

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:

TRADE NAME: CAL-QUIK

1.2 RECOMMENDED USE: CALCIUM FOR AGRICULTURAL USE

1.3 SUPPLIER DETAILS:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

1.4 24-Hour Emergency Phone: 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 - **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Skin Corrosion/Irritation	Category 2	H315
Eye Damage/Irritation	Category 2B	H320
Acute Toxicity – Oral	Category 4	H302

2.2 Label elements



Signal word:	WARNING
Hazard Statement:	H315 – Causes skin irritation. H320 – Causes eye irritation. H302 – Harmful if swallowed.
Precautionary Statement: (Prevention):	P264 – Wash hands and face thoroughly after handling. P280 – Wear protective gloves/protective clothing/eye protection/face protection. P270 – Do not eat, drink or smoke when using this product.
Precautionary Statement: (Response):	P302+P352 – IF ON SKIN: Wash with plenty of soap and water. P321 – Specific treatment (see First Aid information on the product label). P332+P313 – If skin irritation occurs: Get medical advice/attention. P362 – Take of contaminated clothing as wash it before reuse. 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: Call a POISON CENTER or doctor/physician if you feel unwell. P330 – Rinse mouth.
Precautionary Statement: (Disposal):	P501 – Dispose of contents and container in accordance with applicable local, regional, and national regulations.

Unknown Acute Toxicity: a percentage of this product consists of ingredient(s) of unknown acute toxicity.
Unknown Acute Dermal Toxicity: 3% of this product consists of ingredient(s) of unknown acute dermal toxicity.

2.3 Other hazards

None known



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3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

Classification according to 29 CFR 1910.1200

3.2 Mixtures

Chemical Name:	CAS No.	Concentration [%]
Calcium Chloride	10043-52-4	> 94 - < 97
Potassium Chloride	7447-40-7	> 2 - < 3
Sodium Chloride	7647-14-5	> 1 - < 2
Calcium Bromide	7789-41-5	< 1
Water	7732-18-5	< 1

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

Eye contact:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Ingestion:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Skin contact:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms:

Inhalation: Inhaling dust may cause irritation to the upper respiratory tract (nose and throat). Nasal mucosal and oropharyngeal erythema.

Skin: Skin irritation from direct abrasion of skin from the solid, erythema and burns from reaction with water. Prolonged contact and occlusion may cause more severe symptoms. Damage is localized to contact areas.

Eye: Eye irritation from direct abrasion of the cornea from solid, erythema and burn from reaction with water, conjunctival swelling and corneal opacification from hypertonic solution and heat. Corneal eye pain, redness, acute corneal thickening or whitening.

Ingestion: Consumption of solids or of hypertonic solutions causes nausea, vomiting, and increased thirst.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed. Chronic exposures to skin and mucous membranes that cause irritation may cause a chronic dermatitis or mucosal membrane problem.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Take container, label or product name with you when seeking medical attention.

NOTES TO PHYSICIAN:

Due to irritant properties resulting from heat created as solid material dissolves in water, swallowing may result in burns/ulceration of the 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.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media:

Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO₂), foam, water spray or fog. Do not use water jet as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting:

During a fire, hydrogen chloride gas and calcium oxide may be formed.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters:

Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



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6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: 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. For additional information, refer to Section 8, **Exposure Controls/Personal Protection**. Refer to Section 7, Handling, for additional precautionary measures.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses. See Section 12, Ecological Information.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Small and large Spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue thoroughly with water. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80 °F, 27°C). Avoid contact with eyes, skin, and clothing. Do not swallow. Wash thoroughly after handling. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in a dry place. Protect from atmospheric moisture. Keep container tightly closed. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
Particulates Not Otherwise Regulated	TWA	15 mg/m ³ (Total Dust) 5 mg/m ³ (Respirable)

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
Particulates Not Otherwise Regulated	TWA	10 mg/m ³ (Inhalable) 3 mg/m ³ (Respirable)

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		



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8.2 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Wear long sleeved shirt and long pants. Routinely wash work clothing and protective equipment to remove contaminants. The use of impervious gloves is recommended when handling undiluted product. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Respiratory Protection: Not normally required. In case of inadequate ventilation or risk of inhalation of dusts or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-21C or NIOSH approved respirator with HEPA N95 filter. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE :	Pellets
COLOR:	White.
ODOR THRESHOLD:	No data available.
ODOR:	Odorless.
pH:	No data available
FREEZING POINT:	Not applicable to solids.
MELTING POINT:	772 °C (1,422 °F)
BOILING POINT:	Not applicable to solids.
FLASH POINT:	Does not flash.
FLAMMABILITY (solid, gas):	No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No data available.
VAPOR PRESSURE:	No data available.
SOLUBILITY:	Soluble
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY, dynamic:	No data available
SPECIFIC GRAVITY (Water = 1):	0.832 - 0.929 g/ml
BULK DENSITY:	52 - 58 lbs. /ft ³ / 832.9 – 929 kg/m ³

Note: These physical data are typical values based on material tested but may vary from sample to sample.
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

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

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No reactions known under normal use conditions. Avoid moisture. Will not polymerize.

10.4 CONDITIONS TO AVOID

Moisture.

10.5 INCOMPATIBLE MATERIALS

Heat is generated when mixed with water or aqueous acids. Spattering and boiling can occur. 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.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride gas and calcium oxide are formed under fire conditions.



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11. TOXICOLOGICAL INFORMATION

11.1 LIKELY ROUTES OF EXPOSURE

Eye contact, skin contact, ingestion.

LC₅₀ (rat): 42 g/m³ (1 HR)

LD₅₀ Oral (rat): 1000 mg/kg (Calcium Chloride); 2600 mg/kg (Potassium Chloride); 3 g/kg (Sodium Chloride [Rabbit]); 2447 mg/kg (Calcium Bromide)

LD₅₀ Dermal (rat): 2630 mg/kg (Calcium Chloride); 10 g/kg (Sodium Chloride [Rabbit])

Oral Acute Toxicity Estimates: 1021 mg/kg

Dermal Acute Toxicity Estimates: 2687 mg/kg

Skin Irritation (rabbit): May cause irritation if skin is damp or abraded (scratched or cut).

Eye Irritation (rabbit): May cause slight eye irritation due to mechanical injury.

Specific Target Organ Toxicity: Single exposure: No data available.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: No data available

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

12. ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicological Data

Components	Species	Test Results
Calcium Chloride	Lepomis macrochirus	8,350 – 10,650 mg/l – 96-hour LC ₅₀
	Daphnia magna	759 – 3,005 mg/l – 48-hour EC ₅₀
Potassium Chloride	Oncorhynchus mykiss	4,236 mg/l – 96-hour LC ₅₀
	Daphnia magna	1,180 mg/l – 48-hour EC ₅₀
Sodium Chloride	Pimephales promelas	10,610 mg/l – 96-hour LC ₅₀
	Daphnia magna	4,571 mg/l – 48-hour EC ₅₀

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: 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 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.

12.3 BIOACCUMULATIVE POTENTIAL

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

12.4 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 inorganic or organic salts with other counter 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.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.



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13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Do not reuse empty bag. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

14.1 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED.

U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI, DRY (NMFC 68140, SUB 6; CLASS 70)

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA		HMIS	
1	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe
		B	PPE

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:	Immediate	<u>Y</u>	Fire	<u>N</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>N</u>	Reactive	<u>Y</u>		

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Not listed

RCRA Waste Code: Not listed

CA Proposition 65: Not applicable

16. OTHER INFORMATION

SDS STATUS: Format revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety



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