Section 1: Identification of the substance/mixture and of the company/undertaking

PRODUCT IDENTIFIER
Product name: Calcium Chloride Flakes
Product form: Mixture

Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/ice and snow melt, dust control, swimming pools, ready mix concrete, tire ballast ions.

Details of the supplier of the safety data sheet
Name/Address: Chemical Equipment Labs, INC
PO Box 1136
Linwood, PA 19061
Contact Information:
Telephone: 610-497-9390
Fax: 610-497-9524
Email: ERM@CHEMICALEQUIPMENTLABS.COM
Website: WWW.CHEMICALEQUIPMENTLABS.COM

EMERGENCY TELEPHONE NUMBER
CHEMTREC (800) 424-9300

Section 2: HAZARD(S) IDENTIFICATION

Classifications

<table>
<thead>
<tr>
<th>Serious eye damage/eye irritation</th>
<th>Category 2</th>
</tr>
</thead>
</table>

CHS Label elements, including precautionary statements

Emergency Overview
Signal Word Hazardous Statements: Causes serious eye irritation
Appearance: White
Physical state: Flake or pellet
Odor: Odorless

Precautionary Statements
Prevention: Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.
Response: IF IN EYES, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritating persists, get medical advice/attention.

Storage: None

Disposal: None

Hazard not otherwise classified (HNOC): Not applicable

Other information: Wear hand protection

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>PRODUCT IDENTIFIER (CAS No)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td>10043-52-4</td>
<td>74-100</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>0-26</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>7447-40-7</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Magnesium Chloride</td>
<td>7786-30-3</td>
<td>&lt;0.5</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Description of first aid measures

First-aid measures general: If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to unconscious person.

First aid measures after inhalation: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact: IF ON SKIN (or clothing): Removed affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.

First-aid measures after eye contact: IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion: IF SWALLOWED: Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

Protection of First-aiders: Use personal protective equipment

Most important symptoms/effects, acute and delayed

Most important Symptoms/Effects: Irritation

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

Notes to Physician: Treat symptomatically

By Chemical Equipment Labs, INC
September 15, 2016

Page 2 of 9
Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media : Use extinguishing measures that are appropriate to the local circumstances and the surrounding environment.

Unsuitable Extinguishing Media : None

Specific hazards arising from the chemical : Avoid generating dust, under certain conditions may cause respiratory irritation. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion Data

Sensitivity to mechanical impact : None.

Sensitivity to static discharge : None.

Protective equipment and precautions for firefighters : As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid contact with the skin and eyes. Use personal protective equipment. Avoid dust formation.

Environmental precautions : Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for addition Ecological information.

Methods for containment : Cover powder spill with plastic sheet or tarp to minimize spreading and keep dry.

Methods for cleaning up : Take up mechanically and collect in suitable container for disposal. Use personal protective equipment.

Refer to Section 13 for disposal information and Section 14 and 15 for reportable quantity information.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Handling : Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing dust. Avoid dust formation. Minimize dust generation and accumulation.

Conditions for safe storage, including any incompatibilities

Storage : Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. Keep in a dry place.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium chloride</td>
<td>ACGIH – (TLV-TWA) Guideline for nuisance particulate (inhalable particulate): 10 mg/m³</td>
<td>OSHA (PEL-TWA) – Z-3 Mineral Dust, inert or Nuisance dust, (respirable fraction): 5 mg/m³</td>
<td>-</td>
</tr>
<tr>
<td>10043-52-4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Measures: Provide local exhaust ventilations system. When there is a potential for exposure, an emergency eyewash and safety shower should be provided within the immediate work area.

Individual protection measure, such as personal protective equipment

Eye/Face protection: Wear safety glasses with non-flexible side shields or chemical goggles.

Skin and body protection: Hands and Feet: Wear appropriate protective non-leather protections gloves and boots such as PVC, Neoprene, or Heavy Nitrile are recommended. Leather products do not offer adequate protection and will dehydrate with resultant shrinkage and possible destruction.

Body: Wear appropriate protective, impervious clothing.

Respiratory protection: A respiration is not indicated under normal operating conditions. Use of a NIOSH – approved respirator (N95 or greater) should be on the presence of nuisance dust.

Hygiene Measures: When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State: Flake or pellet
Appearance: White
Odor: Odorless

By Chemical Equipment Labs, INC
September 15, 2016
Odor Threshold: No information available

**PROPERTIES**

- **pH**: not applicable
- **Melting point/range**: 175-770 °C / 350-1420 °F
- **Boiling point/boiling range**: 175-1930 °C / 350-3500 °F
- **Flash point**: Not applicable
- **Evaporation rate**: No data available
- **Flammability (solid, gas)**: No data available
- **Flammability limits in Air**
  - Upper Flammability limit: No data available
  - Lower Flammability limit: No data available
- **Vapor pressure**: Not applicable
- **Vapor Density**: Not applicable
- **Specific gravity**: (H2O=1) 2.15 @ 77°F/25°C
- **Water solubility**: 40% @ 68°F (20°C) with evolution of heat
- **Solubility in other solvents**: No data available
- **Partition coefficient: n-octanol/water**: No data available
- **Auto ignition temperature**: No data available
- **Decomposition temperature**: No data available
- **Viscosity**: Not applicable
- **Flammable properties**: Not flammable
- **Explosive properties**: No Data available
- **Oxidizing properties**: No data available

**Other information**

- **VOC Content (%)**: Not applicable

**Section 10: STABILITY AND REACTIVITY**

- **Reactivity**: No data available.
- **Chemical stability**: Stable under recommended storage conditions.
- **Hazardous reactions**: Not expected under recommended storage conditions.
- **Hazardous polymerization**: Hazardous polymerization does not occur.
- **Conditions to avoid**: Dust formation.
- **Incompatible materials**: Zinc, Bromine trifluoride. Methyl vinyl ether.
- **Hazardous decomposition products**: Hydrogen chloride gas and oxides.

**Section 11: TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product information**

- **Inhalation**: May cause irritation of respiratory tract.
- **Eye contact**: Irritating to eyes.
- **Skin contact**: May cause irritation.

By Chemical Equipment Labs, INC
September 15, 2016
Ingestion: May cause irritation.

**Component Information**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LD50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td>2301 mg/kg (rat)</td>
<td>2630 mg/kg (rat)</td>
<td>-</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>2600 mg/kg (rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>3 g/kg (rat)</td>
<td>&gt;10 g/kg (rabbit)</td>
<td>&gt;42 g/m³ (rat) 1 h</td>
</tr>
</tbody>
</table>

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

Symptoms: May cause irritation to the respiratory system

**Delayed and immediate effects and also chronic effects from the short and long term exposure**

- Eye damage/irritation: Irritating to eyes.
- Sensitization: No information available.
- Mutagenic Effects: No information available.
- Carcinogenicity: Contains no ingredients above reportable quantities listed as a carcinogen.
- Reproductive Toxicity: No information available.
- STOT – single exposure: No information available.
- STOT – repeated exposure: No information available.
- Chronic toxicity: Avoid repeated exposure.
- Aspiration hazard: No information available.

**Numerical measures of toxicity - Product**

No information available.

### Section 12: ECOLOGICAL INFORMATION

**Eco toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride 10043-52-4</td>
<td>LC50 96 h = 10650 mg/L static (leptomis macrochirus)</td>
<td>LC50 96 h = 10650 mg/L static (leptomis macrochirus)</td>
<td>LC50 48 h = 2400 mg/L (Daphnia Magna)</td>
<td></td>
</tr>
</tbody>
</table>
| Potassium Chloride 7447-40-7 | EC50 72 h = 2500 mg/L (Desmodesmus subspicatus) | LC50 96 h = 750-1020 mg/L (pimephales promelas)  
LC50 96 h = 1060 mg/L static (leptomis macrochirus) | EC50 48 h = 825 mg/L (Daphnia Magna)  
EC50 48 h = 83 mg/L (Daphnia Magna) |
| Sodium chloride 7647-14-5 | LC50 96 h = 5560-6080 mg/L flow-through (leptomis macrochirus)  
LC50 96h = 12946 mg/L | | EC50 48 h = 1000 mg/L (Daphnia Magna)  
EC50 48 h = 340.7-469.2 mg/L static (Daphnia Magna) |
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>static (Lepomis macrochirus)</td>
<td>LC50 96 h = 6020-7070 mg/L semi-static (pimephales promelas) LC50 = 6420-6700 mg/L static (pimephales promelas) LC50 96 h = 4747-7824 mg/L flow-through (Oncorhynchus mykiss)</td>
</tr>
</tbody>
</table>

Persistence and degradability: Product is no biodegradable
Bioaccumulation: Does not bio accumulate

**Other adverse effects**
No information available.

**Section 13: DISPOSAL CONSIDERATIONS**

Waste disposal methods: This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional or local regulation for additional requirements.

Contaminated packaging: Do not reuse empty containers.

**Section 14: TRANSPORT INFORMATION**

The data provided in the section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

DOT: Not regulated
IATA: Not regulated
IMDG: Not regulated

**Section 15: REGULATORY INFORMATION**

By Chemical Equipment Labs, INC
September 15, 2016
International Inventories

TSCA : Complies
DSL : Complies

Legend

TSCA : United States Toxic Substance control Act Section 8(b) Inventory
DSL/NDSL : Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311-312 Hazard Categories

Acute health hazard : Yes
Chromic health hazard : No
Fire hazard : No
Sudden release of pressure hazard : No
Reactive hazard : No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Propositions

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

U.S. EPA Label Information

EPA Pesticide Registration Number : Not Applicable.
Section 16: OTHER INFORMATION

Indication of changes: Revision 2.0
Revision date: September 15, 2016
Other information: ERM

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested NFPA Rating</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Suggested HMIS Rating</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

NOTE TO EMPLOYER

This Safety Data Sheet contains environmental, health and toxicology information for your employees. Please ensure this information is provided to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this SDS must be given to the buyer or the information incorporated in you SDS. Discard any previous edition of this SDS.

DISCLAIMER

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, Chemical Equipment Labs, LLC makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for the reliance thereon. Chemical Equipment Labs, LLC assumes no responsibility for any injury or loss resulting from the use of the product described herein. User should satisfy himself that he has all current data relevant to his particular use.

End of Safety Data Sheet