

**WARD'S**

Natural Science Establishment, Inc.  
P O Box 92912  
Rochester, NY 14692-9012  
716-359-2502


**MATERIAL SAFETY DATA SHEET**

397 Vansickle Road  
St. Catharines, Ontario L2S 3T5  
815 Fiero Lane  
San Luis Obispo, CA 93403-5010

MSDS No. CC 75  
Effective Date February 1, 1999

**SECTION I NAME****24 HOUR EMERGENCY ASSISTANCE**

<b>Product</b>	CALCIUM CHLORIDE, ANHYDROUS
<b>Chemical Synonyms</b>	Calcium Chloride, Anhydrous
<b>Formula</b>	CaCl <sub>2</sub>
<b>Unit Size</b>	up to 2.5 Kg.
<b>C.A.S. No.</b>	10043-52-4

	<b>CHEMTREC</b> <b>800-424-9300</b> Day 716-226-6177		<table border="1"><tr><td>Health</td><td>1</td></tr><tr><td>Fire</td><td>0</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>		Health	1	Fire	0	Reactivity	0
	Health	1								
	Fire	0								
	Reactivity	0								
<b>NFPA HAZARD RATING</b>		<b>HMIS *</b>								
LEAST    SLIGHT    MODERATE		HIGH    EXTREME								
0        1        2		3        4								

**SECTION II INGREDIENTS OF MIXTURES**

Principal Component(s)	%	TLV Units
Calcium Chloride, Anhydrous: (CAS No. 10043-52-4)	90-92%	None established.
Sodium Chloride: (CAS No. 7647-14-5)	1-2%	None established.
Potassium Chloride: (CAS No. 7447-40-7)	2-3%	None established.
Strontium Chloride: (CAS No. 10476-85-4)	1%	None established.
Water: (CAS No. 7732-18-5)	Bal.	None established.

**CAUTION! HARMFUL IF SWALLOWED. CAUSES IRRITATION TO SKIN, EYES, AND MUCOUS MEMBRANES.**

**SECTION III PHYSICAL DATA**

<b>Melting Point (°F)</b>	772°C (1422°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	2.152 at 15°/4
<b>Boiling Point (°F)</b>	>1600°C (>2912°F)	<b>Percent Volatile by Volume (%)</b>	Negligible as solid.
<b>Vapor Pressure (mm Hg)</b>	Negligible as solid.	<b>Evaporation Rate ( =1)</b>	Not applicable.
<b>Vapor Density (Air=1)</b>	Not applicable.		
<b>Solubility in Water</b>	Appreciable. 59.5% by weight @ 0°C.		
<b>Appearance &amp; Odor</b>	White granular, pellets, lumps; no odor. Hygroscopic.		

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

<b>Flash Point (Method Used)</b>	Non-combustible (NA).	<b>Flammable Limits in Air % by Volume</b>	NA	<b>Lower</b>	<b>Upper</b>
				-----	-----
<b>Extinguisher Media</b>	Use any media suitable for extinguishing supporting fire.				

**SPECIAL FIREFIGHTING PROCEDURES**

In fire conditions, wear a NIOSH/MSHA-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.**

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

**SECTION V****HEALTH HAZARD DATA**

CC 75

**Threshold Limited Value**

None established.

**Effects of Overexposure**

Generally considered non-toxic. May cause some irritation to the skin, eyes, and mucous membranes. Dust may cause irritation to upper respiratory tract.

**Emergency and First Aid Procedures**

**INHALATION:** Remove to fresh air. If illness or discomfort develops, get medical attention. **SKIN:** Flush with water, then wash with soap and water. **EYES:** Immediately flush with plenty of water for 15 minutes, lifting lower and upper eyelids occasionally. Get prompt medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water, induce vomiting and call a physician. Never give anything by mouth to an unconscious person.

**SECTION VI****REACTIVITY DATA**

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Excessive temperature and heat. High humidity and water.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)**

Strong oxidizers, BrF<sub>3</sub>, (B<sub>2</sub>O<sub>3</sub>+CaO).

**Hazardous Decomposition Products**

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

**Hazardous Polymerization****Conditions to Avoid**

<b>May Occur</b>	<b>Will Not Occur</b>
	X

Not applicable.

**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**

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

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

**SECTION VIII****SPECIAL PROTECTION INFORMATION**

**Respiration Protection (Specify Type)** None should be needed in normal laboratory handling. If dusty conditions prevail, work in a ventilation hood or wear a NIOSH/MSHA-approved dust mask.

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Recommended.</b>	<b>Special</b>	<b>No.</b>
	<b>Mechanical (General)</b>	<b>Recommended.</b>	<b>Other</b>	<b>No.</b>

**Protective Gloves**

Rubber.

**Eye Protection**

Chemical safety glasses.

**Other Protective Equipment**

Safety glasses, smock, apron, eye wash station, proper gloves, ventilation hood.

**SECTION IX****SPECIAL PRECAUTIONS****Precautions to be Taken in Handling & Storing**

Store in a cool, dry place. Wash thoroughly after handling. Avoid eye and prolonged skin contact.

Keep container tightly closed when not in use.

**Other Precautions**

Read label on container before using. Do not wear contact lenses when working with chemicals.

This material is very hygroscopic. Always use cool water (temperature less than 80°F (27°C)) when dissolving Calcium Chloride. Remove and wash contaminated clothing. Leather clothing and shoes will be damaged by calcium chloride.

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

<b>Revision No. 6</b>	<b>Date</b> 2/1/99	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
-----------------------	--------------------	---------------------------------	---------------------------------------

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.