1. Product and Company Identification

Product Name: Sodium Chloride, Salt
CAS #: 7647-14-5

Product use: De-icer. General industrial and water softening/conditioning purposes.
Manufacturer: North American Salt Company — Sure-Soft
9900 West 109th St., Suite 600
Overland Park, KS 66210 US
Phone: 913-344-9200

Supplier: Compass Minerals International
9900 West 109th Street, Suite 600
Overland Park, KS 66210 US
Phone: 913-344-9200
Website: www.compassminerals.com

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>HMIS/NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>4</td>
</tr>
<tr>
<td>Serious</td>
<td>3</td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>Slight</td>
<td>1</td>
</tr>
<tr>
<td>Minimal</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Hazards Identification

Emergency overview: CAUTION
EYE AND SKIN IRRITANT.

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

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

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: Brush away excess of dry material. Flush with 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: None Available.

5. Fire Fighting Measures

Flammable properties: Not flammable by WHMIS/OSHA criteria. May be combustible at high temperatures.
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.

### 6. Accidental Release Measures

**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 for 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.

### 7. Handling and Storage

**Handling**
Avoid breathing dusts from this material.

**Storage**
Keep out of reach of children. Keep containers tightly closed in a cool, well-ventilated place.

### 8. Exposure Controls / Personal Protection

**Exposure limits**

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>ACGIH-TLV Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL Not established</td>
</tr>
</tbody>
</table>

**Engineering controls**

TWA PEL: No specific limits have been established for sodium chloride (a soluble substance). 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, 10mg/cu.m. Total Dust 8-Hour TWA PEL.

TWA TLV: No specific limits have been established for sodium chloride (a soluble substance). 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 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 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 and immediately after handling the product.

### 9. Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Crystalline.</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Form</td>
<td>Crystals</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>pH</td>
<td>6 - 8 (Neutral)</td>
</tr>
<tr>
<td>Melting point</td>
<td>800.9 °C (1473.8 °F)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>1413 °C (2575.4 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limits in air, lower, % by volume</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability limits in air, upper, % by volume</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.1 kPa (1 mmHg) @ 865°C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not applicable</td>
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<tr>
<td>Specific gravity</td>
<td>2.17 (H2O = 1)</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.17 g/cm³</td>
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<tr>
<td>Octanol/water coefficient</td>
<td>Not available</td>
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<td>Solubility (H2O)</td>
<td>36g/100g H2O @ 20°C</td>
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<td>Auto-ignition temperature</td>
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<tr>
<td>Viscosity</td>
<td>Not applicable</td>
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<tr>
<td>Percent volatile</td>
<td>0 % w/w</td>
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<tr>
<td>Molecular weight</td>
<td>58.4400 g/mole</td>
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<tr>
<td>Molecular formula</td>
<td>NaCl</td>
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</table>

### 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, lithium, bromine trifluoride.

**Hazardous decomposition products**

May include and are not limited to: Chlorine, sodium oxides

**Possibility of hazardous reactions**

Hazardous polymerization does not occur.

### 11. Toxicological Information

#### Component analysis - LC50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>&gt; 21000 mg/m3 rat</td>
</tr>
</tbody>
</table>

#### Component analysis - Oral LD50

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>3000 mg/kg rat</td>
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</tbody>
</table>

#### Effects of acute exposure

- **Eye**: 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.

### 12. Ecological Information

**Ecotoxicity**

Maybe 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

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

Department of Transportation (DOT): Not regulated as dangerous goods.
Transportation of Dangerous Goods (TDG): 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
Safe Drinking Water Act (SDWA): Not available
Drug Enforcement Agency (DEA): Not available
Food and Drug Administration (FDA): 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
Canada
Canada
United States & Puerto Rico

Inventory name
Domestic Substances List (DSL)
Non-Domestic Substances List (NDSL)
Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)*
Yes
No
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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<tr>
<td>Effective date</td>
<td>01-Sep-2005</td>
</tr>
<tr>
<td>Expiry date</td>
<td>01-Sep-2008</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Dell Tech Laboratories Ltd. (519) 868-5021</td>
</tr>
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