



# Liquid Calcium Chloride

## Material Safety Data Sheet

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White Plains, NY 10603

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### Emergency Overview

**Appearance:** Clear to slightly turbid liquid

**Odor:** No odor

#### WARNING:

Avoid direct contact with skin, eyes, or clothing. Avoid breathing mist. Use good personal hygiene and house-keeping. Keep container closed. Protect from physical damage. Do not store in metals which this solution corrodes.

### Hazard Rankings

	HMIS	NFPA
Health Hazard	0	0
Fire Hazard	0	0
Flammability	0	0
Reactivity	0	0

### Protective Equipment

Minimum Recommended  
See Section 8 for Details

This recommendation reflects  
minimum PPE



## SECTION 1. PRODUCT IDENTIFICATION

**Trade Name:** Liquid Calcium Chloride      **Technical Contact:** (914) 949-2000  
**Medical Emergency:** (800) 424-9300

**CAS Number:** 10043-52-4      **CHEMTREC Emergency:** (800) 424-9300  
**(United States Only)**

**Synonyms:** Calcium Chloride Aqueous Solution.

## SECTION 2. COMPOSITION

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Component Name(s)	CAS Registry No.	Concentration (%)
Liquid Calcium Chloride	10043-52-4	20-45

## SECTION 3. HAZARDS IDENTIFICATION

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**Major Route(s) of Entry:** Inhalation, Skin, Eyes, Ingestion.

### Signs and Symptoms of Acute Exposure

- Eye Contact:** May irritate or burn eyes. Flush with water for 15 minutes.
- Skin Contact:** May cause skin irritation. Under conditions of prolonged contact or when moisture is present, superficial burns may result. Contact with abraded or broken skin can cause severe necrosis.
- Inhalation:** Mist inhalation may irritate nose, throat, and lungs. May cause nosebleeds.
- Ingestion:** Low in toxicity. LD<sub>50</sub> (rat): 1.4 g/kg (anhydrous basis). May irritate gastrointestinal tract, cause nausea and vomiting.

### Medical Conditions Aggravated By Exposure:

None known.

### Other Health Warnings

Get medical attention for irritation, ingestion, or discomfort from inhalation.

## SECTION 4. FIRST AID MEASURES

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**Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid.**

- Eye Contact:** Flush promptly with water, continuing for at least 15 minutes. Get medical attention.
- Skin Contact:** Wash with plenty of water.
- Inhalation:** Remove to fresh air.
- Ingestion:** If conscious, immediately give 2 to 4 glasses of water, and induce vomiting by touching finger to back of throat.

## SECTION 5. FIRE FIGHTING MEASURES

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**NFPA Flammability Classification** NA

**Flash Point** NA

**Lower Flammable Limit** NA **Upper Flammable Limit** NA

**Special Fire Fighting Procedures** None

**Extinguishing Media** This product is nonflammable. Use any agent suitable for the surrounding fire.

**Unusual Fire Fighting Procedures** None

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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**Protective Measures** None

**Spill Management** Dilute small spills cautiously with plenty of water. Mop into metal drum and cover. Many metals are slowly corroded by these solutions. Cautiously spray residue with plenty of water. For large spills, dike up with any available absorbent (commercial, sand, etc.). Pump into same containers and treat as above.

**Reporting** None

## SECTION 7. HANDLING AND STORAGE

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**Handling** Avoid direct contact with skin, eyes, or clothing. Avoid breathing mist. Use good personal hygiene and housekeeping.

**Storage** Keep container closed. Protect from physical damage. Do not store in metals which this solution corrodes.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Engineering Controls** None

**Personal Protective Equipment**

Use of gloves, boots, and long sleeved shirts and pants is required to avoid contact with skin. Use splash goggles when eye contact may occur. Minimize breathing vapor, mists, or fumes. For misty condition, wear NIOSH approved mist respirator.



**Eye Protection**

For misty condition, or when handling solution where there is reasonable probability of eye contact, wear chemical safety goggles and hat. Under these conditions, do not wear contact lenses.

**Hand Protection**

Impervious gloves are recommended.

**Ventilation**

Use local exhaust to capture fumes when handling hot product in confined spaces. Respirator not generally required.

**Body Protection**

As a minimum, wear long-sleeved shirt and trousers, impervious boots, gloves and apron, for routine product use.

**Respiratory Protection**

For misty condition, wear NIOSH-approved mist respirator. Respirator should not contain any metals corrodible by these solutions.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Attention:** The data below are typical values and do not constitute a specification.

**Appearance:** Clear to slightly turbid liquid

**Odor:** No odor

**pH:** Neutral-Slightly Alkaline

**Vapor Pressure:** NA

**Vapor Density (Air = 1):** NA

**Boiling Point:** 20% - 105°C  
34% - 114°C

**Melting Point:** 45% - 125°C

**Specific Gravity:** 20% - 1.19 @ 27°C  
34% - 1.34  
45% - 1.47

**Solubility:** Readily dispersible in water.

**Viscosity:** NA

## SECTION 10. STABILITY AND REACTIVITY

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**Chemical Stability:** Stable.

**Incompatibility With Other Materials:** Reacts violently with boron trifluoride (BF<sub>3</sub>) or a mixture of boron trioxide and calcium oxide. Water-reactive materials such as sodium cause an exothermic reaction. Methyl vinyl ether starts runaway polymerization reaction. Zinc as in galvanized iron yields hydrogen gas, which may explode under these conditions.

**Hazardous Decomposition Products:** Fumes of chlorides (Cl-) are given off at temperatures above 1,600°C.

**Hazardous Polymerization:** Hazard polymerization will not occur.

**Conditions to Avoid:** None.

## SECTION 11. TOXICOLOGICAL INFORMATION

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## SECTION 12. ECOLOGICAL INFORMATION

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### ECOTOXICITY

Aquatic Toxicity: TLm96: over 1000 ppm (anhydrous)

### ENVIRONMENTAL FATE

Material does not cause significant environmental impact.

## SECTION 13. DISPOSAL CONSIDERATIONS

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Observe all federal, state, and local regulations when disposing of this substance. Not listed as a hazardous waste.

## SECTION 14. TRANSPORT INFORMATION

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The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside the United States.

**DOT Shipping Name:** Not regulated.

**DOT Hazard Class:** NA

**DOT Identification Number:** NA

**Placard:** None required

**DOT Packing Group:** NA

**Emergency Response Guide No.:** NA

## **SECTION 15. REGULATORY INFORMATION**

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### **CHEMICAL INVENTORIES:**

All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory or are exempt.

## **SECTION 16. ADDITIONAL INFORMATION**

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### **Scale For NFPA and HMIS Ratings:**

0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:-Personal Protective Equipment Index Recommendation, \*-Chronic Effect Indicator. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protections Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

### **ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value  
STEL - Short-term Exposure Limit  
NA - Not Applicable  
NDA - No Data Available

TWA - Time Weighted Average  
REL/PEL - Recommended/Permissible Exposure Limit  
CAS - Chemical Abstract Service Number  
NE - Not Established

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