

SAFETY DATA SHEET

SECTION 1

MATERIAL NAME / IDENTIFIER

Cal Plus – Calcium Up

WHMIS: D2B

Manufacturer's Name: CAPO INDUSTRIES LTD
Street Address: 1200 CORPORATE DRIVE
City: BURLINGTON, ONTARIO
Postal Code: L7L 5R6

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

Chemical Name: Calcium Chloride
Chemical Family: Chlorides
Chemical Formula: $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$
Trade Name & Synonyms: Not Available
Molecular Weight: Not Applicable
Material Use: Hardness Booster

SECTION 2

HAZARDS IDENTIFICATION

GHS classification: Acute toxicity, Oral, Category 5
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 2B

Symbol(s)



Signal Word: Warning

Hazard statements: H303 May be harmful if swallowed.
H315 Causes skin irritation and serious eye irritation.
H320 Causes eye irritation.

Precautionary statements: P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see first aid on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

NFPA: 1 Health, 0 Fire, 0 Reactivity

HMS: 2 Health, 0 Fire, 0 Reactivity

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient	CAS#	% Concentration
Calcium Chloride	10043-52-4	83 - 87
Water	7732-18-5	8 – 14
Potassium Chloride	7747-40-7	2 - 3
Sodium Chloride	7647-14-5	1 – 2

SECTION 4 FIRST AID MEASURES

Inhalation: Remove person to fresh air. Contact a physician immediately.

Skin Contact: Flush skin with running water for 20 minutes. If irritation persists, repeat flushing. Contact a physician if irritation or a burning sensation develops.

Eye Contact: Immediately flush eyes with plenty of water for 20 minutes. If irritation persists, repeat flushing. Contact a physician immediately.

Ingestion: Drink ½ to 1 glass of water to dilute. Immediately contact a physician or poison control centre. Vomiting Should only be induced under the direction of a physician or poison control centre. If spontaneous vomiting occurs have victim lean forward with head down to avoid breathing in of vomitus. Transport victim to an emergency facility.

Note to physicians: 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.

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SECTION 5

FIRE – FIGHTING MEASURES

- Hazardous Combustion Products:** Formed under fire conditions: hydrogen chloride gas, calcium oxide.
- Unusual Fire or Explosion Hazards:** None known.
- Sensitivity to Mechanical Impact:** None
- Rate of Burning:** None
- Explosive Power:** None
- Sensitivity to Static Discharge:** None
- Fire Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.
- Instructions to the 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.
- Fire Fighting Protective Equipment:** 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

- Leak And Spill Procedure:** Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water.

SECTION 7

HANDLING AND STORAGE

HANDLING

- Handling Practices:** Avoid contact with eyes, skin and clothing. Do not swallow. Wash thoroughly after handling.
- Ventilation Requirements:** Local exhaust ventilation.
- Other Precautions:** Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80°F, 27°C).

STORAGE

- Ventilation Requirements:** Store in a cool, dry environment.
- Storage Requirements:** Protect from atmospheric moisture. Keep container tightly closed. Keep separated from incompatible substances.

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SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Engineering Controls: Local exhaust ventilation if dusty conditions are encountered.

PERSONAL PROTECTIVE EQUIPMENT

Skin (Specify): Latex or rubber gloves if prolonged skin contact is likely.

Eye (Specify): Safety glasses if eye contact is likely.

Respiratory (Specify): Wear appropriate dust mask if prolonged use in non-ventilated area is unavoidable.

Other (Specify): Safety showers and eye wash located close to chemical exposure area.

SECTION 9

PHYSICAL DATA FOR MATERIAL

Physical State: Gas Liquid Solid X

Odour & Appearance: Opaque, white granular, odourless

Odour Threshold (ppm): Not applicable

Flammability: Yes No X

If Yes, Under Which Conditions?:

Auto Ignition Temperature (Celsius): Not applicable

Upper Explosion Limit (% By Volume): Not applicable

Lower Explosion Limit (% By Volume): Not applicable

Decomposition Temp (°C) Not applicable

Specific Gravity: 2.2

Viscosity: Not applicable

Vapour Pressure (mm): <0.005

Vapour Density (Air-1): Not applicable

Flashpoint (°C) Not applicable

Evaporation Rate Not applicable

Boiling Point (°C): Above 815°C

Freezing Point (°C): 772°C

Solubility In Water (20°C): Soluble

% Volatile (By Weight) Not applicable

PH: 7.40 (1% solution)

Coefficient Of Water/Oil Distribution: Not applicable

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SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:	Yes	<input checked="" type="checkbox"/>	No
If No, Under Which Conditions?:			
Incompatibility To Other Substances:	Yes	<input checked="" type="checkbox"/>	No
If So, Which Ones:	Lewis or mineral acids, sodium, methyl vinyl, ether and zinc as in Galvanized iron. Hydrogen gas may be produced on prolonged contact With metals such as aluminum, lead, tin and zinc.		
Conditions to Avoid:	Avoid excessive amounts of heat.		
Hazardous Decomposition Products:	Thermal decomposition products are toxic and may include Hydrochloric acid and oxides of calcium and chlorine oxide.		

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS

- Inhalation:** Dust may cause irritation to upper respiratory tract (nose and throat). Irritant of mucous membranes
May cause coughing and sneezing.
- Skin Contact:** Prolonged and repeated skin contact may cause irritation.
- Eye Contact:** Severe irritation. May cause corneal damage and conjunctivitis.
- Ingestion:** Causes gastrointestinal upset and abdominal pain, possible nausea.
- Other Health Effects:** None known.

CHRONIC HEALTH EFFECTS:

Chronic exposures to calcium chloride that cause irritation may cause a chronic dermatitis or mucosal membrane problem. For the minor component(s): **Potassium Chloride:** In animals, effects have been reported on the following organs after ingestion: Gastrointestinal tract, heart and kidney. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. **Sodium Chloride:** Medical experience with sodium chloride has shown a strong association between elevated blood pressure and prolonged dietary overuse. Related effects could occur in the kidneys.

LD 50 of Material (Specify Species and Routes)

- Calcium Chloride: LD 50, Oral 1000 mg/kg (Rat), Dermal 2630 mg/kg (Rat)
Potassium Chloride: LD 50, Oral 2600 mg/kg (Rat)
Sodium Chloride: LD 50, Oral 3 g/kg (Rat), Dermal 10 g/kg (Rabbit)

LC 50 of Material (Specify Species and Routes)

- Calcium Chloride: LC 50, Inhalation, no data
Potassium Chloride: LC 50, Inhalation, no data

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Sodium Chloride: LC 50, Inhalation 42 g/m³ (1hr-Rat)

Exposure (Limits): ACGIH TWA 10mg/m³ (Inhalable), 3mg/m³ (Respirable),
OSHA PEL/TWA 15mg/m³ (Total), 5mg/m³ (Respirable)

Irritancy of Material Skin, eye and nose irritant.

Sensitization of Material None known

Synergistic Materials None known

Carcinogenicity, Mutagenicity, Reproductive Effects, Teratogenicity: None known

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

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).

Freshwater Fish Toxicity:

Calcium Chloride: LC₅₀, bluegill (*Lepomis macrochirus*): 8350 – 10650 mg/l

Potassium Chloride: LC₅₀, rainbow trout (*Oncorhynchus mykiss*), 96 h: 4236 mg/l

Sodium Chloride: LC₅₀, fathead minnow (*Pimephales promelas*): 10610 mg/l

Invertebrate Toxicity:

Calcium Chloride: LC₅₀, water flea *Daphnia magna*: 759 – 3005 mg/l

Potassium Chloride: EC₅₀, water flea *Daphnia magna*, 24 h, immobilization: 590 mg/l,

LC₅₀, water flea *Ceriodaphnia dubia*, 96 h: 3470 mg/l

Sodium Chloride: LC₅₀, water flea *Daphnia magna*: 4571 mg/l

Other Toxicity:

Sodium Chloride: IC₅₀, OECD 209 Test; activated sludge, respiration inhibition: > 1000 mg/l

FATE AND TRANSPORT:

Biodegradation: This material is inorganic and not subject to biodegradation.

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.

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

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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.

SECTION 13 DISPOSAL CONSIDERATIONS

- 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 TRANSPORTATION INFORMATION

CANADIAN TDG ACT SHIPPING DESCRIPTION:

Transportation of Dangerous Goods: Not regulated

US DOT CLASSIFICATION (49CFR 172.101, 172.102)

U.S. DOT 49 CFR 172.101: Not regulated

SECTION 15 REGULATORY INFORMATION

CANADA

All components of this product are listed on either the DSL or the NDSL

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USA

Toxic Substance Control Act (TSCA):

All components are listed on the TSCA.

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INTERNATIONAL

All components are listed on the AICS, IECS, NZIOC, and PICCS chemical inventory.

SECTION 16

OTHER INFORMATION

Prepared By (Group, Department, Etc.): Quality Control Telephone: (905) 332-6626

Preparation Date: January 1, 1996

Date Revised: December 1, 2016

Additional Notes Or References:

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