



Safety Data Sheet

Section 01 Identification

Product Identifier	Calcium Chloride (All grades) Calcium Chloride High Test Fines Calcium Chloride 77%, Flake Calcium Chloride 77%, Food Grade, Flake Calcium Chloride 83%, Flake Calcium Chloride High Test, Beads
Other Means of Identification	Calcium dichloride
Product Use and Restrictions on Use	Industrial uses, drill mud additive
Initial Supplier Identifier	ClearTech Industries Inc 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7 Phone: 800.387.7503 Fax: 888.281.8109 www.cleartech.ca
Prepared By	ClearTech Industries Inc. technical writer
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Section 02 Hazard Identification

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, protective clothing, 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

Section 03 Composition / Information on Ingredients

Hazardous Ingredients:

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

Section 04 First-Aid Measures

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.

Section 05 Fire Fighting Measures

Suitable extinguishing media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable extinguishing media	Not available
Specific hazards arising from the chemical	Contact with water will generate heat.
Special protective equipment for fire-fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Section 06 Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.
Environmental Precautions	Prevent material from entering 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, labelled containers and cover. Flush area with water.

Section 07 Handling and Storage

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. Avoid generating dust. Prevent the release of dust into the workplace air. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight, 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

Section 08 Exposure Controls and Personal Protection

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 must 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 must be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations.
<u>Protective equipment</u>	
Eye and face protection	Where there is potential eye or face exposure, tightly fitting chemical goggles are recommended.
Hand and body protection	Where handling this product it is recommended that skin contact is avoided.
Respiratory protection	Where there is potential for exposure beyond the stated exposure limits or is irritating to workers, a respirator with cartridges rated for the product in question are recommended. Consult the respirator / cartridge manufacturer for advice when starting or maintaining a respirator program.
Thermal hazards	Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state	Flakes, powder, or beads
Colour	White to off-white
Odour	Not available
Odour threshold	Not available

Property

pH	Not applicable
Melting point / freezing point	~772 °C
Initial boiling point and boiling range	~1670 °C
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Not flammable
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	2.2 g/cm ³
Solubility	Soluble in water

Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not applicable
Specific gravity	Not applicable
Formula	CaCl ₂
Molecular weight	110.98 g/mol

Section 10 Stability and Reactivity

Reactivity	Reacts with water to generate heat. Hygroscopic.
Stability	This product is stable if stored according to the recommendations in Section 07.
Possibility of hazardous reactions	Not available
Conditions to avoid	Contact with incompatible materials. Exposure to moisture and air.
Incompatible materials	Water, zinc, bromide trifluoride, 2-furan percarboxylic acid
Hazardous decomposition products	Not available

Section 11 Toxicological Information

Acute Toxicity (LD50 values)

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

Toxic Health Effect Summary

Chemical Characteristics	No known effects
Skin	Irritation/corrosiveness studies conducted under OECD test guidelines indicate that calcium chloride is not/slightly irritating to skin
Ingestion	Harmful if swallowed.
Inhalation	May cause respiratory irritation.
Eye contact	Irritation/corrosiveness studies conducted under OECD test guidelines indicate that calcium chloride is severely irritating to eyes of rabbits.
Delayed and Chronic	This product and its components at their listed concentration have no known carcinogenic, mutagenic, reproductive or sensitization effects.

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

Biodegradability	This product contains inorganic salts that are already present in the environment.
Bioaccumulation	This product is not expected to bioaccumulate.
Mobility	This product is water soluble, and will not adsorb to soil and may contaminate ground water.
Other adverse effects	Not available

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	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.

Section 14 Transport Information

UN number	Not available
UN proper shipping name	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available
Environmental hazards	
Special precautions	Not available
Transport in bulk	Not available
Additional information	Secure containers (full or empty) with suitable hold down devices 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.

Section 15 Regulatory Information

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.

Section 16 Other Information

Date of latest revision: March 29, 2019

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.

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) CHEMINFO
- 2) TOXNET
- 3) eChemPortal
- 4) ECHA
- 5) Transportation of Dangerous Goods Canada
- 6) HSDB
- 7) PAN