

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

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-10
Print Date: 2024-01-11

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

1.1 Product identifiers

Product name : Lithium fluoride
Product Number : L104224
Brand : aladdin
CAS-No. : 7789-24-4

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)
Acute toxicity, Oral (Category 3), H301

Serious eye damage/eye irritation (Category 2A), H319

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H301

Toxic if swallowed

H319

Causes serious eye irritation

Precautionary statement(s)

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P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P301+P310+P330	IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER/doctor/.

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

Contact with acids liberates very toxic gas

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: fluorolithium lithium fluoride
Formula	: LiF
Molecular weight	: 25.94
CAS No.	: 7789-24-4
EC-NO.	: 232-152-0

Component	Classification	Concentration
Lithium fluoride	no data available	Analytical Reagent,99%

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 to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial respiration.

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

In the case of contact with eyes, Rinse Immediately with plenty of water and seek medical advice.

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

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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 spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Hydrogen fluoride Lithium oxide Flammable A mixture with combustible components. When a fire occurs, it may cause the generation of hazardous gases or vapors

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

Should not be released into the environment. 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 get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

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7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed. Sensitivity to humidity

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 | no data available |
| b) Odour | no data available |

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c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	848°C
f) Initial boiling point and boiling range	1680°C
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	2.64
n) Water solubility	Soluble in water and in acids. Soluble in hydrofluoric acid. Insoluble in alcohol.
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

2 Possibility of hazardous reactions Violent reactions possible with: halogen-halogen compounds Generates dangerous gases or fumes in contact with: acids Generates dangerous gases or fumes in contact with: Acids

10.4 Conditions to avoid

Exposure to moist air or water.

10.5 Incompatible materials

glass

10.6 Hazardous decomposition products

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In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 608 mg/kg (OECD Test Guideline 401)

LD50 Inhalation - Rat - 4 h - > 15.57 mg/l - dust/mist (OECD Test Guideline 403)

LD50 Dermal - Rat - > 2,000 mg/kg (OECD Test Guideline 402)

Remarks: The value is given in analogy to the following substances: Lithium bromide

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE) Result: No skin irritation (OECD Test Guideline 439) Skin - in vitro membrane barrier Result: Not corrosive (OECD Test Guideline 435)

Serious eye damage/eye irritation

Remarks: May irritate eyes.

Respiratory or skin sensitisation

in vivo assay - Guinea pig Result: Not sensitising (US-EPA)

Germ cell mutagenicity

No data available Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Ames test Test system: Escherichia coli Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Remarks: (in analogy to similar products) Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Remarks: (in analogy to similar products)

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Respiratory system

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

SECTION 12: Ecological information

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

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12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia - 152.37 mg/l - 48 h Remarks: (calculated)

Toxicity to algae static test NOEC - Desmodesmus subspicatus (green algae) - 25 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Lithium chloride static test ErC50 - Desmodesmus subspicatus (green algae) - > 400 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Lithium chloride

Toxicity to daphnia and other aquatic NOEC - Daphnia - 14.1 mg/l - 21 d

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: 3288

Proper shipping name: Toxic solid,
inorganic, n.o.s. (Lithium fluoride)

Environmental Hazards: no

IMDG

Packing group: III

Reportable Quantity(RQ): no data
available

Class: 6.1

Poison Inhalation Hazard: no data
available

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UN number: 3288

Packing group: III

EMS-No: no data available

Proper shipping name: Toxic solid, inorganic, n.o.s. (Lithium fluoride)

IATA

UN number: 3288

Packing group: III

Class: 6.1

Proper shipping name: Toxic solid, inorganic, n.o.s. (Lithium fluoride)

SECTION 15: Regulatory information

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

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Revision Summary

SDS sections updated v1

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