Safety Data Sheet

Calcium Chloride, Dihydrate

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Calcium Chloride, Dihydrate
Recommended Use:	Science education applications
Synonyms:	Calcosan
Distributor:	Carolina Biological Supply Company 2700 York Road, Burlington, NC 27215 1-800-227-1150
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.

GHS Classification:
Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Acute Toxicity - Oral Category 4

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Calcium Chloride, Dihydrate	10035-04-8	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion:	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Media:	Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products:	Hydrogen chloride

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid dusting.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Readily absorbs moisture from air.

Storage: Keep container tightly closed in a cool, well-ventilated place.
Material is hygroscopic (absorbs moisture) and deliquescent (absorbs moisture to become solution).

Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	**(TWA)**	**(STEL)**	**(TWA)**	**(STEL)**
Calcium Chloride, Dihydrate	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 11. A respirator is not normally required.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Butyl rubber, Neoprene, Nitrile

Section 9 Physical Data

Formula: CaCl2*2H2O
Molecular Weight: 147.02 g/mol
Appearance: White Solid
Odor: None
Odor Threshold: No data available
pH: 5.0 - 8 @ 147 g/L, 20°C
Melting Point: 176 C
Boiling Point: No data available
Flash Point: No data available
Flammable Limits in Air: No data available

Vapor Pressure: No data available
Evaporation Rate (BuAc=1): No data available
Vapor Density (Air=1): No data available
Specific Gravity: 1.85
Solubility in Water: Practically Insoluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: 0%

Section 10 Reactivity Data

Reactivity: Mildly reactive - See below
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Exposure to moisture Reaction with water is exothermic. Moisture (material is deliquescent).
Incompatible Materials: Strong acids, Zinc, Methyl Vinyl Ether, Boric Oxide
Hazardous Decomposition Products: Hydrogen chloride
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): Bradycardia, Hypercalcemia (nausea, vomiting, pain, muscle twitches)
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Calcium Chloride, Dihydrate	10035-04-8	Oral LD50 Rabbit 1384 mg/kg	Not determined	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Calcium Chloride, Dihydrate	10035-04-8	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: Cardiovascular system, Kidneys, Musculoskeletal system
Chronic: Kidneys, Respiratory system, Cardiovascular system, Musculoskeletal system

Section 12 Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: This material is expected to have very high mobility in soil. It does not absorb to most soil types.
Persistence: Dissolved into water
Bioaccumulation: Bioconcentration is not expected to occur.
Degradability: Does not biodegrade readily.
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Calcium Chloride, Dihydrate	10035-04-8	

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
Not regulated for transport by US DOT.

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Calcium Chloride, Dihydrate	10035-04-8	No	No	No	No	No

Section 16 Additional Information

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Safety Data Sheet

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.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
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
IDLH	Immediately dangerous to life and health