MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name: Aspen Snow & Ice Melter
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

<table>
<thead>
<tr>
<th>HMIS/NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>E</td>
</tr>
<tr>
<td>Serious</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Slight</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Minimal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

2. Hazards Identification

Emergency overview: CAUTION
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 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>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>7791-18-6</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Corrosion Inhibitor Complex</td>
<td>Mixture</td>
<td>0.1 - 1</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:** 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

None Available.

5. Fire Fighting Measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable properties</td>
<td>Not flammable by WHMIS/OSHA criteria.</td>
</tr>
<tr>
<td>Extinguishing media</td>
<td></td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Treat for surrounding material.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>Not available</td>
</tr>
<tr>
<td>Protection of firefighters</td>
<td></td>
</tr>
<tr>
<td>Specific hazards arising from the chemical</td>
<td>Not available</td>
</tr>
<tr>
<td>Protective equipment for firefighters</td>
<td>Firefighters should wear full protective clothing including self contained breathing apparatus.</td>
</tr>
<tr>
<td>Hazardous combustion products</td>
<td>May include and are not limited to: Oxides of magnesium. Hydrogen chloride.</td>
</tr>
<tr>
<td>Explosion data</td>
<td></td>
</tr>
<tr>
<td>Sensitivity to mechanical impact</td>
<td>Not available</td>
</tr>
<tr>
<td>Sensitivity to static discharge</td>
<td>Not available</td>
</tr>
</tbody>
</table>

6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Precaution</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. If necessary: Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.</td>
</tr>
<tr>
<td>Methods for containment</td>
<td>Prevent entry into waterways, sewers, basements or confined areas.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>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.</td>
</tr>
</tbody>
</table>

7. Handling and Storage

| Handling                                      | Avoid breathing dusts from this material. Use good industrial hygiene practices in handling 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>Corrosion Inhibitor Complex</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td>Magnesium chloride, hexahydrate</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>ACGIH-TLV</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td></td>
<td>Not established</td>
</tr>
</tbody>
</table>

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. General ventilation normally adequate.

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 faceplace.

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>Value</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>Crystalline.</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</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>Basic</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>None</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Flammability limits in air, lower, % by volume  Not applicable
Flammability limits in air, upper, % by volume  Not applicable
Vapor pressure  Not applicable
Vapor density  Not applicable
Specific gravity  Not applicable
Octanol/water coefficient  Not applicable
Solubility (H2O)  Partially soluble
Auto-ignition temperature  Not applicable
Percent volatile  Not applicable

10. Chemical Stability & Reactivity Information

Chemical stability  Stable under recommended storage conditions.
Conditions to avoid  Do not mix with incompatible materials.
Incompatible materials  Incompatible with acids and oxidizing agents. Slightly reactive to reactive with metals.
Hazardous decomposition products  May include and are not limited to: Oxides of magnesium. Hydrogen chloride.
Possibility of hazardous reactions  Hazardous polymerization does not occur.

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; 7600 mg/kg mouse
Sodium chloride  3000 mg/kg rat; 4000 mg/kg mouse

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  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 applicable
Mobility in environmental media  Not available
### 13. Disposal Considerations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste codes</td>
<td>Not available</td>
</tr>
<tr>
<td>Disposal instructions</td>
<td>Waste must be disposed of in accordance with federal, state/provincial and local environmental control regulations.</td>
</tr>
<tr>
<td>Waste from residues / unused products</td>
<td>Not available</td>
</tr>
<tr>
<td>Contaminated packaging</td>
<td>Not available</td>
</tr>
</tbody>
</table>

### 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 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**
- WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**Inventory name**
- **On inventory (yes/no)**
  - Domestic Substances List (DSL) - Yes
  - Non-Domestic Substances List (NDSL) - No
  - 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).
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.

Issue date
30-Oct-2008

Effective date
31-Oct-2008

Expiry date
31-Oct-2011

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