

## Material Safety Data Sheet

Revision Issued: 8/09/2010    Supersedes: 5/21/2009    First Issued: 12/01/85

### Section I - Chemical Product And Company Identification

**Product Name: Calcium Chloride, Liquid**

CAS Number: 10043-52-4

HBCC MSDS No. CC06000



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### Section II - Composition/Information On Ingredients

		Exposure Limits (TWAs) in Air		
Chemical Name	CAS Number	ACGIH TLV	OSHA PEL	STEL
Calcium Chloride	10043-52-4	N/A	N/A	N/A

### Section III - Hazard Identification

**Routes of Exposure:** Calcium chloride can affect the body if it is ingested or if it comes in contact with the eyes or skin.

**Summary of Acute Health Hazards**

**Ingestion:** May irritate gastrointestinal tract and cause nausea and vomiting.

**Inhalation:** Causes irritation of nose and throat. Additional effects may include shortness of breath.

**Skin:** Causes mild irritation. May cause more severe response if skin is abraded (scratched or cut). Additional effects may include blisters or sores.

**Eyes:** Causes irritation and possible transient corneal injury. Tearing may occur.

**Summary of Chronic Health Hazards:** May cause perforation of the nasal septum and nosebleeds. Contact with heated product can cause thermal burns with resultant corneal injury.

**Effects of Overexposure:** Possible superficial burns and transient corneal injury.

**Medical Conditions Generally Aggravated by Exposure:** N/A

### Section IV - First Aid Measures

**Ingestion:** If swallowed will cause nausea and vomiting. If victim is conscious, have victim drink water. If victim is unconscious or having convulsions, do nothing except keep victim warm GET MEDICAL ATTENTION.

**Inhalation:** Move to fresh air; if breathing is difficult or discomfort persists, GET MEDICAL ATTENTION.

**Skin:** If necessary, remove contaminated clothing and shoes. Flush affected areas with plenty of water for at least 15 minutes.

**Eyes:** Promptly flood with water and continue washing for at least 15 minutes. Consult an ophthalmologist.

**Notes to Physician:** 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 V - Fire Fighting Measures

**Flash Point:** Not flammable      **Autoignition Temperature:** Not flammable

**Lower Explosive Limit:** N/A      **Upper Explosive Limit:** N/A

**Unusual Fire and Explosion Hazards:** N/A

**Extinguishing Media:** This product is non-flammable.

**Special Firefighting Procedures:** Avoid breathing corrosive vapors; keep upwind. Dike area to prevent runoff and contamination of water sources. For firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and 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 fire fighting 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. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

### Section VI - Accidental Release Measures

Dike the spilled liquid, and either pump back into original container or cover with sand or clay-type substance for absorption. Spilled material may cause a slipping hazard. Isolate area. Keep authorized personnel from entering the area. Use appropriate safety equipment.

### Section VII - Handling and Storage

Store at ambient temperature. Protect from atmospheric moisture. Prevent possible eye and skin contact by wearing protective clothing and equipment. Eye wash and safety shower should be provided within the immediate work area for emergency use. Launder contaminated clothing before re-use.

### Section VIII - Exposure Controls/Personal Protection

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection as indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator.

**Ventilation:** Use local exhaust in enclosed areas. Natural ventilation for outdoor areas.

**Protective Clothing:** Employees should be provided with and use impervious clothing, rubber gloves, and rubber boots. Leather work boots and/or leather products will dehydrate with resultant shrinkage and possible destruction.

**Eye Protection:** Employees should be provided with and required to use splash-proof safety goggles and splash shields where there is any possibility of calcium chloride contacting the eyes.

**Other Protective Clothing or Equipment:** N/A

**Work/Hygienic Practices:** Avoid contact with the eyes, skin, and mucous membranes. Wash hands thoroughly with soap and water before eating, drinking, smoking or using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

## Section IX - Physical and Chemical Properties

<b>Physical State:</b> Liquid	<b>pH:</b> 3.8-9
<b>Melting Point/Range:</b> N/A	<b>Boiling Point/Range:</b> 118°C (244°F) for 38% Solution; 115°C for 34.7% Solution.
<b>Appearance/Color/Odor:</b> Clear to straw colored liquid, odorless	
<b>Solubility in Water:</b> 100%	<b>Vapor Pressure(mmHg):</b> 12 @ 25°C
<b>Specific Gravity (Water=1):</b> 1.3 @ 60°F (for 30% Solution); 1.35 @ 60°F (for 34.7% Solution); 1.39 @ 60°F (for 37.5% Solution)	<b>Molecular Weight:</b> 110.99 (for pure CaCl <sub>2</sub> )
<b>Vapor Density(Air=1):</b> N/A	<b>% Volatiles:</b> 70% for 33 Be; 65.3% for 37.4 Be; 62.5% for 40 Be
<b>How to detect this compound :</b> N/A	

## Section X - Stability and Reactivity

<b>Stability:</b> Stable	<b>Hazardous Polymerization:</b> Will not occur
<b>Conditions to Avoid:</b> N/A	
<b>Materials to Avoid:</b> Boric acid and calcium oxide are incompatible.	
<b>Hazardous Decomposition Products:</b> If liquid completely dries from fire, thermal decomposition products may include toxic and corrosive fumes of chlorine and hydrogen chloride. Product may react with some metals (aluminum, zinc, tin, etc.) to release flammable hydrogen gas.	

## Section XI - Toxicological Information

Toxicity Data (anhydrous calcium chloride):  
TDLO: 112 g/kg, oral, 20 weeks, rat  
LDLO: 274 mg/kg, oral, rat  
LD50: 1000 mg/kg, oral, rat  
LD50: 264 mg/kg, intraperitoneal, rat  
Moderately toxic by ingestion, slightly toxic by dermal absorption.

## Section XII - Ecological Information

N/A

## Section XIII - Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

## Section XIV - Transport Information

**DOT Proper Shipping Name:** N/A  
**DOT Hazard Class/ I.D. No.:** N/A

## Section XV - Regulatory Information

**Reportable Quantity:** N/A  
**NFPA Rating:** Health - 1; Flammability - 0; Instability - 0  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme  
SARA Title III: Section 311: Acute Hazard  
**Carcinogenicity Lists:** No **NTP:** No **IARC Monograph:** No **OSHA Regulated:** No

## Section XVI - Other Information

**Synonyms/Common Names:** Calcium Chloride-Liquid

**Chemical Family/Type:** Inorganic Salt

**Sections changed since last revision:** X

**IMPORTANT!** Read this MSDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This MSDS has been prepared according to the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The MSDS information is based on sources believed to be reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Also, additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks prior to use, and then to exercise appropriate precautions for protection of employees and others.