	
IMDG Class	Not available.	Not available.	Not available.	Not available.	
IATA-DGR Class	Not available.	Not available.	Not available.	Not available.	

Section 15. Regulatory Information

HCS Classification : Not controlled under the HCS (United States).

U.S. Federal Regulations : TSCA 8(b) inventory: Potassium Chloride 7447-40-7; Sodium chloride 7647-14-5; Magnesium chloride 7786-30-3 (as anhydrous)
 Not listed under SARA 302, 304 or 313.
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium Chloride: Immediate (Acute) Health Hazard
 SARA 313 toxic chemical notification and release reporting: No ingredient was found.
 Not listed under CWA.
 Not listed under CAA.
 Not listed under CERCLA.
 Clean Air Act (CAA) 112 regulated flammable substances: No ingredient was found.
 Clean Air Act (CAA) 112 regulated toxic substances: No ingredient was found.
 CERCLA: Hazardous substances.: No ingredient was found.

State Regulations : No products were found under New Jersey, New York and Pennsylvania RTK.
 California Prop. 65: No ingredient was found.

Canadian Regulations : Not controlled under WHMIS (Canada).
 This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)



References : Not available.

Other Special Considerations : Not available.

Date of printing : 12/15/2002.

Preparation Date : 12/15/2002.

Prepared by : Dell Tech Laboratories Ltd. (519) 858-5021

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.