



# Safety Data Sheet

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## Section 01 Identification

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<b>Product Identifier</b>	Calcium Chloride (All grades) Calcium Chloride 77%, Flake Calcium Chloride 77%, Food Grade, Flake Calcium Chloride 83%, Flake Calcium Chloride 94% Food Grade Calcium Chloride High Test Beads Calcium Chloride High Test Fines Calcium Chloride High Test Powder
<b>Other Means of Identification</b>	Calcium dichloride
<b>Product Use and Restrictions on Use</b>	Industrial and commercial uses, drill mud additive
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7  Phone: 800.387.7503 Fax: 888.281.8109 <a href="http://www.cleartech.ca">www.cleartech.ca</a>
<b>Prepared By</b>	ClearTech Industries Inc. technical writer
<b>24-Hour Emergency Phone</b>	306.664.2522

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## Section 02 Hazard Identification

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### Physical Hazards

This product does not qualify for any physical hazard class under WHMIS 2015

### Health Hazards

**Acute toxicity - oral** Category 4

**Serious eye damage / eye irritation** Category 2

### Signal Word

**Warning**

### Hazard Statements

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

### Pictograms



## Precautionary Statements

### Prevention

- P264 Wash affected body parts thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves, eye protection, face protection.

### Response

- P301 P312 P330 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.  
P305 P351 P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.  
P337 P313

### Disposal

- P501 Dispose of contents / container in accordance with all federal, provincial and / or local regulations including the Canadian Environmental Protection Act.

## Hazards Not Otherwise Classified

Not available

## Supplemental Information

Not available

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## **Section 03 Composition / Information on Ingredients**

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### Hazardous Ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
Calcium dichloride	Calcium chloride	10043-52-4	75-100%

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## **Section 04 First-Aid Measures**

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### Description of necessary first-aid measures

- Inhalation** Get medical advice / attention if you feel unwell or are concerned.
- Ingestion** Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
- Skin contact** Rinse skin with lukewarm, gently flowing water / shower for 5 minutes or until product is removed. If skin irritation occurs or if you feel unwell: Get medical advice / attention.
- Eye contact** Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 15 to 20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice / attention.

### Most important symptoms and effects, both acute and delayed

- Inhalation** May cause respiratory irritation.
- Ingestion** Harmful if swallowed. Causes nausea and vomiting.
- Skin contact** Not available

**Eye contact** Causes serious eye irritation.  
**Further information** For further information see Section 11 Toxicological Information.

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## Section 05 Fire Fighting Measures

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**Suitable extinguishing media** Extinguish fire using extinguishing agents suitable for the surrounding fire.  
**Unsuitable extinguishing media** Water jets are not recommended in fires involving chemicals.  
**Specific hazards arising from the chemical** Not available  
**Special protective equipment for fire-fighters** Wear NIOSH-approved self-contained breathing apparatus and chemical-protective clothing.

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## Section 06 Accidental Release Measures

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**Personal Precautions / Protective Equipment / Emergency Procedures** Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area.  
**Environmental Precautions** Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.  
**Methods and Materials for Containment and Cleaning Up** Dry sweeping is not recommended. Pre-dampening the material or use of a vacuum is preferred. Shovel into clean, dry, labeled containers and cover. Flush area with water.

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## Section 07 Handling and Storage

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**Precautions for Safe Handling** Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.  
Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available.  
**Conditions for Safe Storage** Store in a cool, dry, well-ventilated area, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible.  
**Incompatibilities** Water, zinc, bromide trifluoride, 2-furan percarboxylic acid

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## Section 08 Exposure Controls and Personal Protection

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### Exposure limits

There are no known exposure limits for this product.

### Engineering controls

**Ventilation Requirements** Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.  
**Other** An eye wash bottle or eye wash station should be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations.

### Protective equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

<b>Eye and face protection</b>	Where there is potential eye or face exposure, tightly fitting chemical goggles are recommended.
<b>Hand and body protection</b>	Where handling this product it is recommended that skin contact is avoided.
<b>Respiratory protection</b>	In case of insufficient ventilation wear suitable respiratory equipment.
<b>Thermal hazards</b>	Not available

## Section 09 Physical and Chemical Properties

### Appearance

<b>Physical state</b>	Solid
<b>Colour</b>	White to off-white
<b>Odour</b>	Not available
<b>Odour threshold</b>	Not available

### Property

<b>pH</b>	Not applicable
<b>Melting point / freezing point</b>	~772 °C
<b>Initial boiling point and boiling range</b>	~1670 °C
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not available
<b>Flammability</b>	Not flammable
<b>Upper flammable limit</b>	Not available
<b>Lower flammable limit</b>	Not available
<b>Vapour pressure</b>	Not available
<b>Vapour density</b>	Not available
<b>Relative density</b>	2.2 g/cm <sup>3</sup>
<b>Solubility</b>	Soluble in water
<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	Not applicable
<b>Specific gravity</b>	Not applicable
<b>Particle characteristics</b>	Particle size: Not available Particle shape: Flakes, powder, or beads
<b>Formula</b>	CaCl <sub>2</sub>
<b>Molecular weight</b>	110.98 g/mol

## Section 10 Stability and Reactivity

<b>Reactivity</b>	Reacts with water to generate heat. Hygroscopic.
<b>Stability</b>	This product is stable if stored according to the recommendations in Section 07.

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<b>Possibility of hazardous reactions</b>	Not available
<b>Conditions to avoid</b>	Avoid contact with incompatible materials. Exposure to moisture and air.
<b>Incompatible materials</b>	Water, zinc, bromide trifluoride, 2-furan percarboxylic acid
<b>Hazardous decomposition products</b>	Not available

## Section 11 Toxicological Information

### Acute Toxicity (LD50 / LC50 values)

Component	Route	Species	Value	Exposure time
Calcium chloride	Oral	Mouse	1940-2045 mg/kg bw	
	Oral	Rat	3798-4179 mg/kg bw	
	Oral	Rabbit	500-1000 mg/kg bw	
	Dermal	Rabbit	>5000 mg/kg bw	

### Toxic Health Effect Summary

<b>Chemical characteristics</b>	No known effects
<b>Skin</b>	Irritation/corrosiveness studies conducted under OECD test guidelines indicate that calcium chloride is not/slightly irritating to skin
<b>Ingestion</b>	Harmful if swallowed. Causes nausea and vomiting.
<b>Inhalation</b>	May cause respiratory irritation.
<b>Eye contact</b>	Irritation/corrosiveness studies conducted under OECD test guidelines indicate that calcium chloride is severely irritating to eyes of rabbits.
<b>Sensitization</b>	This product and its components at their listed concentration have no known sensitizing effects.
<b>Mutagenicity</b>	This product and its components at their listed concentration have no known mutagenic effects.
<b>Carcinogenicity</b>	This product and its components at their listed concentration have no known carcinogenic effects.
<b>Reproductive toxicity</b>	This product and its components at their listed concentration have no known reproductive effects.
<b>Specific organ toxicity</b>	This product and its components at their listed concentration have no known effects on specific organs.
<b>Aspiration hazard</b>	Not available
<b>Synergistic materials</b>	Not available

## Section 12 Ecological Information

### Ecotoxicity

Component	Type	Species	Value	Exposure Time
Calcium chloride	EC50	Selenastrum capricornutum	2900 mg/L	72 hours
	EC50	Daphnia magna	1062 mg/L	48 hours
	LC50	Pimephales promelas	4630 mg/L	96 hours

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<b>Biodegradability</b>	The domestic substance list categorizes calcium chloride as persistent.
<b>Bioaccumulation</b>	The domestic substance list categorizes calcium chloride as non-bioaccumulative.
<b>Mobility</b>	This product is water soluble, is not predicted to adsorb to soil and may contaminate ground water.
<b>Other adverse effects</b>	Not available

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## Section 13 Disposal Considerations

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<b>Waste From Residues / Unused Products</b>	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

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## Section 14 Transport Information

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<b>UN number</b>	This product does not meet the definition of dangerous goods per Part 2 of Transport of Dangerous Goods Regulations
<b>UN proper shipping name and description</b>	Not available
<b>Transport hazard class(es)</b>	Not available
<b>Packing group</b>	Not available
<b>Excepted quantities</b>	Not available
<b>Environmental hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
<b>Special precautions</b>	No special precautions
<b>Transport in bulk</b>	ERAP index: not available
<b>Additional information</b>	MARPOL 73/78 and IBC Code: Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

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## Section 15 Regulatory Information.

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**NOTE: THE PRODUCT LISTED ON THIS SAFETY DATA SHEET HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN HAZARDOUS PRODUCTS REGULATIONS. THIS SAFETY DATA SHEET CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

All components of this product appear on the domestic substance list.

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## Section 16 Other Information

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**Date of latest revision: June 01, 2023**

**Note:** The responsibility to provide a safe workplace remains with the buyer / user. The buyer / user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

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**Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the RDC Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

**References:**

- 1) *NIOSH Pocket Guide to Chemical Hazards*; U.S. Department of Health and Human Services, <https://www.cdc.gov/niosh/npg/default.html>
- 2) *WorkSafe BC E-Limit*; Workers' Compensation Foard of British Columbia, <https://elimit.online.worksafebc.com/>
- 3) *ECHA - Registered Substance Dossier*; European Chemicals Agency, <https://echa.europa.eu/registration-dossier/-/registered-dossier/15461>
- 4) *Transportation of Dangerous Goods Regulations*; Transport Canada, <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/index.html>
- 5) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) *Seventh revised edition*
- 6) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) 2007 Edition
- 7) The ACS Style Guide