
SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

BASSTECH INTERNATIONAL LLC
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SUBSTANCE: CADMIUM FLUOBORATE

TRADE NAMES/SYNONYMS:

BORATE(1-), TETRAFLURO-, CADMIUM (2:1); BORATE(1-), TETRAFLURO-, CADMIUM;
CADMIUM TETRAFLUROBORATE(1-) (2:1); CADMIUM TETRAFLUROBORATE(1-); CADMIUM
TETRAFLUROBORATE; CADMIUM FLUOBORATE SOLUTION; CADMIUM FLUROBORATE;
TETRAFLUROBORATE(1-), CADMIUM (2:1); B2CDF8; 00202091; RTECS EV0525000

CHEMICAL FAMILY: inorganic, salt, aqueous

CREATION DATE: Oct 08 1998
REVISION DATE: Dec 11 2001

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: CADMIUM FLUOBORATE
CAS NUMBER: 14486-19-2
EC NUMBER (EINECS): 238-490-5
PERCENTAGE: 50.0

COMPONENT: WATER
CAS NUMBER: 7732-18-5
EC NUMBER (EINECS): 231-791-2
PERCENTAGE: 50.0

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=0

EMERGENCY OVERVIEW:

COLOR: colorless
PHYSICAL FORM: liquid
ODOR: odorless
MAJOR HEALTH HAZARDS: kidney damage, cancer hazard (in humans)

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation, difficulty breathing, headache, dizziness,
nausea, vomiting, diarrhea, chest and stomach pain, lung damage, liver
damage, kidney damage

LONG TERM EXPOSURE: difficulty breathing, lung damage, blood disorders,
kidney damage, liver damage, nerve damage, cancer

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation
LONG TERM EXPOSURE: no information is available

EYE CONTACT:

SHORT TERM EXPOSURE: irritation
LONG TERM EXPOSURE: no information is available

INGESTION:

SHORT TERM EXPOSURE: nausea, vomiting, diarrhea, blurred vision, headache, dizziness, liver damage, kidney damage
LONG TERM EXPOSURE: same as effects reported in long term inhalation

CARCINOGEN STATUS:

OSHA: No
NTP: Yes
IARC: Yes

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 CONTACT: 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.

EYE CONTACT: 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

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

FIRE FIGHTING: 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.

FLASH POINT: No data available.

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 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: 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

EXPOSURE LIMITS:

CADMIUM FLUOBORATE:

CADMIUM (as Cd):

- 0.005 mg/m³ OSHA TWA
- 0.0025 mg/m³ OSHA action level
- 0.2 mg/m³ OSHA TWA (dust)
- 0.6 mg/m³ OSHA ceiling (dust)
- 0.1 mg/m³ OSHA TWA (fume)
- 0.3 mg/m³ OSHA ceiling (fume) (vacated by 58 FR 35338, June 30, 1993)
- 0.01 mg/m³ ACGIH TWA
- 0.002 mg/m³ ACGIH TWA (respirable particulate)

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

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

CLOTHING: Wear appropriate chemical resistant clothing.

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

PROTECTIVE MATERIAL TYPES: rubber

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

0.05 mg/m³

Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter.

0.125 mg/m³

Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Any supplied-air respirator with a full facepiece.

Any supplied-air respirator operated in a continuous-flow mode.

0.25 mg/m³

Any air-purifying respirator with a full facepiece and a high-efficiency

particulate filter.

Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Any supplied-air respirator with a full facepiece.

Any supplied-air respirator operated in a continuous-flow mode.

1.25 mg/m³

Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Any supplied-air respirator with a full facepiece.

Any supplied-air respirator operated in a continuous-flow mode.

5 mg/m³

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

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

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 at normal temperatures and pressure.

CONDITIONS TO AVOID: None reported.

INCOMPATIBILITIES: No data available.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: oxides of cadmium, halogenated compounds

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

CADMIUM FLUOBORATE:

CARCINOGEN STATUS: NTP: Known Human Carcinogen; IARC: Human Sufficient Evidence, Animal Sufficient Evidence, Group 1 (Cadmium and cadmium compounds); ACGIH: A2 -Suspected Human Carcinogen (Cadmium and cadmium compounds)

ACUTE TOXICITY LEVEL: Insufficient Data.

TARGET ORGANS: kidneys

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: kidney disorders, respiratory disorders

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

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.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Cadmium compounds (CADMIUM FLUOBORATE)

ID NUMBER: UN2570

HAZARD CLASS OR DIVISION: 6.1

PACKING GROUP: III

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

SARA TITLE III SECTION 313 (40 CFR 372.65):
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

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