

# MATERIAL SAFETY DATA SHEET

885

## SECTION I NAME

Product	CALCIUM CHLORIDE
Chemical Synonyms	Calcium Chloride, granular, powder, flake, lumps.
Formula	CaCl <sub>2</sub> · 2H <sub>2</sub> O
Unit(s) Size	100 grams to 2.5 kg.
C.A.S. No.	10035-04-8

CHEMTREC  
800-424-9300  
Day 716-226-6177  
Night 716-334-4222

Health	1
Fire	0
Reactivity	0

## SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Not a mixture (NA), Calcium Chloride	74-97%	None established.
The chief impurity being calcium hydroxide.		
CAUTION! HARMFUL IF SWALLOWED-CAUSES IRRITATION TO SKIN, EYES, AND MUCOUS MEMBRANES.		

## SECTION III PHYSICAL DATA

Melting Point (°F)	772°C
Boiling Point (°F)	>2912°F (>1600°C)
Vapor Pressure (mm Hg)	Negligible as solid
Vapor Density (Air = 1)	3.84
Solubility in Water	Appreciable
Appearance and Odor	White-granular, powder, flake, lump; no odor.

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-combustible (NA).
Extinguisher Media	Use any media suitable for extinguishing supporting fire.

## SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH-approved self-contained breathing apparatus and protective clothing.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products of calcium oxide and hydrochloric acid and/or chlorine gas.

D.O.T. NON-REGULATED.



**FREY SCIENTIFIC**  
905 HICKORY LANE MANSFIELD OHIO 44905

MSDS No. Effective Date

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

Threshold Limited Value  
None established.

Effects of Overexposure  
Generally considered non-toxic. May cause some irritation to the skin, eyes, and mucous membranes.

## Emergency and First Aid Procedures

**INHALATION:** Remove to fresh air. Get medical attention.  
**SKIN AND EYES:** Immediately flush with plenty of water for 15 minutes. For eye contact, get prompt medical attention.  
**INGESTION:** If swallowed, if conscious, give one or two glasses of water, induce vomiting and call a physician.

## SECTION VI REACTIVITY DATA

Stability	Unstable Stable	Conditions to Avoid	X
Incompatibility (Materials to avoid)	Strong oxidizers, BrF <sub>3</sub> , (BaO+CaO). Excessive temperature and heat.		

## Hazardous Decomposition Products

Thermal decomposition or burning may produce Calcium Oxide and Hydrochloric acid.

## Hazardous Polymerization

May Occur	Will Not Occur	Conditions to Avoid
	X	

## SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled  
Sweep up and place in a suitable container.

## Waste Disposal Method

Dissolve in water and flush to sewer with copious amounts of water.

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection  
None should be needed in normal laboratory handling - if dusty conditions prevail, work in a ventilation hood or wear a NIOSH-approved dust mask.

Ventilation	Local Exhaust	Recommended	Special	No
	Mechanical (General)	Recommended	Other	No

## Protective Gloves

Rubber

## Eye Protection

Chemical Safety glasses.

Other Protective Equipment  
Safety glasses, smock, apron, eye wash station, and proper gloves.

## SECTION IX SPECIAL PRECAUTIONS

### Precautions to be Taken in Handling and Storing

Store in a cool, dry place. Wash thoroughly after handling.

## Other Precautions

Read label on container before using.

This material is very hygroscopic. Always use cool water (temperature less than 80°F, 27°C) when dissolving Calcium Chloride.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. No. 1 Date 11/2/87 Approved [Signature] Chemical Safety Coordinator

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