Safety Data Sheet

Product Identifier

Manufacturer's Name: CAPO INDUSTRIES LTD.
Street Address: 1200 Corporate Drive
City: Burlington, Ontario, CANADA
Postal Code: L7L 5R6

Emergency Telephone: Canutec (613) 996-6666 (Collect)(Transport)

SECTION 1. IDENTIFICATION

Product Identifier	Cal Rise – Calcium Up
Other Means of Identification	Calcium Chloride
Recommended Use	Hardness Booster
Restrictions on Use	Not available
Initial Supplier Identifier	Capo Industries Ltd.
Emergency Telephone Number	(905) 332-6626 (Non-Transport)

SECTION 2. HAZARD IDENTIFICATION

GHS Classification

Acute toxicity, Oral, Category 4
Eye irritation, Category 2A

Label Elements

Signal Word: Warning

Hazard Statements:

H302 Harmful if swallowed.
H319 Causes serious eye irritation.

Precautionary Statements:

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P317 IF SWALLOWED: Get medical help.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 Rinse mouth.
P337+P317 If eye irritation persists: Get medical help.
P501 Dispose of contents/container in accordance with all local regulations.

Other Hazards

- Calcium Chloride is hygroscopic and is capable of absorbing moisture from the air to become liquid. Chlorides in the presence of water and oxygen are associated with the accelerated corrosion of common metals, such as steel, copper, and brass.
- Calcium Chloride has an exothermic heat of solution and solid products release a large amount of heat when dissolved in water.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Common name / Synonyms
Calcium Chloride	10043-52-4	83 – 87	Not available
Water	7732-18-5	8 – 14	Not available
Potassium Chloride	7447-40-7	2 – 3	Not available
Sodium Chloride	7647-14-5	1 – 2	Not available

Notes
Potassium chloride and sodium chloride are impurities from the naturally occurring source material, brine solution.

SECTION 4. FIRST-AID MEASURES

Inhalation
Remove person to fresh air and keep comfortable for breathing. If breathing is difficult get medical help.

Skin Contact
Flush skin with running water for 20 minutes. If irritation persists, repeat flushing. Get medical help. Take off contaminated clothing and wash it before reuse.

Eye Contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical help.

Ingestion Rinse mouth. Do not induce vomiting. Get medical help if you feel unwell.

Most Important Symptoms and Effects, Acute and Delayed
Causes serious eye irritation with redness and burning. Direct contact with abraded skin may cause erythema and burns. Inhalation of dust may cause upper respiratory tract irritation.

Immediate Medical Attention and Special Treatment
Due to irritant properties, resulting from heat created as solid material dissolves in water, swallowing may result in burns/ulceration of mucous membranes. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media	Use water, dry chemical, CO_2, or foam to extinguish.
Unsuitable Extinguishing Media	Not available

Specific Hazards Arising from the Product
Avoid direct contact of this product with water as this can cause an exothermic reaction.

Special Protective Equipment and Precautions for Fire-Fighters
Keep unnecessary people away, isolate hazard area and deny entry. This material does not burn. Fight fire for other material that is burning. Water should be applied in large quantities as fine spray. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode. Wear protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Isolate area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard on some surfaces. Use appropriate safety equipment. Contain spill if safe to do so. Prevent spill from entering sewers or water courses.

Methods for Containment and Cleaning Up
Collect spilled material in suitable and properly labeled containers. Flush with plenty of water.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid contact with eyes, skin, and clothing. Wash skin and contaminated clothing thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves, protective clothing, and eye protection when handling. Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80°F, 27°C).

Conditions for Safe Storage
Store in a cool, dry place. Protect from atmospheric moisture. Keep container tightly closed. Keep separated from incompatible substances.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Exposure Limits Canada TWA's (Ontario) Calcium Chloride: 5 mg/m^3

Appropriate Engineering Controls
Local exhaust ventilation. Ensure eye wash and shower stations are close to work area.

Individual Protection Measures

Eye/Face Protection	Safety glasses if eye contact is likely.
Skin Protection	Latex or rubber gloves if prolonged skin contact is likely.
Respiratory Protection	Wear appropriate dust mask if prolonged use in non-ventilated area is unavoidable.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Opaque white flakes
Odour	Odourless
Odour Threshold	No data available
pH	8 – 10 (5% solution)
Melting Point and Freezing Point	772^{o}C (1422^{o}F)
Initial Boiling Point and Boiling Range	1935^{o}C (3515^{o}F)
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable

Upper and Lower Flammability or Explosive Limit Not applicable

Vapour Pressure	Negligible at ambient temperature.
Vapour Density (air = 1)	Not applicable
Bulk Density	850 – 900 kg/m^3
Solubility in Water	Soluble
Solubility in Other Liquids	No data available

Partition Coefficient, n-Octanol / Water (Log Kow) No data available

Auto-ignition Temperature Not applicable

Decomposition Temperature Not applicable

Viscosity Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity Hygroscopic. Liberates large amounts of heat when dissolving in water or aqueous acids.

Chemical Stability Stable at normal temperatures and pressures.

Possibility of Hazardous Reactions Avoid moisture.

Conditions to Avoid Avoid excessive amounts of heat.

Incompatible Materials
Avoid contact with: Bromide trifluoride, 2-furan percarboxylic acid because calcium chloride is incompatible with those substances. Contact with zinc forms flammable hydrogen gas, which can be explosive. Catalyzes exothermic polymerization of methyl vinyl ether. Attacks metals in the presence of moisture and may release flammable hydrogen gas. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromates.

Hazardous Decomposition Products
Thermal decomposition products are toxic and may include Hydrochloric acid and oxides of calcium and chlorine oxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

X Inhalation **X** Skin contact **X** Eye contact **X** Ingestion

Acute Toxicity

LC_{50} (Inhalation) ATE mix: No data available

LD_{50} (Oral) ATE mix: 1126 mg/kg, Oral

LD_{50} (Dermal) ATE mix: 2637 mg/kg, Dermal

Ingestion
Low toxicity if swallowed. Small amounts swallowed are not likely to cause injury. Large amounts swallowed may cause local mucosal damage to esophagus and stomach. Swallowing may result in gastrointestinal irritation or ulceration.
Inhalation Dust may cause irritation to upper respiratory tract (nose and throat).

Skin Corrosion / Irritation
Direct contact with abraded skin may cause erythema and burns. Prolonged contact and occlusion may cause more severe symptoms.

Serious Eye Damage / Irritation Severe irritation. May cause corneal damage and conjunctivitis.

STOT (Specific Target Organ Toxicity) - Single Exposure No data available

Aspiration Hazard No data available

STOT (Specific Target Organ Toxicity) - Repeated Exposure No data available

Respiratory and/or Skin Sensitization Not sensitizing to skin or respiratory tract.

Carcinogenicity This product is not classified as a carcinogen by NTP, IARC or OSHA.

Reproductive Toxicity

Development of Offspring None known

Sexual Function and Fertility None known

Effects on or via Lactation None known

Germ Cell Mutagenicity None known

Interactive Effects None known

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Fish Toxicity:
LC50 (96 hr), bluegill (Lepomis macrochirus): >9500 - 13400 mg/l
LC50 (96 hr), fathead minnow (Pimephales promelas): 4630 mg/l

Invertebrate Toxicity:
EC50 (48 hr), Daphnia magna: 2800 mg/l
NOEC (21 days), Daphnia magna: 230 mg/l

Fate and Transport

Persistence
Calcium chloride is believed not to persist in the environment because it is readily dissociated into calcium and chloride ions in water. Calcium chloride released into the environment is thus likely to be distributed into the water in the form of calcium and chloride ions. Calcium ions may remain in soil by binding to soil particulate or by forming stable salts with other ions. Chloride ions are mobile and eventually drain into surface water. Both ions originally exist in nature, and their concentrations in surface water will depend on various factors, such as geological parameters, weathering, and human activities.

Biodegradation This material is inorganic and not subject to biodegradation.

Bioconcentration
No bioconcentration is expected because of the relatively high water solubility. Potential for mobility in soil is very high (Koc between 0 and 50). Partitioning from water to n-octanol is not applicable.

Bioaccumulative Potential
Calcium chloride and its dissociated forms (calcium and chloride ions) are ubiquitous in the environment. Calcium and chloride ions can be found as constituents in organisms. Considering its dissociation properties, calcium chloride is not expected to accumulate in living organisms.

Mobility in Soil
Calcium chloride is not expected to be absorbed in soil due to its dissociation properties and high water solubility. It is expected to dissociate into calcium and chloride free ions, or it may form stable salts with other ions, leading to different fates between calcium and chloride ions in soil and water components. Calcium ions may bind to soil particulate or may form stable inorganic salts with sulfate and carbonate ions. The chloride ion is mobile in soil and eventually drains into surface water because it is readily dissolved in water.

Other Adverse Effects No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Waste Disposal: Dispose material in accordance with Federal, Provincial, and local government regulations. Do not dispose of wastes in local sewer or with normal refuse.
Safe Handling of Residues: Flush residue with plenty of water.
Disposal of Packaging: Dispose of container in accordance with Federal, Provincial, and local government regulations. Container rinsate must be disposed of in compliance with applicable regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group
TDG	Not Regulated				
US DOT	Not Regulated				

Special Precautions None

Environmental Hazards None

SECTION 15. REGULATORY INFORMATION

Safety, Health, and Environmental Regulations

CANADA
DSL/NDSL: All components of this product are listed on either the DSL or the NDSL.

USA
TSCA (Toxic Substances Control Act): All components are listed on the TSCA.
California Proposition 65: This product is not listed on the California Governor's current list of Carcinogens, Reproductive Toxicants, and/or Candidate Carcinogens (Proposition 65).

SECTION 16. OTHER INFORMATION

Prepared By (Group, Department): Quality Assurance **Telephone:** (905) 332-6626

Preparation Date: January 1, 1996
Date of Latest Revision: April 18, 2022
Additional Notes or References:

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