

Material Safety Data Sheet

Material Name: CADMIUM FLUOBORATE

MSDS ID: 00202091

*****Section 1 - PRODUCT AND COMPANY IDENTIFICATION*****

Material Name: CADMIUM FLUOBORATE

Manufacturer Information

BASSTECH INTERNATIONAL LLC
400 Kelby St.
Fort Lee, NJ 07024
Phone: (201) 569-8686

Fax: (201) 569-7511
Emergency #: CHEMTREC: 800-424-9300
Email: info@basstechintl.com

Chemical Family

inorganic, salt, aqueous

Synonyms

BORATE(1-), TETRAFLUORO-, CADMIUM (2:1); BORATE(1-), TETRAFLUORO-, CADMIUM; CADMIUM TETRAFLUOROBORATE(1-) (2:1); CADMIUM TETRAFLUOROBORATE(1-); CADMIUM TETRAFLUOROBORATE; CADMIUM FLUOBORATE SOLUTION; CADMIUM FLUOROBORATE; TETRAFLUOROBORATE(1-), CADMIUM (2:1); B2CDF8; RTECS: EV0525000

*****Section 2 - HAZARDS IDENTIFICATION*****

EMERGENCY OVERVIEW

Color: colorless
Physical Form: liquid
Odor: odorless
Health Hazards: kidney damage, cancer hazard (in humans)

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: irritation, difficulty breathing, headache, dizziness, nausea, vomiting, diarrhea, chest and stomach pain, lung damage, liver damage, kidney damage
Long Term: difficulty breathing, lung damage, blood disorders, kidney damage, liver damage, nerve damage, cancer

Skin

Short Term: irritation
Long Term: no information is available

Eye

Short Term: irritation
Long Term: no information is available

Ingestion

Short Term: nausea, vomiting, diarrhea, blurred vision, headache, dizziness, liver damage, kidney damage
Long Term: same as effects reported in long term inhalation

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*****Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS*****

CAS #	Component	Percent	Symbol(s)	Risk Phrase(s)
7732-18-5	WATER 231-791-2	50.0	---	---
14486-19-2	CADMIUM FLUOBORATE 238-490-5	50.0	Xn N	R:20/21/22-50/53

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Fluorides, Cadmium inorganic compounds, Cadmium compounds, Cadmium salts.

*****Section 4 - FIRST AID MEASURES*****

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion

If a large amount is swallowed, get medical attention.

Antidote

calcium disodium edetate/dextrose, intravenous; calcium disodium edetate/procaine, intramuscular.

*****Section 5 - FIRE FIGHTING MEASURES*****

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Negligible fire hazard.

Extinguishing Media

Use extinguishing agents appropriate for surrounding fire.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

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*****Section 6 - ACCIDENTAL RELEASE MEASURES*****

Water Release

Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers. Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

Occupational spill/release

Stop leak if possible without personal risk. **Small spills:** Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Keep unnecessary people away, isolate hazard area and deny entry.

*****Section 7 - HANDLING AND STORAGE*****

Storage Procedures

Store and handle in accordance with all current regulations and standards. Store in a cool, dry place. Store in a tightly closed container. See original container for storage recommendations. Keep separated from incompatible substances.

*****Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION*****

Component Exposure Limits

CADMIUM FLUOBORATE (14486-19-2)

ACGIH: 2.5 mg/m3 TWA (as F, related to Fluorides)

OSHA: 2.5 mg/m3 TWA (as F); 2.5 mg/m3 TWA (dust, related to Fluorides)

OSHA (Vacated): 2.5 mg/m3 TWA (related to Fluorides)

Biological Limit Values

Biological Limit Values have not developed for any of component(s) of this material.

IDLH

9 mg/m3

Ventilation

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves. OSHA REGULATED SUBSTANCES: U.S. OSHA 29 CFR 1910.1027.

Protective Materials

rubber

Respiratory Protection

The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.

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OSHA Standard:

Respirator selection should comply with 29 CFR 1910.134, 29 CFR 1910.1027, and the final rule published in the Federal Register on August 24, 2006.

NIOSH Recommendations:

At any detectable concentration -

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Escape -

Any air-purifying, full-facepiece respirator equipped with an N100, R100, or P100 filter.

Any appropriate escape-type, self-contained breathing apparatus.

*****Section 9 - PHYSICAL AND CHEMICAL PROPERTIES*****

Physical State: Liquid	Appearance: Not available
Color: colorless	Physical Form: liquid
Odor: odorless	Odor Threshold: Not available
pH: Not available	Melting Point: Not available
Boiling Point: Not available	Flash Point: No data available
Evaporation Rate: Not available	Vapor Pressure: Not available
Vapor Density (air = 1): Not available	Density: Not available
Specific Gravity (water = 1): 1.60	Water Solubility: soluble
Coeff. Water/Oil Dist: Not available	Viscosity: Not available
Volatility: Not available	Molecular Weight: 286.01
Molecular Formula: (B-F4)2-Cd	

Solvent Solubility

Soluble: ethanol

*****Section 10 - STABILITY AND REACTIVITY*****

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

No data available.

Decomposition Products

oxides of cadmium, halogenated compounds

Possibility of Hazardous Reactions

Will not polymerize.

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*****Section 11 - TOXICOLOGICAL INFORMATION*****

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed, and RTECS publishes the following endpoints:

WATER (7732-18-5)

Oral: >90 mL/kg Oral Rat LD50

Component Carcinogenicity

CADMIUM FLUOBORATE (14486-19-2)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (related to Fluorides)

IARC: Monograph 100C [2012]; Monograph 58 [1993]; Supplement 7 [1987] (evaluated as a group)
(Group 1 (carcinogenic to humans), related to Cadmium compounds)

OSHA: Present (related to Cadmium compounds)

NTP: Known Human Carcinogen (related to Cadmium compounds)

DFG: Category 1 (causes cancer in man, related to Cadmium inorganic compounds)

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Target Organs

CADMIUM FLUOBORATE (14486-19-2)

kidneys

Medical Conditions Aggravated by Exposure

kidney disorders, respiratory disorders

RTECS Tumorigenic

No data available.

RTECS Mutagenic

No data available.

RTECS Reproductive Effects

No data available.

*****Section 12 - ECOLOGICAL INFORMATION*****

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

*****Section 13 - DISPOSAL CONSIDERATIONS*****

Disposal Methods

Dispose in accordance with all applicable regulations. Hazardous Waste Number(s): D006. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 1.0 mg/L.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

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*****Section 14 - TRANSPORT INFORMATION*****

US DOT Information

Shipping Name: Cadmium compounds
UN/NA #: UN2570 **Hazard Class:** 6.1 **Packing Group:** III
Required Label(s): 6.1

Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Component	CAS	
CADMIUM FLUOBORATE	14486-19-2	DOT regulated severe marine pollutant (related to Cadmium compounds)

TDG Information

No Classification assigned.

ADR Information

No Classification assigned.

RID Information

No Classification assigned.

IATA Information

No Classification assigned.

ICAO Information

No Classification assigned.

IMDG Information

No Classification assigned.

*****Section 15 - REGULATORY INFORMATION*****

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

CADMIUM FLUOBORATE (14486-19-2)

SARA 313: 0.1 % de minimis concentration (related to Cadmium compounds)

SARA 311/312

Acute Health: Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactive:** No

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U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
CADMIUM FLUOBORATE (*related to: Fluorides)	14486-19-2	Yes ¹	No	Yes ¹	Yes ¹	Yes ¹

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Canadian Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on the IDL.

CADMIUM FLUOBORATE (14486-19-2)

1 %

EU Marking and Labelling

Symbols

Xn Harmful

N Dangerous for the environment

Risk Phrases

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Germany Water Classification

No components of this material are listed.

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
CADMIUM FLUOBORATE	14486-19-2	Yes	DSL	EIN	Yes	No	No	Yes	No	Yes
WATER	7732-18-5	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes

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*****Section 16 - OTHER INFORMATION*****

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Component Analysis

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other Information

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

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