

Cadmium

MSDS # 138.00

Section 1: Product and Company Identification**Cadmium****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Silvery, lustrous solid; no odor.***WARNING!** Highly toxic by ingestion and known carcinogen
Target organs: Kidneys, lungs.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMS (0 to 4)

Health	3
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Cadmium, (7440-43-9), >99.8%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Blue****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Cadmium compounds: OSHA PEL: 0.005 mg/m³, ACGIH: TLV: 0.01 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Cd.	Appearance	Silvery, lustrous solid..
Molecular weight	112.21.	Odor	No odor.
Specific Gravity	8.64 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	320.9°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	767°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity**Stability:** Stable under normal conditions of use and storage. Avoid heat and ignition sources.**Incompatibility:** Cadmium oxide fumes.**Shelf life:** Cadmium oxide fumes.**Section 11: Toxicology Information****Acute Symptoms/Signs of exposure:** *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.*Ingestion:* Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,**Chronic Effects:** No information found. **Sensitization:** none expected

Carcinogen; IARC group 1; NTP known; ACGIH A2

Cadmium: LD50 [oral, rat]; 225 mg/kg; LC50 [rat]; 25 mg/m³/30 min; LD50 Dermal [rabbit]; N/A*Material has not been found to produce genetic, reproductive, or developmental effects.***Section 12: Ecological Information****Ecotoxicity (aquatic and terrestrial):** Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.**Section 13: Disposal Considerations**

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Cadmium compounds.	Canada TDG:	Cadmium compounds.
DOT Hazard Class:	6.1, pg III.	Hazard Class:	6.1, pg III.
Identification Number:	UN2570.	UN Number:	UN2570.

Section 15: Regulatory Information**EINECS:** Listed (231-152-8) .**WHMIS Canada:** D1A, D2A; Very toxic material, carcinogen .**TSCA:** All components are listed or are exempt.**California Proposition 65:** Listed as a carcinogen.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information**Current Issue Date:** January 23, 2009

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