

ALADDIN SCIENTIFIC CORPORATION  
14078 Meridian Parkway, Riverside, CA. 92518

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-20  
Print Date: 2024-01-26

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : N-Fluoro-N'-(chloromethyl)triethylenediamine Bis(tetrafluoroborate)  
Product Number : S101457  
Brand : aladdin  
CAS-No. : 140681-55-6

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302 Harmful if swallowed  
H317 May cause an allergic skin reaction  
H318 Causes serious eye damage  
H412 Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash hands [and ...] thoroughly after handling.

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P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P330	Rinse mouth.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: F-TEDA-BF4;SELECTFLUOR Fluorinating Reagent;1-Chloromethyl-4-fluoro-1,4-diazoniabicyclo[2.2.2]octane bis(tetrafluoroborate);N-Chloromethyl-N'-fluorotriethylenediammonium bis(tetrafluoroborate)
Formula	: C7H14B2ClF9N2
Molecular weight	: 354.26
CAS No.	: 140681-55-6
EC-NO.	: no data available

Component	Classification	Concentration
N-Fluoro-N'-(chloromethyl)triethylenediamine Bis(tetrafluoroborate)	no data available	95%

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

Move out of dangerous area.Consult a physician.Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air.If not breathing, give artificial respiration.Consult a physician.

In case of skin contact

Wash off with soap and plenty of water.Consult a physician.

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In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **4.2 Most important symptoms and effects, both acute and delayed**

no data available

#### **4.3 Indication of any immediate medical attention and special treatment needed**

no data available

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### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

no data available

#### **5.2 Special hazards arising from the substance or mixture**

Hazardous decomposition products formed under fire conditions.- Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen fluoride, Borane/boron oxides

#### **5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

#### **5.4 Further information**

Use water spray to cool unopened containers.

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### **SECTION 6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### **6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

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## 6.4 Reference to other sections

no data available

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## SECTION 7: Handling and storage

### 7.1 Precautions 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. Keep away from sources of ignition - No smoking.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C Keep in a dry place.

### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

no data available

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	260 °C (500 °F) - lit.
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

### 9.2 Other safety information

no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Avoid moisture.

### 10.5 Incompatible materials

Strong oxidizing agents

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## 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.- Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen fluoride, Borane/boron oxides

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

May be harmful if inhaled. Causes respiratory tract irritation.

Additional Information

no data available

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 100.0 mg/l - 24.0 h Toxicity to daphnia and other aquatic invertebrates EC50 - *Daphnia magna* (Water flea) - 25 mg/l - 48 h

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

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## 12.4 Mobility in soil

no data available

## 12.5 Results of PBT and vPvB assessment

Harmful to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## 12.6 Other adverse effects

no data available

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## SECTION 13:

### 13.1 Disposal considerations

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

DOT (US)

UN number: 3088

Packing group: II

Class: 4.2

Proper shipping name: no data available

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

Environmental Hazards: no data available

IMDG

UN number: 3088

Packing group: II

EMS-No: no data available

Proper shipping name: no data available

IATA

UN number: 3088

Packing group: II

Class: 4.2

Proper shipping name: no data available

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## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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## SECTION 16: Other information

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<b>Creation Date</b>	10-Sep-2020
<b>Revision Date</b>	20-Jan-2024
<b>Print Date</b>	26-Jan-2024
<b>Revision Summary</b>	SDS sections updated v1

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