



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. CC 14  
Effective Date July 30, 1998

## SECTION V HEALTH HAZARD DATA

CC 14

**Threshold Limited Value** ACGIH-TLW 8-hour TWA (1984-85) (dust) 0.05 mg/m<sup>3</sup>; Fume 0.05 mg/m<sup>3</sup>  
OSHA-PEL 8-hour TWA (dust) 0.2 mg/m<sup>3</sup>; 0.1 mg/m<sup>3</sup>. ACGIH STEL 0.2 mg/m<sup>3</sup>.

**Effects of Overexposure** A single exposure to excessive levels of cadmium fumes or dust can cause severe lung irritation, chest pain and edema which may be fatal. Lower exposure levels may cause dryness of throat, cough, headache, shortness of breath and vomiting. **SKIN:** Possible skin irritation. Possible skin coloration. **EYES:** Mechanical irritation.

**Emergency and First Aid Procedures**

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.  
**EYES:** Flush thoroughly with water. Call physician if irritation develops.  
**SKIN:** Flush thoroughly with water, then wash with mild soap and water.  
**INGESTION:** If swallowed, if conscious, give one or two glasses of water, induce vomiting and call a physician. Never give anything by mouth to an unconscious person.

## SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid
		X	Excessive temperature above 610°F that may produce fumes.

**Incompatibility (Materials to Avoid)** Cadmium dust can react vigorously with oxidizing agents. Tarnishes in moist air. Contact with Hydrazoic acid may cause explosion. Avoid storage or use near acids or alkaline hydroxides.

**Hazardous Decomposition Products** Heat treatment, welding or soldering of cadmium metal will produce toxic cadmium oxide fumes.

Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	X
	Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Recover for use if not contaminated. Any normal clean up procedure is applicable, however, if there is any possibility of cadmium dust exposure, approved respiratory equipment should be worn.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of in accordance with federal, state and local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** If dusty or fume condition prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator for fumes.

Ventilation	Local Exhaust	Recommended.	Special	Required where there is risk of exposure.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves	Rubber, leather.	Eye Protection	Chemical safety glasses.
Other Protective Equipment	Goggles, lab coat, ventilation, proper gloves, eye wash station.		

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from corrosive materials where corrosion of cadmium metal may occur. Most operation in which cadmium oxide fume dust is produced will require process enclosure ventilation designed for the operation. Wash thoroughly after handling.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.

Personal respiratory protective equipment may be used for temporary or supplemental control. Local exhaust required for melting, grinding, and soldering operation. Remove and wash contaminated clothing. Use care in handling. Abrasive to skin.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 4	Date	7/30/98	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	CADMIUM, METAL
Chemical Synonyms	N/A
Formula	Cd
Unit Size	up to 2.5 Kg.
C.A.S. No.	7440-43-9

CHEMTREC  
800-424-9300  
Day 716-226-6177

NFPA HAZARD RATING  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

Health	3
Fire	0
Reactivity	0

HMIS \*

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Cadmium Metal	>99.8%	See Section V.
WARNING! POISONOUS FUMES MAY BE FORMED ON HEATING.		
HAZARDOUS DUST - USE ONLY WITH ADEQUATE EXHAUST VENTILATION.		
MAY BE HARMFUL IF SWALLOWED. SUSPECTED CARCINOGEN. *		

## SECTION III PHYSICAL DATA

Melting Point (°F)	320.9°C (610°F)	Specific Gravity (H <sub>2</sub> O = 1)	8.642 @ 20°C
Boiling Point (°F)	767°C (1412°F)	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate ( )	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	Insoluble.		
Appearance & Odor	Silvery-white, bluish, lustrous metal - mossy, rods, sticks; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Greater than 767°C (1412°F)	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Carbon dioxide (CO <sub>2</sub> ) or dry chemical type (ABC); sand can be used.				

## SPECIAL FIREFIGHTING PROCEDURES

Cadmium dust will burn with evolution of cadmium oxide fumes. Firefighters must wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

At temperatures above 610°F Cadmium or Cadmium oxide fumes may be evolved. Dangerous; when heated, Cadmium emits highly toxic fumes; it can react vigorously with oxidizing materials.

\* RTECS: EU9800000 CARCINOGENIC REVIEW: Animal Positive.  
Cancer hazard based on tests with laboratory animals.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20