


SAFETY DATA SHEET

CADMIUM FLUOBORATE

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
Product Name CADMIUM FLUOBORATE Synonyms CADMIUM TETRAFLUOROBORATE Product Code 282 001 Chemical Family Inorganic, salt, aqueous Formula Cd(BF ₄) ₂ Product Use Electro Plating & Electro Deposition		
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SECTION 2 : HAZARDS IDENTIFICATION
<p>Classification of the substance or mixture</p> <p>Classification under CHIP: T: R23/24/25; Xi: R36/37/38; Xn: R40 Classification under CLP: Acute Tox. 3: H301+311+331; STOT SE 3: H335; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Carc. 2: H351</p> <p>Most important adverse effects: Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect.</p> <p>Label elements :</p> <div style="text-align: center;">  </div> <p>Signal words: Danger</p>



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**Hazard statements:**

H301+311+331: Toxic if swallowed, in contact with skin or if inhaled.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P260: Do not breathe vapours.
P271: Use only outdoors or in a well-ventilated area.

Risk phrases:

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
R36/37/38: Irritating to eyes, respiratory system and skin.
R40: Limited evidence of a carcinogenic effect.

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	EC Number(Einecs)
Cadmium Fluoborate	14486-19-2	50%	238-490-5
Water	7732-18-5	50%	231-791-2

SECTION 4 : FIRST AID MEASURES

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.



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SECTION 5 : FIRE-FIGHTING MEASURES

Extinguishing media: Carbon dioxide, dry chemical powder, foam. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

Exposure hazards: Toxic. In combustion emits toxic fumes. Hydrogen fluoride (HF). Borane/boron oxides.

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions: Notify the police and fire brigade immediately. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

SECTION 7 : HANDLING AND STORAGE

Handling requirements: Avoid direct contact with the substance. Ensure there is exhaust ventilation of the area. Avoid the formation or spread of mists in the air. Only use in fume hood.

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

Specific end use(s): No data available.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace exposure limits: No data available.

Engineering measures: Ensure there is exhaust ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Safety glasses with side-shields. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Colorless
Odor	Odorless
Molecular Weight:	286.01
Molecular Formula	(B-F4)2-Cd
Boiling Point	Not available
Freezing Point	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Specific Gravity (water=1)	1.60
Water Solubility	Soluble
pH	Not available
Volatility	Not available
Odor Threshold	Not available
Evaporation Rate	Not available
Coefficient Of Water/Oil Distribution	Not available
Solvent Solubility: Soluble	Ethanol

SECTION 10 : STABILITY AND REACTIVITY

Reactivity: Stable under recommended transport or storage conditions.

Chemical stability: Stable under normal conditions.

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Conditions to avoid: Heat. Hot surfaces. Flames.

Materials to avoid: Strong oxidising agents. Strong acids.

Haz. decomp. products: In combustion emits toxic fumes. Boron Oxides Hydrogen fluoride (HF).

SECTION 11 : TOXICOLOGICAL INFORMATION				
Toxicity values:				
Route	Species	Test	Value	Units
ORAL	RAT	LD50	250	mg/kg
Relevant hazards for substance:				
Hazard	Route	Basis		
Acute toxicity (ac. tox. 3)	INH DRM ING	Based on test data		
Skin corrosion/irritation	DRM	Based on test data		
Serious eye damage/irritation	OPT	Based on test data		
Carcinogenicity	--	Based on test data		
STOT-single exposure	INH	Based on test data		
<u>Symptoms / routes of exposure</u>				
Skin contact: There may be redness or whiteness of the skin in the area of exposure. Irritation or pain may occur at the site of contact. Absorption through the skin may be fatal.				
Eye contact: There may be severe pain. The eyes may water profusely.				
Ingestion: There may be soreness and redness of the mouth and throat. There may be vomiting. Convulsions may occur. There may be loss of consciousness.				
Inhalation: There may be shortness of breath with a burning sensation in the throat. Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. There may be loss of consciousness.				

SECTION 12 : ECOLOGICAL INFORMATION
No data available



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SECTION 13 : DISPOSAL CONSIDERATIONS

Disposal operations: MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS

Disposal of packaging: Dispose of as special waste in compliance with local and national regulations. Observe all federal, state and local environmental regulations.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

SECTION 14 : TRANSPORT INFORMATION

RID/ADR
UN#: 2570
Class: 6.1
PG: III
Proper Shipping Name: Cadmium Compound

IMDG
UN#: 2570
Class: 6.1
PG: III
Proper Shipping Name: Cadmium Compound
Marine Pollutant: No
Severe Marine Pollutant: No
Technical Name: Required

IATA
UN#: 2570
Class: 6.1
PG: III
Proper Shipping Name: Cadmium Compound
Inhalation Packing Group I: No
Technical Name: Required

SECTION 15 : REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

Acute: Yes

Chronic: Yes

Fire: No

Reactive: No

Sudden Release: No



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Cadmium and compounds
Osha Process Safety (29CFR1910.119): Not regulated.
State Regulations:
California Proposition 65:
Known to the state of California to cause the following:
Cadmium and compounds
Cancer (Oct 01, 1987)
Developmental toxicity (May 01, 1997)
Male reproductive toxicity (May 01, 1997)
Canadian Regulations:
WHMIS Classification: Not determined.
European Regulations:
EC Classification (Calculated): Not determined.
National Inventory Status:
U.S. Inventory (TSCA): Listed on inventory.
TSCA 12(b) Export Notification: Not listed.
Canada Inventory (DSL): Not determined.
Canada Inventory (NDSL): Not determined.

SECTION 16 : OTHER INFORMATION

Creation Date : 18.9.2000

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