



Safety Data Sheet

According to 29 CFR 1910.1200 (OSHA HCS)

SDS No. 2610

Review Date: August 16, 2018

1 Identification of substance and company

Product details

Product name: *Tin (II) Fluoride*
Product code: 14870, 14881
Relevant identified uses of the substance: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation

1 Noah Park
San Antonio, Texas 78249-3419
Phone: (210) 691-2000
Web site: www.noahtech.com

Emergency information:

CHEMTREC
800-424-9300

2 Hazards identification

Pictogram:



Signal word

Danger

Hazard statements:

H302 Harmful if swallowed
H315 Causes skin irritation
H318 Causes serious eye damage

Precautionary statements:

P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P301+312+330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P302+352 IF ON SKIN: Wash with plenty of soap and water
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician
P332+313 If skin irritation occurs: Get medical advice / attention
P362 Take off contaminated clothing and wash before reuse
P501 Dispose of contents/ container to an approved waste disposal plant

GHS Classification in accordance with 29CFR1910:

Acute oral toxicity - 4
Skin irritation - 2
Serious eye damage - 1

Hazards not otherwise classified:

Strong hydrogen fluoride-releaser

HMIS ratings (scale 0-4):

Health	2
Flammability	0
Physical hazard	0

3 Composition/Information on ingredients

Chemical name: Tin (II) fluoride
Designation: (CAS#): 7783-47-3
EC Number: 231-999-3
Formula: SnF₂
Synonyms: Stannous fluoride, tin difluoride, fluoristan

4 First aid measures

After inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical advice
After skin contact:	Instantly wash with water and soap and rinse thoroughly Seek immediate medical advice
After eye contact:	Rinse opened eye for at least 15 minutes under running water. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical advice
After swallowing:	If conscious, rinse mouth out with water and seek immediate medical advice. Never give anything by mouth to an unconscious individual.
Information for doctor:	
The following symptoms may occur:	Symptoms of acute fluoride overdosage include hypersalivation, a salty or soapy taste, epigastric pain, nausea, vomiting, burning or crampy abdominal pain, diarrhea, dehydration, thirst, localized or generalized urticaria, muscle weakness, tremors, and, rarely, transient epileptiform seizures. Shock may occur and is characterized by pallor, weak and thready pulse which may be irregular, wet cold skin, dilated pupils, cyanosis, shallow unlabored respiration, and weak heart sounds. Death may result from cardiac failure, respiratory arrest, or shock and usually occurs within 2-4 hr following ingestion; if a victim survives the first 24 hr, the prognosis is good. When death is delayed, paralysis of the muscles of deglutition, carpopedal spasm, and spasm of the extremities may occur.

5 Fire-fighting measures

Suitable 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 tin
Protective equipment:	Wear self-contained breathing apparatus Wear fully protective fire fighting equipment/clothing in fire situations

6 Accidental release measures

Person-related safety precautions:	Wear personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Measures for environmental protection:	Do not let product enter drains.
Measures for cleaning/collecting:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for 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

7 Handling and storage

Information for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage requirements to be met by storerooms and containers:	Do not store in glass
Information about storage in one common storage facility:	Store away from strong acids, water, moisture (hygroscopic).
Further information about storage conditions:	Keep container tightly sealed Store in cool, dry conditions in well sealed containers

8 Exposure controls/personal protection

Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute
Components with critical values that require monitoring at the workplace:	ACGIH TLV: TWA 2 mg(Sn)/m ³ ; 2.5 mg (F)/m ³ : Bone damage, fluorosis, not classifiable as a human carcinogen OSHA PEL: TWA 2 mg(Sn)/m ³ :8H NIOSH IDLH: 250 mg/m ³
Additional information:	No data
Personal protective equipment:	
General protective and hygienic measures:	The usual precautionary measures should be adhered to in handling the chemicals Keep away from foodstuffs, beverages and food Instantly remove any soiled and contaminated garments Wash hands during breaks and at the end of the work Avoid contact with the eyes and skin
Respiratory protection:	Filter-dust/ fume, mist. Air purifying respirator, if dust fumes are present Use only NIOSH/MESA or CEN approved dust mask type N95 or TYPE P1 (EN 143)
Hand protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without

touching glove's outer surface) to avoid skin contact with this product.

Eye protection:	Neoprene, Polyvinyl chloride, Natural rubber, Nitrile
Skin protection:	Face shield and safety glasses
Additional protective equipment:	Protective work clothing
	Sufficient to prevent contact
	Emergency eyewash and safety shower

9 Physical and chemical properties

General Information:	
Physical state:	Crystalline powder
Color:	White
Smell:	May have slight acid odor
Molecular Weight (Calculated):	156.69
pH (5% solution)	No data available
Melting point/range:	213 C
Boiling point/range:	850 C
Sublimation temperature/start:	No data available
Flash point:	Non-flammable
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Danger of explosion:	No data available
Flammable limits:	Non-flammable
Lower:	No data available
Upper:	No data available
Vapor pressure (mm Hg):	No data available
Density at 20 °C	4.57 g/cm ³ @ 20 C
Solubility in/Miscibility with water at 0 °C	~ 30 wt%

10 Stability and reactivity

Conditions to be avoided:	No decomposition if used and stored according to specifications See section 7 for information on proper handling and storage
Materials to be avoided:	Glass Strong Acids Water, moisture (hygroscopic) Forms an insoluble oxyfluoride on exposure to air
Dangerous reactions:	No data available
Hazardous decomposition products:	Hydrogen fluoride, oxides of tin

11 Toxicological information

Acute toxicity:	
LD/LC50 values that are relevant for classification:	oral-rat LD ₅₀ : 360 mg/kg skin-rat LD ₅₀ : > 2000 mg/kg oral-mouse LD ₅₀ : 184 mg/kg
Primary irritant effect:	
on the skin:	Moderate
on the eye:	Severe
Sensitization:	No sensitizing effect known
Inhalation:	Irritation in mucous membranes
Additional toxicological information:	Inorganic fluorides are generally highly irritating and toxic. Acute effects resulting from exposure to fluorine compounds are due to HF. The estimated human lethal dose is 2.5 to 5.9 g of F+. Large doses can cause severe nausea, vomiting, diarrhea, abdominal burning and cramp-like pains. It is not taken up by the thyroid and does not interfere with iodine uptake. Can cause or aggravate attacks of asthma and severe bone changes, making normal movements painful. Some signs of pulmonary fibrosis are noted. Some enzyme systems effects are reported. Irritants to the eyes, skin and mucous membranes. Loss of weight, anorexia, anemia, wasting and cachexia and dental defects are among the common findings in chronic fluorine poisoning. Symptoms of intoxication include gastric, intestinal, circulatory, respiratory and nervous complaints and skin rashes.
Carcinogenicity:	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH
Additional information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known

12 Ecological information

Toxicity:	
to fish:	No data available

to daphnia and other aquatic invertebrates:
to algae:

No data available
No data available

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: Corrosive solid, n.o.s.
Technical name: Tin (II) fluoride
DOT Hazard Class: 8
UN Identification number: UN1759
Label(s): Corrosive
Packaging group: III
North American Emergency Response Guidebook No.: 154

Air transport ICAO-TI and IATA-DGR:



Proper shipping name: Corrosive solid, n.o.s.
Technical name: Tin (II) fluoride
DOT Hazard Class: 8
UN Identification number: UN1759
Label(s): Corrosive
Packaging group: III
North American Emergency Response Guidebook No.: 154

UPS Ground / FedEx Ground:



Proper shipping name: Corrosive solids, n.o.s.
Technical name: Tin (II) fluoride
DOT Hazard Class: 8
UN Identification number: UN1759
Label(s): Corrosive
Packaging group: III
North American Emergency Response Guidebook No.: 154

UPS Air:



Proper shipping name: Corrosive solids, n.o.s.
Technical name: Tin (II) fluoride
DOT Hazard Class: 8
UN Identification number: UN1759
Label(s): Corrosive
Packaging group: III
North American Emergency Response Guidebook No.: 154

15 Regulatory information

SARA Section 302 Extremely Hazardous components and corresponding TPQs: No chemicals in this material are subject to the requirements of SARA Title III, Section 302
SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard
SARA Section 313 components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (de Minimis) 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 cancer, birth defects or any other reproductive harm.
TSCA: This product is listed in 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.