



Safety Data Sheet

According to 29 CFR 1910.1200 (OSHA HCS)

SDS No. 37

Review date February 4, 2016

1 Identification of substance and company

Product details
Product name: **Aluminum fluoride, trihydrate**
Product code: 11720, 18629
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

Hazard designation: Irritant
GHS label elements



Signal word: Warning

Hazard statements:
H302 - Harmful if swallowed
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
P270 - Do not eat, drink or smoke when using this product

Response:
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
P304+340+312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+313 - If skin irritation occurs: Get medical advice/attention
P337+313 - If eye irritation persists: Get medical advice/attention
P363 - Wash contaminated clothing before reuse

Classification of the substance or mixture:
Acute toxicity, oral - 4
Skin irritation - 2
Eye irritation - 2A
Specific target organ toxicity - single exposure, respiratory system - 3

Hazards not otherwise classified or not covered by GHS: None

HMIS ratings (scale 0-4):
Health hazard 2
Flammability 0
Physical hazard 0

3 Composition/Information on ingredients

Chemical name: Aluminum fluoride, trihydrate
Designation: (CAS#): 15098-87-0
Formula: $AlF_3 \cdot 3H_2O$
Synonyms: Aluminum trifluoride
Identification number(s):
EC Number: 232-051-1

4 First aid measures

After inhalation: Seek immediate medical advice
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
After skin contact: Instantly wash with water and soap and rinse thoroughly
If irritation persists, consult a physician
After eye contact: Rinse opened eye for at least 15 minutes under running water. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.
After swallowing: If conscious, rinse mouth out with water and seek medical advice

5 Fire-fighting measures

Suitable extinguishing agents:	Non-flammable; Use extinguishing media most appropriate to surrounding fire conditions
Special hazards caused by the material, its products of combustion or resulting gases:	In case of fire, the following can be released: Hydrogen fluoride, oxides of aluminum
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. Keep unprotected persons away. Ensure adequate ventilation
Measures for environmental protection:	Do not allow material to be released to the environment without proper governmental permits
Measures for cleaning/collecting:	Dispose of contaminated material as waste according to item 13 Place in a suitable container for proper disposal Ventilate and wash spill site after material removal is complete
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:	Keep containers tightly sealed Store in cool, dry place in tightly closed containers Ensure good ventilation/exhaustion at the workplace
Information about protection against explosions and fires:	This product is not flammable
Storage requirements to be met by storerooms and containers:	No special requirements
Information about storage in one common storage facility:	Do not store together with strong acids
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 2.5 mg/m ³ OSHA PEL: TWA 2.5 mg/m ³
Additional information:	None
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 impregnated garments Wash hands during breaks and at the end of the work Use suitable respirator when high concentrations are present Use only NIOSH/MESA or CEN approved dust mask type N95 or TYPE P1 (EN 143)
Respiratory protection:	Impervious gloves
Hand protection:	Safety glasses
Eye protection:	Protective work clothing
Skin protection:	Sufficient to prevent contact
Additional protective equipment:	Emergency eyewash and safety shower

9 Physical and chemical properties

General Information:	
Physical state:	Crystalline powder
Color:	White
Smell:	Odorless
Molecular Weight (Calculated):	138.02
pH (5% solution)	Not determined
Melting point/range:	Not determined
Boiling point/range:	Not determined
Flash point:	Non-flammable
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard
Flammable limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure (mm Hg):	Not determined
Specific gravity at 20 °C	2.88
Solubility in/Miscibility with water at 20 °C	Slightly soluble

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:	Strong acids

See section 7 for any additional incompatibilities

Dangerous reactions:
Hazardous decomposition products:

No dangerous reactions known
Hydrogen fluoride, oxides of aluminum

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

oral-mouse LD₅₀: 103 mg/kg
eye-rabbit 500 mg/24H:SEVERE

Primary irritant effect:

on the skin:

May cause moderate irritation

on the eye:

May cause severe irritation

Sensitization:

No sensitizing effect known

Additional toxicological information:

Dust may cause irritation to the upper respiratory tract. Abrasion may cause eye and skin irritation. Inhalation may cause sneezing, coughing and nose irritation. Skin contact may be irritating, Eye contact produces mechanical irritation and pain, watering of the eyes and eyelid inflammation.

Carcinogenicity:

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

12 Ecological information

General notes:

No further relevant toxicity information available
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system
Do not allow material to be released to the environment without proper governmental permits

13 Disposal considerations

Product recommendation:

Consult state, local or national regulation for proper disposal
Allow professional disposal company to handle waste

Unclean packaging recommendation:

Disposal must be made according to official regulations

Recommended cleaning agent:

Water, if necessary with cleaning agent

14 Transport information

Land transport DOT

Proper shipping name:

Chemicals Non-Hazardous

Technical name:

Aluminum fluoride, trihydrate

Air transport ICAO-TI and IATA-DGR:

Proper shipping name:

Chemicals Non-Hazardous

Technical name:

Aluminum fluoride, trihydrate

UPS Ground / FedEx Ground

Proper shipping name:

Chemicals Non-Hazardous

Technical name:

Aluminum fluoride, trihydrate

UPS Air

Proper shipping name:

Chemicals Non-Hazardous

Technical name:

Aluminum fluoride, trihydrate

15 Regulatory information

SARA Section 302 Extremely Hazardous components and corresponding TPQs:

Not subject

SARA Section 311 / 312 hazards:

Not subject

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.