



Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Chemical Product Name Calcium Chloride
Chemical Family Alkaline Earth Metal/Halide
Chemical Name Calcium Chloride
Formula CaCl₂ or CaCl₂·2H₂O
Molecular Weight 110.99 or 147.02
Commercial Name Calcium Chloride Pellets (Anhydrous), Dowflake* 77-80% Calcium Chloride
Diamond Crystal® FlashMelt™

Manufacturer
Cargill Incorporated
P. O. Box 364
Newark, CA 94560-0364

Emergency Telephone Numbers
CHEMTREC (800) 424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Description
Small, deliquescent white spheres or flakes.

Ingredient Name	CAS Number	Exposure Limits	Concentration (%)
<i>Calcium Chloride Pellets and Diamond Crystal® FlashMelt™</i>			90-94
Calcium Chloride Anhydrous	10043-52-4		
<i>Dowflake</i>			77-80
Calcium Chloride Dihydrate	10035-04-8		

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

* WHITE TO OFF-WHITE SOLID PELLETS OR FLAKES. ODORLESS. CAUSES EYE IRRITATION. *
*

Potential Health Effects

Route(s) Of Entry: Inhalation, Skin, Ingestion

Human Effects and Symptoms of Overexposure: Results of in vitro mutagenicity tests have been negative for calcium chloride. The oral LD50 for calcium chloride in rats is 967 mg/kg.

Acute Inhalation: Vapors are unlikely due to physical properties. Airborne limit is 10 mg/m³.

Chronic Inhalation: Not Listed

Acute Skin Contact: May cause severe irritation and burning.

Chronic Skin Contact: Not Listed

Acute Eye Contact: May cause irritation and burning

Chronic Eye Contact: Not Listed

Acute Ingestion: May cause nausea and vomiting, gastrointestinal irritation or ulceration.

Chronic Ingestion: Not Listed

Carcinogenicity

NTP: Not listed as a carcinogen or mutagen.

IARC: Not listed as a carcinogen or mutagen.

OSHA: Not listed as a carcinogen or mutagen.

Medical Conditions Aggravated by Exposure:

4. FIRST AID MEASURES

First Aid For Eyes: For eye contact flush with water immediately lifting eyelids occasionally. Consult a physician.

First Aid For Skin: Remove clothing from affected area. Wash skin carefully. Rinse carefully.

First Aid For Inhalation: Vapors are unlikely due to physical properties. Dust may cause irritation of upper respiratory tract. Remove to fresh air at once.

First Aid For Ingestion: If swallowed, induce vomiting immediately. Call a physician. Ingestion may cause gastrointestinal irritation or ulceration.

5. FIRE AND MEASURES

Flash Point: N/A

Extinguishing Media: Non-combustable

Special Fire Fighting Procedures: Fire Fighters should wear positive pressure, self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Sweep up granules and discard in proper manner. Calcium chloride can corrode steel containers. Flush area with plenty of water. Walking surfaces may remain wet longer due to moisture being held by spilled material.

7. HANDLING AND STORAGE

Storage Temperature (min./max.): Not Applicable

Special Sensitivity: Will absorb water when exposed to atmosphere. Contact with sulfuric acid will yield hydrogen chloride.

Handling and Storage Precautions: Metals will slowly corrode in aqueous solution. Aluminum and yellow brass will be attacked by calcium chloride. Incompatible with boric oxide, calcium oxide, bromine trifluoride, and zinc. Considerable heat is generated when mixed with water. Leather clothing and shoes will be damaged by calcium chloride.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection Requirements: Safety glasses with sideshields.

Skin Protection Requirements: Rubber gloves and uniforms are recommended.

Respiratory/Ventilation Requirements: Not required where adequate ventilation exists. In the absence of adequate ventilation, care should be exercised to limit exposure of personnel to the vapors.

Exposure Limits: Not Listed

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Small white, hygroscopic, deliquescent granules that release heat upon contact with water and have a strong bitter and pungent taste.

Color: White

Odor: Strong bitter and pungent taste.

Boiling Point (760mm Hg) (°C): 1935

Melt Point/Freeze Point (°C): 782

PH:

Solubility In Water (g/cc, %): 0.745

Specific Gravity (H₂O=1): NA

Bulk Density:

% Volatile By Weight:

Vapor Pressure (mm Hg/60°C): NA

Vapor Density (Air=1): NA

10. REACTIVITY

Stability: Stable

Incompatibilities: Will absorb water when exposed to atmosphere. Contact with sulfuric acid will yield hydrogen chloride. Metals will slowly corrode in aqueous solution. Aluminum and yellow brass will be attacked by calcium chloride. Incompatible with boric oxide, calcium oxide, bromine trifluoride, and zinc.

Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromate.

Decomposition Products: See Above

11. TOXICOLOGICAL INFORMATION

Description: Not Listed

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not Listed

Environmental Degradation: Not Listed

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with all applicable federal, state, and local environmental regulations. Wash away with large excess of water. Keep out of water sources.

14. TRANSPORTATION INFORMATION

D.O.T. Shipping Name: Not Listed

Technical Shipping Name: Not Listed

D.O.T Hazard Class: Not Listed

U.N./N.A. Number: Not Listed

Product Rq (lbs.): Not Listed

D.O.T. Label: Not Listed

D.O.T. Placard: Not Listed

Freight Class Bulk: Not Listed

Freight Class Package: Not Listed

Product Label: N/A

15. REGULATORY INFORMATION

OSHA Status: Not Listed

TSCA Status: Not Listed

Cercla reportable Quantity

SARA Title III

Section 302 Extremely

Hazardous Substances: Not Listed

Section 311/312

Hazard categories: Not Listed

Section 313

Toxic Chemicals: Not Listed

RCRA Status: Not Listed

California Proposition 65: WARNING: This product (when used in aqueous formulations with a chemical oxidizer such as ozone) contains a chemical known to the State of California to cause cancer.

16. OTHER INFORMATION

Reason For Issue: Regulatory Communication

Prepared By: Steve Karl

Approved By: Dave Merriweather

Title: Director-Quality Administration

Approval Date: May 2007

Supersedes Date: November 2006

MSDS Number: NC2

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