

NO SHOVELIN'- ICE MELTER



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name - 94-97% Calcium Chloride
SDS Number/Grade - CC-02

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) - Concrete acceleration, Drilling fluid additive, Dust control

1.3 Details of the supplier of the safety data sheet



Empire Industries
P.O. Box 1404
Brentwood, TN 37024
(615) 969-8106

1.4 Emergency telephone number

Manufacturer - 800-424-9300 - CHEMTREC

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP - Acute Toxicity Oral 4 - H302
Eye Irritation 2 - H319

DSD/DPD - Harmful (Xn)
Irritant (Xi)
R22, R36

2.2 Label Elements

CLP

WARNING



- Hazard statements** • H302 - Harmful if swallowed
H319 - Causes serious eye irritation

Precautionary statements

- Prevention** • P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear eye/face protection , .
- Response** • P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
P330 - Rinse mouth.
- Storage/Disposal** • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R22 - Harmful if swallowed.
R36 - Irritating to eyes.
- Safety phrases** • S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD** • This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Acute Toxicity Oral 4 - H302
Eye Irritation 2 - H319

2.2 Label elements

OSHA HCS 2012

WARNING



- Hazard statements** • Harmful if swallowed - H302
Causes serious eye irritation - H319

Precautionary statements

- Prevention** • Wash thoroughly after handling. - P264
Do not eat, drink or smoke when using this product. - P270
Wear eye/face protection , . - P280
- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
If eye irritation persists: Get medical advice/attention. - P337+P313
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell. - P301+P312
Rinse mouth. - P330
- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations. - P501

2.3 Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada**According to WHMIS****2.1 Classification of the substance or mixture****WHMIS**

- Other Toxic Effects - D2B

2.2 Label elements**WHMIS**

- Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients**3.1 Substances**

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Calcium chloride	CAS:10043-52-4 EC Number:233-140-8 EU Index:017-013-00-2	94% TO 97%	Ingestion/Oral-Rat LD50 • 1 g/kg	EU DSD/DPD: Annex VI, Table 3.2: Xi R36; Additional Self Classification: Xn R22 EU CLP: Annex VI, Table 3.1: Eye Irrit. 2, H319; Additional Self Classification: Acute Tox. 4, H302 OSHA HCS 2012: Eye Irrit. 2; Acute Tox. 4 (orl)	NDA
Potassium chloride	CAS:7447-40-7 EC Number:231-211-8	2% TO 3%	Ingestion/Oral-Rat LD50 • 2600 mg/kg	EU DSD/DPD: Self Classified: Xi R36 EU CLP: Self Classified: Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2	NDA
Sodium chloride	CAS:7647-14-5 EC Number:231-598-3	1% TO 2%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	EU DSD/DPD: Self Classified: Xi R36 EU CLP: Self Classified: Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2	NDA

3.2 Mixtures

- Material does not meet the criteria of a mixture.

Section 4 - First Aid Measures**4.1 Description of first aid measures**

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Format: EU CLP/REACH Language: English (US)
WHMIS, EU CLP, EU DSD/DPD, OSHA HCS 2012

- Inhalation**
- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If signs/symptoms continue, get medical attention.
- Skin**
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Do NOT induce vomiting. Rinse mouth. Give one cup (8 ounces or 240 mL) of water or milk if available. Do not give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media ● In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media ● No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards ● Material does not burn.

Hazardous Combustion Products ● No data available.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions ● Do not walk through spilled material. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Spilled material may cause a slipping hazard.

Emergency Procedures ● Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures ● Avoid generating dust.
SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
 Flush residue with plenty of water.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Avoid contact with skin, eyes, and clothing. Do not taste or swallow. Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80°F, 27°C). Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool, dry place. Protect from moisture.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

- No applicable exposure limits available for product or components.

8.2 Exposure controls

Engineering

Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White powder with no odor.
Color	White	Odor	Odorless
Odor Threshold	Not relevant		
General Properties			
Boiling Point	Not relevant	Melting Point	772 C(1421.6 F) (approximately)
Decomposition Temperature	Not relevant	pH	Not relevant
Specific Gravity/Relative Density	Not relevant	Bulk Density	65 lb(s)/ft ³ (estimated)
Water Solubility	Soluble	Viscosity	Not relevant
Explosive Properties	Not relevant.	Oxidizing Properties:	Not relevant.

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Volatility			
Vapor Pressure	Negligible	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Not relevant		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

10.4 Conditions to avoid

- Avoid moisture.

10.5 Incompatible materials

- Heat is generated when mixed with water. Spattering and boiling can occur. Avoid contact with sulfuric acid. Corrosive when wet. Flammable hydrogen may be generated from contact with metals such as zinc and sodium. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromate.

10.6 Hazardous decomposition products

- Does not decompose.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Calcium chloride (94% TO 97%)	10043-52-4	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1 g/kg
Impurities, Stabilizers, etc...		
Potassium chloride (2% TO 3%)	7447-40-7	Acute Toxicity: Ingestion/Oral-Rat LD50 • 2600 mg/kg; Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation
Sodium chloride (1% TO 2%)	7647-14-5	Acute Toxicity: Ingestion/Oral-Rat LD50 • 3000 mg/kg; Irritation: Eye-Rabbit • 10 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation

GHS Properties

Classification

Acute toxicity	EU/CLP • Acute Toxicity - Oral 4 OSHA HCS 2012 • Acute Toxicity - Oral 4
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2

Route(s) of entry/exposure
Medical Conditions
Aggravated by Exposure
Potential Health Effects

- Inhalation, Skin, Eye, Ingestion
- Disorders of the lungs.

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Exposure to dust may cause mechanical irritation.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- Causes serious eye irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- Harmful if swallowed. Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Chronic (Delayed)

- No data available.

Key to abbreviations

LD = Lethal Dose

MLD = Mild

MOD = Moderate

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Section 12 - Ecological Information

12.1 Toxicity

94-97% Calcium Chloride Powder					
Dosage	Species	Duration	Results	Exposure Conditions	Comments
8350 to 10650 mg/L	Fish: Bluegill	NDA	LC50	NDA	Data for Calcium Chloride
759 to 3005 mg/L	Crustacea: Daphnia magna	NDA	EC50	NDA	Data for Calcium Chloride
= 4236 mg/L	Fish: Rainbow Trout	96 Hour(s)	LC50	NDA	Data for Potassium Chloride
= 590 mg/L	Crustacea: Daphnia magna	24 Hour(s)	EC50	NDA	Data for Potassium Chloride
= 3470 mg/L	Water Flea: Ceriodaphnia Dubia	96 Hour(s)	LC50	NDA	Data for Potassium Chloride
= 10610 mg/L	Fish: Fathead minnow	NDA	LC50	NDA	Data for Sodium Chloride
= 4571 mg/L	Crustacea: Daphnia magna	NDA	LC50	NDA	Data for Sodium Chloride

12.2 Persistence and degradability

- Biodegradation is not applicable.

12.3 Bioaccumulative potential

- No bioconcentration is expected because of the relatively high water solubility.

12.4 Mobility in Soil

- Potential for mobility in soil is very high (Koc between 0 and 50). Partitioning from water to n-octanol is not applicable.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- Material is practically non-toxic to aquatic organisms on an acute basis. (LC50/EC50/EL50/LL50 >100mg/L in the most sensitive species tested).

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/MDG	NDA	Not Regulated	NDA	NDA	NDA

IATA/CAO	NDA	Not Regulated	NDA	NDA	NDA
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14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Inventory						
Component	CAS	Australia AICS	Canada DSL	Canada NDSL	China	EU EINECS
Calcium chloride	10043-52-4	Yes	Yes	No	Yes	Yes
Potassium chloride	7447-40-7	Yes	Yes	No	Yes	Yes
Sodium chloride	7647-14-5	Yes	Yes	No	Yes	Yes
Inventory (Con't.)						
Component	CAS	EU ELNICS	Japan ENCS	Korea KECL	New Zealand	TSCA
Calcium chloride	10043-52-4	No	Yes	Yes	Yes	Yes
Potassium chloride	7447-40-7	No	Yes	Yes	Yes	Yes
Sodium chloride	7647-14-5	No	Yes	Yes	Yes	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Calcium chloride	10043-52-4	D2B Uncontrolled product according to WHMIS classification criteria (including 23.8%)
• Potassium chloride	7447-40-7	Uncontrolled product according to WHMIS classification criteria
• Sodium chloride	7647-14-5	

Canada - WHMIS - Ingredient Disclosure List

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

Germany

Environment**Germany - Water Classification (VwVwS) - Annex 1**

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Calcium chloride	10043-52-4	ID Number 220, hazard class 1 - low hazard to waters
• Potassium chloride	7447-40-7	ID Number 230, hazard class 1 - low hazard to waters
• Sodium chloride	7647-14-5	ID Number 270, hazard class 1 - low hazard to waters

Germany - Water Classification (VwVwS) - Annex 3

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Calcium chloride	10043-52-4	Not Listed
• Potassium chloride	7447-40-7	Not Listed
• Sodium chloride	7647-14-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Calcium chloride	10043-52-4	Not Listed
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