Section 1: Identification

Product Identifier
Calcium Chloride Brine with Corrosion Inhibitors

Product Name
Trade Name: Heatwave De-Icer Liquid Pretreat
PN (Part number): 136001

Relevant identified uses of the substance or mixture and uses advised against
-Anti-icing and De-icing

Details of the supplier of the safety data sheet
Manufacturer
SPLASH Products
51 Maryland Ave. E
St. Paul, MN 55117
Phone: (651) 489-8211

Emergency telephone number
1-800-535-5053

Section 2: Hazard(s) Identification

OSHA/HCS status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture
Eye Irritation, Category 2A

GHS label elements

Hazard pictograms

Signal word-WARNING
Calcium chloride

Hazard statements
Causes serious eye irritation.

Precautionary statements
Prevention
Wear protective gloves/protective clothing/eye protection/face protection.
Take off contaminated clothing and wash before use
Keep away from oxidizing materials and strong acids

Response
IF SWALLOWED: Single dose oral toxicity is believed to be low. Small amounts swallowed incidental to normal handling procedures are not likely to cause injury. Ingestion may cause gastrointestinal irritation or ulceration.

IF ON SKIN (or hair): Short single exposure is not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe response if confined to skin or skin in abraded (scratched or cut). Material may be handled at elevated temperatures; contact with heated material may cause thermal burns. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts. Not classified as corrosive with TDG Act and Regulations.

IF IN EYES: Material may be handled at elevated temperatures; contact with heated material may cause thermal burns. May cause severe irritation with corneal injury. Effects may be slow to heal.

IF INHALED: Vapors are unlikely due to physical properties. Mists may cause irritation to upper respiratory tract.

IF EXPOSED or CONCERNED:
Immediately call a POISON CENTER or a doctor/physician.

Storage
No special storage conditions required.

Disposal
Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified
Product is stable.

Section 3: Composition/Information on Ingredients

Substance/mixture:Mixture
Chemical name: Calcium Chloride
Other means of identification: No

CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td>25-30</td>
<td>010043-52-4</td>
</tr>
<tr>
<td>Magnesium Chloride</td>
<td>2-4</td>
<td>007791-18-6</td>
</tr>
<tr>
<td>Corrosion Inhibitor</td>
<td>8-10</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measurements

Description of necessary 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 15 minutes. Cold water may be used. Get medical attention immediately.

Inhalation: Bring accident victims out into the fresh air. Call a physician immediately in severe cases or if recovery is not rapid.

Skin contact: After contact with skin, wash immediately with plenty of water. Remove contaminated clothing and wash before reuse.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth with water and give one glass of water to drink. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed
Potential acute health effects

Eye contact
May cause irritation to eyes and mucous membranes.

Inhalation
Vapors are unlikely due to physical properties. Mists may cause irritation to upper respiratory tract.

Skin contact
May cause irritation.

Ingestion
Not expected to cause irritation.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician
Exposure may aggravate acute or chronic asthma, emphysema and bronchitis.

Specific treatments
N/A

Protection of first-aiders
N/A

See toxicological information (Section 11)

Section 5: Fire Fighting Measures

Extinguishing media

Suitable extinguishing media
This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

Unsuitable extinguishing media
None known

Specific hazards arising from the chemical
None known

Hazardous thermal decomposition products/Products of combustion
May yield hydrogen chloride, halogenated compounds and chlorine gas.

Special protective actions for fire fighters
Do not release runoff from fire control methods to sewers or waterways.

Special protective equipment for fire-fighters
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Isolate area. Avoid contact with eye and skin. May be a slipping hazard. Stop leak if it can be done safely. Wash exposed body areas thoroughly after handling. Use appropriate safety equipment.

Environmental precautions

Methods and materials for containment and cleaning up:
For small spills: Losses incidental to correct applications of this product in its intended uses are not expected to be harmful to the environment.

For large spills: Avoid contamination of drinking water, natural water, ground water or any waterway. Losses incidental to correct applications of this product in its intended uses are not expected to be harmful to the environment.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7: Handling and Storage

Precautions for safe handling

Protective measures, advice on general occupational hygiene and conditions for safe storage, including any incompatibilities:

Product shipped/handled hot can cause thermal burns. Selection of specific items such as gloves, boots, apron, or other will depend on each operation. If hands are cut or scratched, use gloves impervious to this material for brief exposures. Use gloves with insulation for thermal protection when needed.

Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In misty atmospheres, use an approved mist respirator.

Section 8: Exposure Controls/Personal Protection

Control parameters

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>ACGIH (TWA)</th>
<th>ACGIH (STEL)</th>
<th>OSHA (TWA)</th>
<th>OSHA (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Appropriate engineering controls and Environmental exposure controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Individual protection measures

Hygiene measures

Suitable washing facilities should be available in the work area.

Eye/face protection: Use chemical safety goggles.

Skin protection

Hand protection and Body protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Other skin protection

Wash hands and other exposed areas with mild soap and water before eating or drinking.

Respiratory protection: No respiratory protection required under normal circumstances.

Respirator Type(s) (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, Glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in Oxygen-deficient atmospheres.

Section 9: Physical and Chemical Properties

Appearance

Physical state: Clear to amber colored liquid

Odor: None

Odor threshold: Not determined
pH: 5-9  
Specific Gravity: 1.334  
Melting point: Not determined  
Boiling point: 122°C  
Flash point: Not applicable  
Evaporation rate (BuAc=1): Not determined  
Flammability (solid, gas): No  
Lower and upper explosive (flammable) limits: LEL: Not applicable, UEL: Not applicable  
Vapor pressure: 7-15 mmHg at 25°C  
Vapor density (Air=1): Same as water  
Solubility: Soluble in water  
Partition coefficient: n-octanol/water: Not Established  
Auto-ignition temperature: Not Applicable  
Decomposition temperature: Not Established  
Viscosity: <100 cP @ 70°C  
VOC%: 0

Section 10: Stability and Reactivity

Reactivity
Stable under recommended storage conditions.

Chemical stability
Stable under recommended storage conditions. Hygroscopic

Possibility of hazardous reactions
Will not occur.

Conditions to avoid
Temperatures above 350°F.

Incompatible materials
Strong oxidizing agents, concentrated acids and some metals

Hazardous decomposition products
When heated to decomposition emits hydrogen chloride, halogenated compounds and chlorine gas.

Section 11: Toxicological Information

Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product/ingredient name</strong></td>
</tr>
<tr>
<td>Calcium Chloride</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Summary Comments:

Sensitization

| **Product/ingredient name** | **Test** | **Results** | **Basis** |
| Calcium Chloride | | | No evidence of sensitization effect |

Summary Comments:

Carcinogenicity

| **Product/ingredient name** | **Test** | **Results** | **Basis** |

Page 5 of 8
Calcium Chloride

**Summary Comments:**

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
<th>Basis</th>
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</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td>STOT-one-time exposure-oral</td>
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<tr>
<td>Calcium Chloride</td>
<td>STOT-one-time exposure-dermal</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Calcium Chloride</td>
<td>STOT-one-time exposure-inhalation</td>
<td>No information available</td>
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</table>

**Summary Comments:**

**Specific target organ toxicity (repeated exposure)**

<table>
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<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
<th>Basis</th>
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</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
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</table>

**Summary Comments:**

Aspiration hazard

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Results</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td></td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

**Information on the likely routes of exposure**

Ingesting may irritate the gastrointestinal tract.

**Potential acute health effects**

- **Eye contact:** Irritating to the eyes.
- **Inhalation:** No information available.
- **Skin contact:** Contact of skin can produce mild dermatitis in humans.
- **Ingestion:** Tests involving acute exposure of rats, mice, and rabbits have demonstrated calcium chloride to have low acute toxicity from oral exposure.

**Symptoms related to the physical, chemical and toxicological characteristics**

- **Eye contact:** Eye irritation.
- **Inhalation:** No information available.
- **Skin contact:** Skin irritation.
- **Ingestion:** May irritate the gastrointestinal tract, cause nausea, and vomiting.

**Potential chronic health effects (Calcium Chloride)**

- **Carcinogenicity:** No known carcinogens.
- **Mutagenicity:** No data available.
- **Teratogenicity:** No data available.
- **Developmental effects:** No data available.
- **Fertility effects:** No data available.

**Numerical measures of toxicity**

- **Acute toxicity estimates**
  - 0% of the mixture consists of ingredients of known toxicity.

**Section 12: Ecological Information**

**Toxicity**

**Acute Fish toxicity:** (Calcium Chloride)
LC50 – Lepomis macrochirus (Bluegill) – 10,650 mg/l - 96 h

Acute toxicity for daphnia: (Calcium Chloride)
EC50 - Daphnia magna (Water flea) – 2,400 mg/l - 48 h

Acute toxicity for algae: (Calcium Chloride)
EC50 - Scenedesmus capricornutum (fresh water algae) – No information available

Acute bacterial toxicity: (Calcium Chloride)
No data available.

Ecotoxicology Assessment: (Calcium Chloride)
Material is expected to be slightly toxic to aquatic life.

Persistence and degradability
Biodegradability: (Calcium Chloride)
Product is not biodegradable

Stability in water: (Calcium Chloride)
No data available

Photodegradation: (Calcium Chloride)
No data available

Volutility (Henry's Law constant): (Calcium Chloride)
No data available

Bioaccumulative potential
Bioaccumulation: (Calcium Chloride)
Does not bioaccumulate

Mobility in soil: (Calcium Chloride)
Distribution among environmental compartments:
Does not bioaccumulate

Other adverse effects:
No information available

Section 13: Disposal Considerations
Disposal methods
Dispose in accordance with applicable international, national and local laws, ordinances and statutes.

Section 14: Transport Information
UN Number: Not regulated
UN Proper Shipping Name: Not regulated
Transport hazard Class(es): N/A
Packing Group: N/A

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)
Transport Hazard Class(es): Not Regulated

Maritime Transport IMDG/GGVSSea
Transport Hazard Class(es): Not Regulated
Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR
Transport Hazard Class(es): Not regulated

Section 15: Regulatory Information

Chemical Inventory Status-Part 1

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
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<tr>
<td>Calcium Chloride (10043-52-4)</td>
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Chemical Inventory Status-Part 2

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>Korea</th>
<th>Canada</th>
<th>Canada</th>
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<tbody>
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<td>Yes</td>
<td>No</td>
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</table>

Federal, State & International Regulations-Part 1

<table>
<thead>
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<th>Ingredient (CAS#)</th>
<th>SARA 302</th>
<th>SARA 313</th>
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<tbody>
<tr>
<td>Calcium Chloride (10043-52-4)</td>
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Federal, State & International Regulations-Part 2

<table>
<thead>
<tr>
<th>Ingredient (CAS#)</th>
<th>RCRA</th>
<th>TSCA</th>
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<tbody>
<tr>
<td>Calcium Chloride (10043-52-4)</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No

TSCA 12b: No

CDTA: No

**SARA 311/312:**

Acute: Yes, Chronic: No, Fire: No, Pressure: No, Reactivity: No

Mixture/Liquid

Australian Hazchem Code: None allocated

Poison Schedule: No information found

Section 16: Other Information

History

Date of issue: 06/09/15

Version: 2a

Revised Sections(s): Reformulate without urea

Prepared by: Andrew Gioino, SPLASH PRODUCTS

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 the 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.