

SAFETY DATA SHEET

Version: v1
Revision Date: 2026-03-17
Print Date: 2026-03-17

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

1.1 Product identifiers

Product name : Lithium Tetrafluoroborate
Product Number : L107398
Brand : aladdin
CAS-No. : 14283-07-9

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)

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 4

Acute dermal toxicity Category 4

Acute Inhalation Toxicity - Dusts and Mists Category 4

Skin Corrosion/Irritation Category 1B

Serious Eye Damage/Eye Irritation Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram



Danger

Signal word

Hazard statement(s)

H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P301+P317	IF SWALLOWED: Get medical help.
P305+P354+P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P317	Get emergency medical help.

P337+P317	If eye irritation persists: Get medical help.
P332+P317	If skin irritation occurs: Get medical help.
P302+P361+P354	IF ON SKIN: Take off Immediately all contaminated clothing. Immediately rinse with water for several minutes.
P316	Get emergency medical help immediately.

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

None identified

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: no data available
Formula	: BF ₄ Li
Molecular weight	: 93.75
CAS No.	: 14283-07-9
EC-NO.	: 238-178-9

Component	Classification	Concentration
Lithium Tetrafluoroborate		
	no data available	≥99.9% metals basis

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

In case of eye contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed

Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

wear self-contained breathing and full protective gear.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

6.2 Environmental precautions

See Section 12 for additional Ecological Information.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment. Avoid dust formation.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation. Keep under nitrogen.

7.2 Conditions for safe storage, including any incompatibilities

Argon filled storage

7.3 Specific end use(s)

no data available

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 EN166(EU).

Skin 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. 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 fullface 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

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: Solid color: Off-white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	293-300 °C (dec.) (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	0.852
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

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

Incompatible products. Exposure to moist air or water.

10.5 Incompatible materials

Acids, Strong oxidizing agents

10.6 Hazardous decomposition products

Gaseous hydrogen fluoride (HF)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - Female -500 mg/kg

(OECD Testing Guideline 423)

Note: No data available

Inhalation: No data available

LD50 transdermal rat female ->2000 mg/kg

(OECD Testing Guideline 402)

Skin corrosion/irritation

Causing skin burns.

Serious eye damage/eye irritation

Causing serious eye damage.

Respiratory or skin sensitisation

Direct Peptide Reaction Test (DPRA) - Skin Protein Result: Negative (OECD Testing Guideline 442C)

Germ cell mutagenicity

Suspected of causing genetic defects. Test type: Micronucleus test Testing System: Human Lymphocytes Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guidelines 487 Result: Suspicious signs Test type: Ames test Testing System: Salmonella Typhimurium Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guideline 471 Result: Suspicious signs

Carcinogenicity

no data available

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

no data available

Additional Information

Repeated toxicity - rats - male and female - forced feeding method - level at which no harmful effects were observed -50 mg/kg

Fluoride ions can reduce serum calcium ion concentration, which may lead to fatal hypocalcemia. High concentrations of lithium ions can cause dizziness and collapse, and if sodium intake is limited, it can cause kidney damage. Dehydration, weight loss, skin effects, and thyroid dysfunction have all been reported. Possible central nervous system effects include aphasia, blurred vision, sensory loss, seizures, etc. Repeated exposure to lithium ions can cause diarrhea, vomiting, and neuromuscular effects such as tremors, cramps, and hyperreflexia., Salivation, nausea, vomiting, fever, this substance causes significant damage to mucosal tissue, upper respiratory tract, eyes, and skin., To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

SECTION 12: Ecological information

12.1 Toxicity

Semi static toxicity test on fish LC50- Danio rerio (zebrafish) -> 100 mg/l -96 h

(OECD Testing Guidelines 203)

Static toxicity test on water fleas and other aquatic invertebrates EC50- Daphnia magna - approximately 35.53 mg/l -48 hours

(OECD Testing Guidelines 202)

For water fleas and other aquatic species without ridges

Static toxicity test of vertebral animals ErC50- Pseudokirchneriella subcapitata - approximately 48.32 mg/l -72 hours

(OECD Testing Guidelines 201)

Static Test NOEC - Pseudokirchneriella Subcapita - Approximately 10 mg/l -72 hours

(OECD Testing Guidelines 201)

Static toxicity test for bacteria EC50- Activated sludge -> 1000 mg/l -3 h

(OECD Testing Guideline 209)

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: UN3260	Packing group: II	Class: 8
Proper shipping name: Inorganic acidic corrosive solid, unspecified (lithium tetrafluoroborate)	Reportable Quantity(RQ):no data available	Poison Inhalation Hazard:no data available
Environmental Hazards: no		

IMDG

UN number: UN3260	Packing group: II	EMS-No:no data available
Proper shipping name: Inorganic acidic corrosive solid, unspecified (lithium tetrafluoroborate)		

IATA

UN number: UN3260	Packing group: II	Class: 8
Proper shipping name: Inorganic acidic corrosive solid, unspecified (lithium tetrafluoroborate)		

SECTION 15: Regulatory information

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council on December 4, 2013).

SECTION 16: Other information

Prepared By

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

Creation Date

02-Aug-2024

Revision Date

17-Mar-2026

Print Date

17-Mar-2026

Revision Summary

SDS sections updated v1

Disclaimer

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.