

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Cadmium fluoride
Product Number : 307637
Brand : Aldrich
Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : CdF₂
Molecular Weight : 150.41 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Cadmium fluoride			
7790-79-6	232-222-0	048-006-00-2	-

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Target Organ Effect, Highly toxic by inhalation, Toxic by ingestion, Carcinogen

Target Organs

Kidney injury may occur., Damage to the lungs., Kidney, Lungs

HMIS Classification

Health Hazard: 4

Chronic Health Hazard: *

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 4

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation May be fatal if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation. May be fatal

Eyes
Ingestion

if absorbed through skin.
May cause eye irritation.
Toxic if swallowed.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point not applicable

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Cadmium fluoride	7790-79-6	TWA	2.5 mg/m3	1993-06-30	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	2.5 mg/m3	1993-06-30	USA. Occupational Exposure Limits (OSHA) - Table Z2
Remarks	Z37.28-1969				
		TWA	2.5 mg/m3	1989-03-01	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	See Table Z-2.				
		TWA	2.5 mg/m3	1994-09-01	USA. ACGIH Threshold Limit Values (TLV)
	Substances for which there is a Biological Exposure Index or Indices (see BEI® section)				
		TWA	0.002 mg/m3	1994-09-01	USA. ACGIH Threshold Limit Values (TLV)
	<p>Suspected human carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans.</p> <p>Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM-TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract.</p> <p>Substances for which there is a Biological Exposure Index or Indices (see BEI® section)</p> <p>Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL.</p> <p>Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens.</p>				
		TWA	0.01 mg/m3	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
	<p>Kidney damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Suspected human carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans. varies</p>				

		TWA	0.002 mg/m ³	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
	Kidney damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Suspected human carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans. varies				

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form powder
Colour white

Safety data

pH no data available
Melting point no data available
Boiling point no data available
Flash point not applicable
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Density 6.33 g/mL at 25 °C (77 °F)
Water solubility no data available

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Hydrogen fluoride, Cadmium/cadmium oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Oral - guinea pig - 150 mg/kg

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

Carcinogen

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Cadmium fluoride)

2A - Group 2A: Probably carcinogenic to humans (Cadmium fluoride)

1 - Group 1: Carcinogenic to humans (Cadmium fluoride)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Cadmium fluoride)

2A - Group 2A: Probably carcinogenic to humans (Cadmium fluoride)

1 - Group 1: Carcinogenic to humans (Cadmium fluoride)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Cadmium fluoride)

2A - Group 2A: Probably carcinogenic to humans (Cadmium fluoride)

1 - Group 1: Carcinogenic to humans (Cadmium fluoride)

NTP: Known to be human carcinogen The reference note has been added by Royal Haskoning based on the background information of the NTP. (Cadmium fluoride)

OSHA: 1910.1027 (Cadmium fluoride)

Signs and Symptoms of Exposure

Salivation, Nausea, Vomiting, Fever, Kidney injury may occur., Damage to the lungs.

Potential Health Effects**Inhalation**

May be fatal if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. May cause skin irritation. May be fatal if absorbed through skin.

Eyes

May cause eye irritation.

Ingestion

Toxic if swallowed.

Target Organs

Kidney injury may occur., Damage to the lungs., Kidney, Lungs,

Additional Information

RTECS: EV0700000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS**Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)****IMDG****IATA****15. REGULATORY INFORMATION****OSHA Hazards**

Target Organ Effect, Highly toxic by inhalation, Toxic by ingestion, Carcinogen

DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Cadmium fluoride

CAS-No.
7790-79-6

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

Cadmium fluoride

CAS-No.	Revision Date
7790-79-6	1987-01-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Cadmium fluoride

CAS-No.	Revision Date
7790-79-6	1987-01-01

New Jersey Right To Know Components

Cadmium fluoride

CAS-No.	Revision Date
7790-79-6	1987-01-01

California Prop. 65 Components

WARNING! This product contains a chemical known in the State of California to cause cancer.
Cadmium fluoride

CAS-No.
7790-79-6

Revision Date
1987-10-01

California Prop. 65 Components

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
Cadmium fluoride

CAS-No.
7790-79-6

Revision Date
1987-10-01

16. OTHER INFORMATION**Further information**

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