

# CADMIUM CHLORIDE

CDC

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b>	Solid crystals	White	Odorless
	Sinks and mixes with water.		
Protect water intakes. Notify local health and pollution control agencies.			
<b>Fire</b>	Not flammable.		
<b>Exposure</b>	CALL FOR MEDICAL AID.  SOLID Harmful if swallowed. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk, have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.		
<b>Water Pollution</b>	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

### 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
Collection Systems: Dredge  
Chemical and Physical Treatment:  
Absorb

### 2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.  
2.2 **Formula:** CdCl<sub>2</sub>  
2.3 **IMO/UN Designation:** Not listed  
2.4 **DOT ID No.:** 2570  
2.5 **CAS Registry No.:** 10108-64-2  
2.6 **NAERG Guide No.:** 154  
2.7 **Standard Industrial Trade Classification:** 52329

### 3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Safety glasses, rubber gloves, and respirator with proper filter.  
3.2 **Symptoms Following Exposure:** Ingestion causes gastroenteric distress, pain, and prostration. Sensory disturbances, liver injury, and convulsions have been observed in severe intoxications.  
3.3 **Treatment of Exposure:** INGESTION: induce vomiting and follow with gastric lavage, a saline cathartic, and demulcents. Consider using atropine, opiates, and fluid therapy. CaNa<sub>2</sub>EDTA has been effective in acutely poisoned animals and in a few humans. BAL has been found sufficiently effective in animal experiments to justify its use in human intoxication. Since the BAL-cadmium complex has a nephrotoxic action, the physician will have to decide whether or not to use this drug.  
3.4 **TLV-TWA:** 0.01 mg Cd/m<sup>3</sup> inhalable; 0.002 mg Cd/m<sup>3</sup> respirable fraction.  
3.5 **TLV-STEL:** Not listed.  
3.6 **TLV-Ceiling:** Not listed.  
3.7 **Toxicity by Ingestion:** Grade 4; LD<sub>50</sub> below 50 mg/kg  
3.8 **Toxicity by Inhalation:** Currently not available.  
3.9 **Chronic Toxicity:** Currently not available  
3.10 **Vapor (Gas) Irritant Characteristics:** Not pertinent  
3.11 **Liquid or Solid Characteristics:** Causes smarting of the skin and first degree burns on short exposure; may cause second degree burns on long exposure.  
3.12 **Odor Threshold:** Odorless  
3.13 **IDLH Value:** 9 mg/m<sup>3</sup> as Cd  
3.14 **OSHA PEL-TWA:** 0.005 mg/m<sup>3</sup> as Cd.  
3.15 **OSHA PEL-STEL:** Not listed.  
3.16 **OSHA PEL-Ceiling:** Not listed.  
3.17 **EPA AEGL:** Not listed

### 4. FIRE HAZARDS

- 4.1 **Flash Point:**  
Not flammable  
4.2 **Flammable Limits in Air:** Not flammable  
4.3 **Fire Extinguishing Agents:** Not pertinent  
4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent  
4.5 **Special Hazards of Combustion Products:** Not pertinent  
4.6 **Behavior in Fire:** Not pertinent  
4.7 **Auto Ignition Temperature:** Not flammable  
4.8 **Electrical Hazards:** Not pertinent  
4.9 **Burning Rate:** Not flammable  
4.10 **Adiabatic Flame Temperature:** Currently not available  
4.11 **Stoichiometric Air to Fuel Ratio:** Not Pertinent  
4.12 **Flame Temperature:** Currently not available  
4.13 **Combustion Molar Ratio (Reactant to Product):** Not Pertinent  
4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

### 5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** No reaction  
5.2 **Reactivity with Common Materials:** No reaction  
5.3 **Stability During Transport:** Stable  
5.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent  
5.5 **Polymerization:** Not pertinent  
5.6 **Inhibitor of Polymerization:** Not pertinent

### 6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:**  
1.94 ppm/96 hr/bluegill/TL<sub>m</sub>/fresh water  
6.2 **Waterfowl Toxicity:** LC<sub>50</sub> >5000 ppm.  
6.3 **Biological Oxygen Demand (BOD):** Not pertinent  
6.4 **Food Chain Concentration Potential:** Not pertinent  
6.5 **GESAMP Hazard Profile:**  
Bioaccumulation: +  
Damage to living resources: 3  
Human Oral hazard: 2  
Human Contact hazard: II  
Reduction of amenities: XXX

### 7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Currently not available  
7.2 **Storage Temperature:** Currently not available  
7.3 **Inert Atmosphere:** Currently not available  
7.4 **Venting:** Currently not available  
7.5 **IMO Pollution Category:** Currently not available  
7.6 **Ship Type:** Currently not available  
7.7 **Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Poison  
8.2 **49 CFR Class:** 6.1  
8.3 **49 CFR Package Group:** II  
8.4 **Marine Pollutant:** Yes  
8.5 **NFPA Hazard Classification:** Not listed  
8.6 **EPA Reportable Quantity:** 10 pounds  
8.7 **EPA Pollution Category:** A  
8.8 **RCRA Waste Number:** Not listed  
8.9 **EPA FWPCA List:** Yes

### 9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid  
9.2 **Molecular Weight:** 228.35  
9.3 **Boiling Point at 1 atm:** Not pertinent  
9.4 **Freezing Point:** Not pertinent  
9.5 **Critical Temperature:** Not pertinent  
9.6 **Critical Pressure:** Not pertinent  
9.7 **Specific Gravity:** 4.05 at 25°C (solid)  
9.8 **Liquid Surface Tension:** Not pertinent  
9.9 **Liquid Water Interfacial Tension:** Not pertinent  
9.10 **Vapor (Gas) Specific Gravity:** Not pertinent  
9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent  
9.12 **Latent Heat of Vaporization:** Not pertinent  
9.13 **Heat of Combustion:** Not pertinent  
9.14 **Heat of Decomposition:** Not pertinent  
9.15 **Heat of Solution:** Not pertinent  
9.16 **Heat of Polymerization:** Not pertinent  
9.17 **Heat of Fusion:** 28.8 cal/g  
9.18 **Limiting Value:** Currently not available  
9.19 **Reid Vapor Pressure:** Currently not available

### NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
34	98.759		N O T		N O T		N O T
36	101.099		P E R T I N E N T		P E R T I N E N T		P E R T I N E N T
38	103.299						
40	105.599						
42	107.900						
44	110.200						
46	112.500						
48	114.799						
50	117.099						
52	119.400						
54	121.700						
56	123.900						
58	126.200						
60	128.500						
62	130.799						
64	133.099						
66	135.400						
68	137.699						
70	140.000						
72	142.299						
74	144.500						
76	146.799						
78	149.099						
80	151.400						
82	153.699						
84	156.000						