

Material Safety Data Sheet

Revision Issued: 2/23/2009 Supersedes: 10/16/2001 First Issued: 12/01/85

Section I - Chemical Product And Company Identification

Product Name: Calcium Chloride, Powder

Synonyms/Common Names: Calcium Chloride, Anhydrous

CAS Number: 10043-52-4

HBCC MSDS No. CC05400



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Section II - Composition/Information On Ingredients

Chemical Name	CAS Number	%	Exposure Limits (TWAs) in Air		
			ACGIH TLV	OSHA PEL	STEL
Calcium Chloride	10043-52-4	90.5-97	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: Causes irritation of mouth and stomach. May cause nausea and vomiting.

Inhalation: Causes irritation of the nose and throat. Inhalation of the dust may cause irritation to the respiratory tract, with symptoms of coughing and shortness of breath.

Skin: Contact of the solid with dry skin causes mild irritation. Severe irritation may be caused by moist skin.

Eyes: Contact with the eyes (particularly by dust) causes irritation and possible transient corneal injury.

Summary of Chronic Health Hazards: N/A

Signs and Symptoms of Exposure: N/A

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

Medical Conditions Generally Aggravated by Exposure: N/A

Note to Physicians: N/A

Section IV - First Aid Measures

Ingestion: If victim is conscious, have victim drink water. If victim is unconscious or having convulsions, keep victim warm. GET MEDICAL ATTENTION.

Inhalation: Move to fresh air; if 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. Wash clothing and thoroughly clean shoes before reuse. Seek medical attention.

Eyes: Remove any contact lenses and promptly flood with water and continue washing for at least 15 minutes. GET MEDICAL ATTENTION.

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: Use extinguishing media most appropriate for the surrounding fire.

Special Firefighting Procedures: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. At high temperatures or when moistened under fire conditions, calcium chloride may produce toxic or irritating fumes.

Section VI - Accidental Release Measures

Shovel dry material into a container and remove container to a safe area. Avoid generating dusty conditions. Provide ventilation.

Section VII - Handling and Storage

Store in a cool, dry, well-ventilated area away from incompatible substances. Prevent possible eye and skin contact by wearing protective clothing and equipment. Moist calcium chloride and concentrated solutions can corrode steel. When exposed to the atmosphere, calcium chloride will absorb water and form a solution.

Section VIII - Exposure Controls/Personal Protection

Respiratory Protection: Avoid breathing dust. Dust mask or dust respirator may be helpful in preventing inhalation exposures. If necessary, use only MSHA- or NIOSH-approved respirators.

Ventilation: N/A

Protective Clothing: Employees should use protective clothing and gloves when handling calcium chloride.

Eye Protection: Employees should wear safety goggles or face shield when handling calcium chloride.

Other Protective Clothing or Equipment: N/A

Work/Hygienic Practices: Avoid contact with the eyes, skin, and mucous membranes. Wash hands before eating, drinking, or using the restroom. Shower and eyewash facilities should be accessible. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible. Dust deposits on floors and other surfaces may pick up moisture and cause the surfaces to become slippery and present safety hazards.

Section IX - Physical and Chemical Properties

Physical State: Solid

pH: 9-10

Melting Point/Range: 260°C (500°F)

Boiling Point/Range: > 1600°C (> 2912°F)

Appearance/Color/Odor: White to off-white powder, odorless

Solubility in Water: 100%

Vapor Pressure(mmHg): N/A

Specific Gravity(Water=1): 2.15 @ 20°C (solid)

Molecular Weight: 110.99 (solute)

Vapor Density(Air=1): N/A

% Volatiles: N/A

How to detect this compound : N/A

Section X - Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to Avoid: Dust generation, excess heat, exposure to moist air or water.

Materials to Avoid: Bromine Trifluoride and mixtures of bone acid and lime. Metals will slowly corrode in aqueous solutions. 2-Furanpercarboxylic Acid.

Hazardous Decomposition Products: Emits toxic chlorine fumes when heated to decomposition. May form hydrogen chloride in presence of sulfuric or phosphoric acids or with water at elevated temperatures. Calcium Oxide.

Section XI - Toxicological Information

N/A

Section XII - Ecological Information

The LC50/96-hour values for fish are over 100 mg/l.

Section XIII - Disposal Considerations

Add to large volume of water. Stir in light excess soda ash. (Add slaked lime in presence of fluoride.) Decant and neutralize in second container with 6M-HCL. Dispose of in accordance with any 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

Carcinogenicity Lists: No **NTP:** No **IARC Monograph:** No **OSHA Regulated:** No

Section XVI - Other Information

Synonyms/Common Names: Calcium Chloride, Anhydrous

Chemical Family/Type: Inorganic Salt

Sections changed since last revision: IV, V, VI, VII, IX, X, XV

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.

