



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Cadmium chloride hemipentahydrate**

PRODUCT NUMBER: 1336

CAS NUMBER: 7790-78-5

SYNONYMS: Cadmium dichloride hemipentahydrate

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H301	Toxic if swallowed.
H330	Fatal if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P281	Use personal protective equipment as required.
P284	Wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P330	Rinse mouth.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 3 Chronic: * Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 3 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: May be a mild to severe irritant to the eyes.

SKIN CONTACT: May cause slight to mild irritation of the skin.

INHALATION: Inhalation of dust and fumes can lead to cough, headache, shortness of breath, chest pains, pulmonary edema, and death.

INGESTION: Ingestion may lead to sudden nausea, vomiting, bloody diarrhea, weakness, convulsions, and death.

CHRONIC HEALTH EFFECTS: Prolonged exposure to low concentrations of cadmium may result in kidney damage, anemia, pulmonary fibrosis, emphysema, perforation of the nasal septum, loss of smell, male reproductive effects, and an increased risk of cancer of the prostate, lungs, and liver.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $\text{CdCl}_2 \cdot 2.5\text{H}_2\text{O}$

Molecular Weight: 228.36

CHEMICAL NAME	CAS#	%
Cadmium Chloride Hemipentahydrate	7790-78-5	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen chloride and cadmium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust. Handle under inert gas. Protect from moisture. Air sensitive

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Hygroscopic.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Cadmium Chloride Hemipentahydrate	0.0020 mg/m ³	TWA	ACGIH
	0.1 mg/m ³	TWA	ACGIH
	0.005 mg/m ³	PEL	OSHA

TWA: Time Weighted Average over 8 hours of work.

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White solid

ODOR: None

MOLECULAR WEIGHT: 228.36

BOILING POINT: No data available

MELTING POINT: 34° C

SPECIFIC GRAVITY: 3.327 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Avoid moisture

INCOMPATIBILITY: Oxidizing agents, Interhalogens, and Alkali metals.

DECOMPOSITION PRODUCTS: Hydrogen chloride and cadmium oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 665 mg/kg

CARCINOGENIC EFFECTS: Carcinogenic to humans. Human carcinogen.

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

RTECS: EV0178000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

DOT: UN2570 Cadmium compounds (Cadmium chloride hemipentahydrate) Class 6.1 PG III	IATA: UN2570 Cadmium compound (Cadmium chloride hemipentahydrate) Class 6.1 PG III
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Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Not listed in the TSCA inventory

SARA 302/304: Not listed

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

SARA (TITLE 313): Cadmium chloride hemipentahydrate

PENNSYLVANIA RIGHT TO KNOW: Cadmium chloride hemipentahydrate

NEW JERSEY RIGHT TO KNOW: Cadmium chloride hemipentahydrate

CALIFORNIA PROP. 65: WARNING! Cadmium chloride hemipentahydrate is known to cause cancer.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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