



## Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 420

Review Date: August 14, 2018

### 1 Identification of substance and company

**Product name:** **Calcium Fluoride**

**Product code:** 11175, 11751, 13558, 14285, 16106, 90813, C2818

**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

**Hazard statements:** Not a hazardous substance or mixture

**Hazards not otherwise classified:** None

**HMIS ratings (scale 0-4):**

Health hazard:	1
Flammability:	0
Physical hazard:	0

### 3 Composition/Information on ingredients

**Chemical name:** Calcium Fluoride

**CAS number:** 7789-75-5

**EC number:** 232-188-7

**Formula:** CaF<sub>2</sub>

**Synonyms:** Fluorspar; Calcium difluoride, Fluorite

**Ingredients of known acute toxicity:** Calcium Fluoride

### 4 First aid measures

**After inhalation:** Move victim into fresh air. If not breathing, give artificial respiration. Consult a physician.

**After skin contact:** Wash off with soap and plenty of water. Consult a physician.

**After eye contact:** Flush with plenty of water for at least 15 minutes. Get medical attention.

**After ingestion:** 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:** Loss of appetite, nausea, digestive symptoms, chills, labored breathing, fever, unproductive cough.

**Immediate medical attention and special treatment needed:** No data available.

### 5 Fire-fighting measures

**Suitable and unsuitable extinguishing agents:** Water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing media suitable to surrounding fire conditions.

**Special hazards caused by the material, its products of combustion or resulting gases:** Hydrogen fluoride and oxides of calcium.

**Special fire fighting procedures:** Wear self-contained breathing apparatus. Always wear full fire fighting equipment / clothing in fire situations.

**Unusual fire and explosion hazard:** No data available

### 6 Accidental release measures

**Person-related safety precautions:** Use personal protective equipment. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation.

<b>Measures for environmental protection:</b>	Do not let product enter drains.
<b>Measures for cleaning/collecting:</b>	Sweep or scoop up and remove. Avoid dusting. Keep in suitable, closed container for disposal.
<b>Additional information:</b>	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

<b>Information for safe handling:</b>	Avoid formation of dust and aerosols. Ensure adequate ventilation.
<b>Information about protection against explosions and fires:</b>	No data available.
<b>Storage requirements to be met by storerooms and containers:</b>	Store in tightly closed containers. Keep container closed. Store in a cool, dry place. Hygroscopic.
<b>Incompatibility (avoid contact with):</b>	Strong acids. Strong alkalis. Chemically active metals; reducing agents.
<b>Further information about storage conditions:</b>	Keep away from heat. Keep away from water / moisture. Product is hygroscopic

## 8 Exposure controls/personal protection

<b>Ventilation requirements:</b>	Local exhaust.
<b>Components with exposure limits that require monitoring:</b>	OSHA PEL: TWA 2.5 mg (F) / m3 ACGIH TLV: TWA 2.5 mg (F) / m3 NIOSH REL: TWA 2.5 mg (F) / m3 (inorganic fluorides)
<b>General protective and hygienic measures:</b>	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
<b>Personal protective equipment:</b>	
<b>Respiratory protection:</b> (Use only NIOSH or CEN approved Equipment)	Filter-dust, fume, mist
<b>Hand protection:</b>	Handle with gloves: Neoprene / Natural rubber / Impervious Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with product.
<b>Eye protection:</b>	Goggles
<b>Skin protection:</b>	Protective work clothing sufficient to prevent contact.
<b>Additional protective equipment:</b>	Emergency eyewash and safety shower.

## 9 Physical and chemical properties

<b>Physical state:</b>	Powder
<b>Color:</b>	White to tan
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available
<b>Molecular Weight (Calculated):</b>	78.08
<b>pH</b>	No data available
<b>Melting point/freezing point/range:</b>	1403 C
<b>Boiling point/range:</b>	2500 C
<b>Decomposition temperature:</b>	No data available
<b>Flammability (solid, gas):</b>	Non-flammable
<b>Flash point:</b>	No data available
<b>Autoignition temperature:</b>	No data available
<b>Danger of explosion:</b>	No data available
<b>Flammable limits:</b>	
<b>Lower:</b>	No data available
<b>Upper:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Vapor pressure (mm Hg):</b>	No data available
<b>Vapor density:</b>	No data available
<b>Specific gravity:</b>	3.180 g/cm3 @ 25 C
<b>Bulk density:</b>	No data available
<b>Solubility in/Miscibility with water:</b>	0.016 g/L @ 18 C
<b>Partition coefficient n-octanol/water:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Other information:</b>	No data available

## 10 Stability and reactivity

<b>Reactivity:</b>	No data available
<b>Chemical stability:</b>	Stable under recommended storage conditions
<b>Possibility of hazardous reactions:</b>	No data available
<b>Conditions to be avoided:</b>	Heat. Contact with incompatibles. Water / moisture - product is hygroscopic. See section 7 for information on proper handling and storage
<b>Materials to be avoided:</b>	Strong acids. Strong alkalis. Chemically active metals; reducing agents.
<b>Dangerous reactions:</b>	No data available
<b>Hazardous decomposition products: (thermal and other)</b>	Hydrogen fluoride and oxides of calcium.

## 11 Toxicological information

<b>LD/LC50 values that are relevant for classification:</b>	oral-rat LD <sub>50</sub> : 4250 mg / kg oral-guinea pig LD <sub>50</sub> : > 5000 mg / kg
<b>Irritation or corrosion of skin:</b>	No data available
<b>Irritation or corrosion of eyes:</b>	No data available
<b>Primary irritant or corrosive effect: on the skin:</b>	Moderate
<b>on the eye:</b>	Moderate
<b>Sensitization:</b>	No data available
<b>Potential health effects:</b>	
<b>Inhalation:</b>	May cause irritation to the mucous membranes and upper respiratory tract.
<b>Ingestion:</b>	No data available
<b>Skin:</b>	May cause dermatitis
<b>Eyes:</b>	No data available
<b>Signs and symptoms of exposure:</b>	Inhalation: loss of appetite, nausea, digestive symptoms, chills, labored breathing, fever, unproductive cough. Mildly toxic by ingestion. An experimental teratogen. Mutagenic data.
<b>Carcinogenicity:</b>	IARC: Group 3 - Not classifiable as to its carcinogenicity to humans. NTP: No component of this product is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product is identified as a carcinogen or potential carcinogen by OSHA.
<b>Additional information:</b>	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known

## 12 Ecotoxicological information

<b>Toxicity:</b>	
<b>Toxicity to fish:</b>	No data available
<b>Toxicity to daphnia and other aquatic invertebrates:</b>	No data available
<b>Toxicity to algae:</b>	No data available
<b>Persistence and degradability:</b>	
<b>Biodegradability:</b>	No data available
<b>Bioaccumulative potential:</b>	
<b>Bioaccumulation:</b>	No data available
<b>Mobility in soil:</b>	No data available
<b>Other adverse effects:</b>	No data available

## 13 Disposal considerations

<b>Recommendation:</b>	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
<b>Unclean packagings recommendation:</b>	Disposal must be made according to official regulations

## 14 Transport information

### Land transport DOT

<b>Proper shipping name:</b>	Chemicals Non-Hazardous
<b>Technical name:</b>	Calcium fluoride

### Air transport ICAO-TI and IATA-DGR:

<b>Proper shipping name:</b>	Chemicals Non-Hazardous
<b>Technical name:</b>	Calcium fluoride

**UPS Ground / FedEx Ground**

**Proper shipping name:** Chemicals Non-Hazardous  
**Technical name:** Calcium fluoride

**UPS Air**

**Proper shipping name:** Chemicals Non-Hazardous  
**Technical name:** Calcium fluoride

**15 Regulatory information**

**SARA Section 302 Extremely Hazardous components and corresponding TPQs:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302  
**SARA Section 311 / 312 hazards:** No SARA Hazards  
**SARA Section 313 components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313  
**California Proposition 65 components:** This product does not contain any chemicals known to the State of California to cause birth defects or any other reproductive harm.  
**TSCA:** Product is listed on the 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.