

MATERIAL SAFETY DATA SHEET

CALCIUM CHLORIDE
CAROLINA BIOLOGICAL

Revised: 05/15/08
Replaces: 03/04/08
Printed: 05/20/08

1. PRODUCT DESCRIPTION

Product Name: Calcium Chloride Lab Grade
 Product Code(s): 85-1800, 20-7920, 20-7922, 82-1050, 84-0900, 85-0140, 85-0144
 Size: Various
 Chemical Name: Calcium Chloride, Anhydrous
 CAS Number: 10043-52-4
 Formula: CaCl₂
 Synonyms: Dowflake; Snomelt; Superflake; Calpus; Caltac
 Distributor: Carolina Biological Supply Company
 2700 York Road
 Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
 Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principal Hazardous Components: Calcium Chloride(CAS# 10043-52-4) 90-97%
 TLV and PEL units: None established

3. HAZARD IDENTIFICATION

Emergency Overview:
 Potential Health Effects:
 Eyes: May cause irritation.
 Skin: May cause irritation.
 Ingestion: May cause gastrointestinal discomfort.
 Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
 Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
 Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
 Ingestion - If swallowed, if conscious, give some water. Do not induce vomiting unless and until directed by medical personnel. Get medical attention immediately. Never give anything by mouth to an unconscious person.
 Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm and quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point(Method Used): Non-combustible
 NFPA Rating: Health: 1
 Fire: 0
 Reactivity: 0

Extinguisher Media:

Use media suitable to extinguish surrounding fire.
 Flammable Limits in Air % by Volume: No data available.
 Autoignition Temperature: No data available.
 Special Firefighting Procedures:
 Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
 Unusual Fire and Explosion Hazards: Fire or excessive heat may produce

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hazardous decomposition products of Calcium Oxide and Hydrochloric Acid and/or Chlorine gas.

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Keep well closed. Store in a cool, dry area. Do not get in eyes. Avoid prolonged or repeated skin contact. Do not breathe dust. Wash thoroughly after handling. Do not take internally.

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

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type):

None needed under normal conditions of use with adequate ventilation. NIOSH approved equipment should be worn if PELs are exceeded.

Ventilation:

Local Exhaust: Preferred
Mechanical (General): Acceptable
Special: No
Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab apron, eye wash, and safety shower.

9. PHYSICAL DATA

Molecular Weight: 110.99
Melting Point: 772C
Boiling Point: Greater than 1600°C
Vapor Pressure: Negligible as solid
Vapor Density (Air=1): Not applicable
Specific Gravity (H2O=1): 1.34
Percent Volatile by Volume: Negligible as solid
Evaporation Rate (H2O=1): Not applicable
Solubility in Water: Soluble (74.5g/100cc @ 20°C)
Appearance and Odor: White, odorless, granules.

10. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Excessive temperature and heat. High humidity and water. Moisture (material is deliquescent).

Incompatibility (Materials to Avoid): Water, strong oxidizers, metals.

Reacts violently with (B2O3+CaO), BrF3. Reaction with zinc releases explosive hydrogen gas. Exothermic reaction with water. Catalyzes exothermic polymerization of methyl vinyl ether.

Hazardous Decomposition Products: Chlorine compounds. Thermal decomposition or burning may produce Calcium Oxide and Hydrochloric

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Acid.
Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data: orl-rat LD50: 1000 mg/kg; ivn-mus LD50: 42 mg/kg.

Effects of Overexposure:

Acute: See section 3

Chronic: Mutation data cited. Tumorigenic data cited. Not listed as causing cancer by IARC, NTP, or OSHA.

Conditions Aggravated by Overexposure: Preexisting conditions of the skin, eyes, and upper respiratory tract.

Target Organs: No data available.

Primary Route(s) of Entry: No data available.

12. ECOLOGICAL DATA

EPA Waste Numbers: None

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name: Non-regulated material.

15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals		CERCLA Sec. 103 RQ lbs.	RCRA Sec. 261.33
		Name	Chemical List Category		
Calcium Chloride, Granular	No	No	No	No	No

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists
CAS Number..Chemical Abstracts Service Number
CERCLA.....Comprehensive Environmental Response, Compensation, and
Liability Act
DOT.....U.S. Department of Transportation
IARC.....International Agency of Research on Cancer
mppcf.....million particles per cubic foot
N/A.....Not Available
NTP.....National Toxicology Program

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OSHA.....Occupational Safety and Health Administration
PEL.....Permissible Exposure Limit
ppm.....parts per million
RCRA.....Resource Conservation and Recovery Act
SARA.....Superfund Amendments and Reauthorization Act
TLV.....Threshold Limit Value
TSCA.....Toxic Substances Control Act