



Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 1170

Date of review: April 4, 2019

1 Identification of substance and company

Product name: Indium (III) fluoride, anhydrous
Product code: 12924
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:

Pictogram(s):



Signal word(s):

Warning

Hazard statements:

H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash skin thoroughly after handling
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/eye protection/face protection
P302+352 IF ON SKIN: Wash with plenty of soap and water
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell
P321 Specific treatment (see additional information on this label)
P332+313 If skin irritation occurs: Get medical advice/attention
P337+313 If eye irritation persists: Get medical advice/attention
P362 Take off contaminated clothing
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up
P501 Dispose of contents/ container to an approved waste disposal plant

GHS Classification:

Skin irritation - 2
Eye irritation - 2A
Specific target organ toxicity - single exposure - 3, Respiratory system

Hazards not otherwise classified:

Contact with water liberates toxic gas
Strong hydrogen fluoride-releaser

HMIS ratings (scale 0-4):

Health hazard: 2*
Flammability: 0
Physical hazard: 0

3 Composition/Information on ingredients

Chemical name: Indium (III) fluoride, anhydrous
Designation:
CAS number: 7783-52-0
EC number: 232-005-0

Formula: InF₃
Synonyms: Indium trifluoride

4 First aid measures

After inhalation: Move person 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: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
After ingestion: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Consult a physician.
Information for doctor: Show this safety data sheet to the doctor in attendance
Symptoms/effects; acute and delayed: May cause skin, eye or respiratory irritation. 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.

Immediate medical attention and special treatment needed: Treat symptomatically

5 Fire-fighting measures

Suitable and unsuitable extinguishing agents: Use 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 indium
Special fire fighting procedures: Wear self-contained breathing apparatus (SCBA) and fully protective fire fighting equipment/clothing
Unusual fire and explosion hazard: No data available

6 Accidental release measures

Person-related safety precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Measures for environmental protection: Do not let product enter drains
Measures for cleaning/collecting: Sweep or scoop up and remove. Place in a suitable container 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 formation of dust. Use with adequate ventilation.
Information about protection against explosions and fires: Normal measures for preventive fire protection
Storage requirements to be met by storerooms and containers: Keep container tightly closed in a dry and well-ventilated place
Never allow product to get in contact with water during storage
Keep in a dry place. Do NOT store in glass.
Incompatibility (avoid contact with): Strong acids and oxidizers, powdered metals, moist air or water, glass
Further information about storage conditions: No further information available

8 Exposure controls/personal protection

Ventilation requirements: Fume hood or local exhaust
Components with exposure limits that require monitoring: OSHA PEL: TWA 2.5 mg(F)/m³
ACGIH TLV: TWA 2.5 mg(F)/m³; 0.1 mg(In)/m³
Additional information: No further information 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
(Use only NIOSH or CEN approved Equipment)
Hand protection: Impervious gloves
Eye protection: Safety glasses with side-shields
Skin protection: Protective work clothing
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, or gas

9 Physical and chemical properties

Physical state: Powder

Color:	White
Odor:	Odorless
Odor threshold:	No data available
Molecular Weight (Calculated):	171.82
pH	No data available
Melting point/freezing point/range:	1170 C
Boiling point/range:	> 1200 C
Sublimation temperature/start:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Flash point:	No data available
Autoignition temperature:	No data available
Danger of explosion:	No data available
Flammable limits:	No data available
Lower:	No data available
Upper:	No data available
Evaporation Rate:	No data available
Vapor pressure (mm Hg):	No data available
Vapor density:	No data available
Specific gravity:	4.39
Bulk density:	No data available
Solubility in/Miscibility with water:	0.4 g/L @ 25 C
Partition coefficient n-octanol/water:	No data available
Viscosity:	No data available

10 Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable
Possibility of hazardous reactions:	May react violently with water
Conditions to be avoided:	Water/moisture (hygroscopic) See section 7 for information on proper handling and storage
Materials to be avoided:	Strong acids and oxidizers, powdered metals, moist air or water, glass
Dangerous reactions:	No data available
Hazardous decomposition products: (thermal and other)	Hydrogen fluoride, oxides of indium

11 Toxicological information

LD/LC50 values that are relevant for classification:	No data available
Irritation or corrosion of skin:	No data available
Irritation or corrosion of eyes:	No data available
Primary irritant or corrosive effect: on the skin:	May cause irritation
on the eye:	May cause irritation
Sensitization:	No data available
Potential health effects:	
Inhalation:	May cause irritation to the upper respiratory tract and mucous membranes
Ingestion:	No data available
Skin:	May cause irritation
Eyes:	May cause irritation
Signs and symptoms of exposure:	May cause skin, eye or respiratory irritation. 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. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Carcinogenicity:	No data available
Additional information:	No additional information available

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: No additional information 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: Chemicals Non-Hazardous
Technical name: Indium (III) fluoride, anhydrous

Air transport ICAO-TI and IATA-DGR:

Proper shipping name: Chemicals Non-Hazardous
Technical name: Indium (III) fluoride, anhydrous

UPS Ground / FedEx Ground

Proper shipping name: Chemicals Non-Hazardous
Technical name: Indium (III) fluoride, anhydrous

UPS Air

Proper shipping name: Chemicals Non-Hazardous
Technical name: Indium (III) fluoride, anhydrous

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: Not subject
California Proposition 65 components: Not subject
TSCA: Material 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.