



Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 668

Date of review: February 7, 2013

1 Identification of substance and company

Product name: **Cadmium Fluoride**
Product code: 11610, 17513
Relevant use and restrictions on use: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation
1 Noah Park
San Antonio, Texas 78249-3419
Phone: 210-691-2000
Fax: 210-691-2600
Web site: www.noahtech.com
Emergency information: CHEMTREC
800-424-9300

2 Hazards identification

Emergency Overview:



Signal word(s): Danger
Pictogram(s): Skull and crossbones
Health hazard
Environment
Hazard statements: H301 Toxic if swallowed
H330 Fatal if inhaled
H340 May cause genetic defects
H350 May cause cancer
H360 May damage fertility or the unborn child
H372 Causes damage to the lungs, the kidneys, the reproductive system and the blood through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects
Precautionary statements: P260 Do not breathe dust / fume / gas / mist / vapours / spray
P285 In case of inadequate ventilation, wear respiratory protection
P270 Do not eat, drink or smoke when using this product
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician
P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340+310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician
P305+351+338/310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P308+313 IF exposed or concerned: Get medical advice/attention
Hazards not otherwise classified: None
Ingredients of unknown acute toxicity: None
GHS Classification: Acute toxicity, Oral - 3
Acute toxicity, Inhalation - 2
Germ cell mutagenicity - 1B
Carcinogenicity - 1B
Reproductive toxicity - 1B
Specific target organ toxicity - repeated exposure - 1
Acute aquatic toxicity - 1
Chronic aquatic toxicity - 1
HMIS ratings (scale 0-4): Health hazard: 2
Flammability: 0
Physical hazard: 0

3 Composition/Information on ingredients

Chemical name: Cadmium fluoride
Designation:
CAS number: 7790-79-6
EC number: 232-222-0
Formula: CdF₂

Synonyms:**Ingredients of known acute toxicity:** Cadmium fluoride**4 First aid measures**

After inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.
After ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Information for doctor: Show this safety data sheet to the doctor in attendance
Symptoms/effects; acute and delayed: May be fatal if inhaled or swallowed. Exposure can cause nausea, headache and vomiting.
Immediate medical attention and special treatment needed: See above

5 Fire-fighting measures

Suitable and unsuitable extinguishing agents: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special hazards caused by the material, its products of combustion or resulting gases: Hydrogen fluoride; oxides of cadmium
Special fire fighting procedures: Wear self-contained breathing apparatus and fully protective fire fighting equipment/clothing
Unusual fire and explosion hazard: No available data

6 Accidental release measures

Person-related safety precautions: Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Measures for environmental protection: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Measures for cleaning/collecting: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for proper disposal.
Additional information: See Section 7 for information on safe handling
See Section 8 for information on personal protective equipment
See Section 13 for information on disposal
See Section 15 for regulatory information

7 Handling and storage

Information for safe handling: Avoid contact with skin and eyes. Avoid dust formation. Provide appropriate exhaust ventilation.
Information about protection against explosions and fires: No data available
Storage requirements to be met by storerooms and containers: Keep container tightly closed in a dry and well-ventilated place
Incompatibility (avoid contact with): Strong oxidizers; Strong bases; Reacts violently with potassium and other alkali metals
Further information about storage conditions: No data available

8 Exposure controls/personal protection

Ventilation requirements: Local exhaust, chemical fume hood
Components with exposure limits that require monitoring: OSHA PEL: TWA 0.005 mg(Cd)/m³; CL 0.6 mg(Cd)/m³ (dust); 2.5 mg(F)/m³
ACGIH TLV: TWA 0.01 mg(Cd)/m³ (dust)
Additional information: No additional data available
General protective and hygienic measures: The usual precautionary measures for handling chemicals should be adhered to
Keep away from foodstuffs, beverages and food
Instantly remove any soiled and impregnated garments
Wash hands during breaks and at the end of the work
Avoid contact with the eyes and skin
Personal protective equipment:
Respiratory protection: Filter-dust, fume, mist; respirator equipped with HEPA
(Use only NIOSH or CEN approved Equipment)
Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique.
Eye protection: Safety goggles
Skin protection: Completely covering work attire with full length apron
Additional protective equipment: Sufficient to prevent contact. Emergency eyewash and safety shower
Precautionary labeling: Wash thoroughly after handling
Do not get in eyes, on skin or on clothing
Do not breathe dust, vapor, mist, gas
Keep away from heat, sparks, and open flames
Empty container may contain hazardous residues

9 Physical and chemical properties

Physical state: Cubic crystals or powder
Color: White
Odor: Odorless
Odor threshold: Not determined

Molecular Weight (Calculated):	150.4
pH	Not determined
Melting point/freezing point/range:	1100 C
Boiling point/range:	1758 C
Sublimation temperature/start:	Not determined
Decomposition temperature:	Not determined
Flammability (solid, gas):	Not determined
Flash point:	Not determined
Autoignition temperature:	Not determined
Danger of explosion:	Not determined
Flammable limits:	
Lower:	Not determined
Upper:	Not determined
Evaporation Rate:	Not determined
Vapor pressure (mm Hg):	Not determined
Vapor density:	Not determined
Specific gravity:	6.64 g/cm ³ @ 20 C
Bulk density:	Not determined
Solubility in/Miscibility with water:	43.5 g/L @ 25 C
Partition coefficient n-octanol/water:	Not determined
Viscosity:	Not determined
Other information:	Not determined

10 Stability and reactivity

Reactivity:	Not determined
Chemical stability:	Stable under recommended storage conditions
Possibility of hazardous reactions:	No data available
Conditions to be avoided:	No data available
Materials to be avoided:	Strong oxidizers; Strong bases; Reacts violently with potassium and other alkali metals
Dangerous reactions:	No data available
Hazardous decomposition products: (thermal and other)	Hydrogen fluoride, oxides of cadmium

11 Toxicological information

LD/LC50 values that are relevant for classification:	scu-frg LDLo: 280 mg/kg
Irritation or corrosion of skin:	No data available
Irritation or corrosion of eyes:	No data available
Primary irritant or corrosive effect:	
on the skin:	Mild irritation
on the eye:	Moderate irritation
Sensitization:	No data available
Potential health effects:	
Inhalation:	May be fatal
Ingestion:	May be fatal
Skin:	No data available
Eyes:	No data available
Signs and symptoms of exposure:	May be fatal if inhaled or swallowed. Poison by subcutaneous route. Exposure can cause nausea, headache, vomiting, damage to the kidney and damage to the lungs. Symptoms of fluoride overexposure may include salivation, nausea, vomiting, abdominal pain, fever and labored breathing. Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcaemia. Prolonged exposure to fluoride dusts, vapors or mists results in perforation of the nasal septum. Chronic effects include excessive calcification of the bones, ligaments and tendons.
Carcinogenicity:	EPA-B1: Probable human carcinogen, limited evidence of carcinogenicity from epidemiologic studies IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity NTP-1: Known to be carcinogenic: sufficient evidence from human studies ACGIH-A2: Suspected human carcinogen: Agent is carcinogenic in experimental animals at dose levels, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans. Carcinogen as defined by OSHA
Additional information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known

12 Ecotoxicological information

Toxicity:	
Toxicity to fish:	No data available
Toxicity to daphnia and other aquatic invertebrates:	No data available
Toxicity to algae:	No data available
Persistence and degradability:	
Biodegradability:	No data available
Bioaccumulative potential:	
Bioaccumulation:	No data available

Mobility in soil: No data available
Other adverse effects: Very toxic to aquatic life with long lasting effects

13 Disposal considerations

Recommendation: Consult state, local or national regulation for proper disposal
Allow professional disposal company to handle waste
Must be specially treated under adherence to official regulations

Unclean packagings recommendation: Disposal must be made according to official regulations

14 Transport information

Land transport DOT



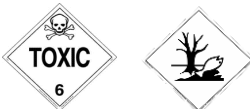
Proper shipping name: Cadmium compounds
Technical name: Cadmium fluoride
DOT Hazard Class: 6.1
UN Identification number: UN2570
Label(s): PGIII and Marine Pollutant
Packing group: III
North American Emergency Response Guidebook No.: 154

Air transport ICAO-TI and IATA-DGR:



Proper shipping name: Cadmium compounds
Technical name: Cadmium fluoride
DOT Hazard Class: 6.1
UN Identification number: UN2570
Label(s): Toxic and Marine Pollutant
Packing group: III
North American Emergency Response Guidebook No.: 154

UPS Ground / FedEx Ground



Proper shipping name: Cadmium compounds
Technical name: Cadmium fluoride
DOT Hazard Class: 6.1
UN Identification number: UN2570
Label(s): PGIII and Marine Pollutant
Packing group: III
North American Emergency Response Guidebook No.: 154

UPS Air



Proper shipping name: Cadmium compounds
Technical name: Cadmium fluoride
DOT Hazard Class: 6.1
UN Identification number: UN2570
Label(s): DOT-SP-8249 and Marine Pollutant
Packing group: III
North American Emergency Response Guidebook No.: 154

15 Regulatory information

SARA Section 302 Extremely Hazardous components and corresponding TPQs: Not subject

SARA Section 311 / 312 hazards:

Acute Health Hazard, Chronic Health Hazard

SARA Section 313 components:

This product contains chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-to-know Act of 1986 and 40CFR372

California Proposition 65 components:

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

TSCA:

Product is listed on TSCA Inventory

16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.