

Safety Data Sheet

Cadmium Chloride Solution

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Cadmium Chloride Solution
Recommended Use: Science education applications
Synonyms: Cadmium Dichloride Solution
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;

DANGER



Toxic if swallowed. May cause genetic defects. May cause cancer.

GHS Classification:

Non-hazardous under Acute Toxicity Inhalation Gas category, Germ Cell Mutagenicity Category 1B, Carcinogenicity Category 1B, Reproductive Toxicity Category 1B

Other Safety Precautions: IF exposed or concerned: Get medical advice/attention.

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	99.77
Cadmium Chloride	7790-78-5	0.23

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: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Section 5 Firefighting Procedures

Extinguishing Media: Use media suitable to extinguish surrounding fire.
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, Metal Oxides,

Section 6 Spill or Leak Procedures

Safety Data Sheet

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. Ventilate the contaminated area. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Evacuate the area promptly. Avoid contact with material. Avoid creating and inhaling spray or mist. Avoid contact with skin and eyes. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Ensure clean-up measures are in compliance with OSHA (29 CFR 1910.120). Contain the discharged material. Avoid runoff into storm sewers and ditches that lead to waterways.

Section 7 Handling and Storage

Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not ingest or take internally. Avoid contact with skin and eyes.

Storage: Store locked up. Keep container tightly closed in a cool, well-ventilated place. Store in a secure area suitable for toxic material. Keep locked up and out of the reach of children.

Storage Code: Blue - Toxic. Store separately in a secured area.

Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Cadmium Chloride (CAS# 7790-78-5) 100%	0.01 mg/m ³ TWA (as Cd); 0.002 mg/m ³ TWA (respirable fraction, as Cd)	N/A	N/A	N/A

Control Parameters

Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

Respiratory Protection:

No respiratory protection required under normal conditions of use.

Respirator Type(s):

NIOSH approved air purifying respirator with dust/mist filter.

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:

Nitrile

Section 9 Physical Data

Formula: CdCl₂*5/2H₂O

Molecular Weight: N/A, this is a mixture

Appearance: Colorless

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting Point: 0 C

Boiling Point: 100 C

Flash Point: No data available

Flammable Limits in Air: N/A

Vapor Pressure: N/A

Evaporation Rate (BuAc=1): N/A

Vapor Density (Air=1): N/A

Specific Gravity: approx. 1

Solubility in Water: Soluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: 10

Percent Volatile by Volume: 0%

Section 10 Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Safety Data Sheet

Conditions to Avoid: None known.
Incompatible Materials: Water-reactive materials
Hazardous Decomposition Products: Metal Oxides, , Hydrogen chloride
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: Inhalation, Ingestion, and Skin contact.
Symptoms (Acute): Respiratory disorders, Liver disorders, Impaired Kidney Function
Delayed Effects: No data available

Acute Toxicity: Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Cadmium Chloride (CAS# 7790-78-5) 100%	7790-78-5	Oral LD50 Mouse 194 mg/kg		

Carcinogenicity: Chemical Name	CAS Number	IARC	NTP	OSHA
Cadmium Chloride (CAS# 7790-78-5) 100%	7790-78-5	Listed	Listed	Not listed

Chronic Effects:
Mutagenicity: 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: See Section 2
Chronic: Mutation data cited., Reproductive data cited., Listed by NTP, IARC as causing cancer., Teratogen data cited.

Section 12 Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Keep out of waterways.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available

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:	Air - IATA Proper Shipping Name:
UN number: 2570 Class: 6.1 Packing group: III Proper shipping name: Cadmium compounds (Cadmium chloride hemipentahydrate) Reportable Quantity (RQ): 10 lbs Marine pollutant: No Poison Inhalation Hazard: No	UN number: 2570 Class: 6.1 Packing group: III Proper shipping name: Cadmium compound (Cadmium chloride hemipentahydrate)

Section 15 Regulatory Information

Safety Data Sheet

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
No data available		No	No	No	No	No

California Prop 65: WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

Section 16 Additional Information

Revised: 09/18/2014

Replaces: 09/18/2014

Printed: 04-21-2015

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	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health