



SAFETY DATA SHEET

Version 8.1

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SDS No. Eternal-Element-ET-LuF-202501

Product Number Eternal-Element-ET-LuF-202501

Lutetium (III) fluoride

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

1.1 Product identifiers

Product name : Lutetium (III) fluoride
Product Number : ET-LuF-202501
Brand : Eternal-Element
CAS-No. : 13760-81-1

1.2 Details of the supplier of the safety data sheet

Company : Shanghai Sheeny Metal Mateirals Co.,Ltd.
Room 210, Kedi Building,
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SHANGHAI
201800 SHANGHAI CHINA

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1.3 Emergency telephone

Emergency Phone # : +86 4006632276

SECTION 2. Overview of Hazards

2.1 GHS Hazard Categories

Acute Toxicity - Oral (Category 4), H302

Skin Corrosion/Irritation (Category 2), H315

Serious Eye Damage/Eye Irritation (Category 1), H318

Specific Target Organ Toxicity - Single Exposure, Respiratory Irritation (Category 3), H335

2.2 GHS Label Elements, including Precautionary Statements



Pictogram

Warning word : Danger

Risk description :

H302: Harmful by ingestion

H315: Causes skin irritation

H318: Causes severe eye damage

H335: May cause respiratory irritation

Precautionary statement preventive measure :

P261: Avoid inhalation of dust/ventilation/gasoline/mist/vapor/spray.

P280: Wear protective gloves/protective clothing/protective eyewear/protective face mask.

P304 + P340: If inhaled: Move the patient to an area with fresh air, rest in a comfortable breathing position.

P305 + P351 + P338: If in eyes: Gently rinse with water for several minutes. If wearing contact lenses and they can be removed easily, remove the contact lenses. Continue rinsing.

P405: The storage place must be locked.

P501: Dispose of the contents/cargo container in accordance with local regulations.

2.3 Other hazards

None

SECTION 3. Composition/Ingredients Information

3.1 Substance

Molecular formula: F₃Lu

Molecular weight: 231.96

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SECTION 4. Emergency Measures

4.1 Description of Necessary Emergency Measures

Eye Contact :

Remove any contact lenses, find a sink and immediately rinse the eyes with plenty of water.

Gently separate the eyelids and rinse thoroughly. Seek medical attention promptly.

Skin Contact :

Rinse the skin thoroughly with a large amount of water. Remove contaminated clothing and shoes, and seek medical attention promptly.

Inhalation :

If inhaled, move the patient to a fresh air area. If breathing difficulties occur, perform cardiopulmonary resuscitation (CPR). Seek medical attention promptly.

Ingestion :

Rinse the mouth promptly. Do not induce vomiting. Seek medical attention promptly.

4.2 The most important symptoms and health impacts

The most known symptoms and their effects are detailed on the label (refer to Chapter 2.2)

4.3 Instructions for timely medical treatment and required special handling

Symptomatic treatment.

SECTION 5. Firefighting measures

5.1 Fire extinguishing media

Fire extinguishing methods and fire extinguishing agents

Use water mist, alcohol-resistant foam, dry powder or carbon dioxide for extinguishing.

5.2 Special hazards arising from the substance or mixture

During combustion, irritating smoke may be emitted.

5.3 Recommendations for firefighters

If necessary, wear self-contained breathing apparatus for firefighting operations.

SECTION 6. Emergency leakage measures

6.1 Personal protective measures, protective equipment and emergency response procedures

Wear complete personal protective equipment. Avoid inhaling vapors, aerosols or gases.

Ensure adequate ventilation. Evacuate personnel to a safe area.

For personal protection, please refer to Section 8.

6.2 Environmental protection measures

If safety can be ensured, measures can be taken to prevent further leakage or spillage. Do not allow the product to enter sewers or drainage ditches. Avoid discharging into the surrounding environment.

6.3 Methods for containing, removing and the disposal materials of leaked chemicals

Use fine powder liquid combined with materials (silt, general adhesive) to absorb the solution; wipe with alcohol to remove contamination on surfaces and equipment. Place in a suitable sealed container for disposal.

Disposal instructions for discarding can be found in Section 13.

6.4 Refer to Other Sections

Disposal instructions for discarding can be found in Section 13.

SECTION 7. Operating procedures, storage and handling

7.1 Precautions for safe operation

Avoid inhalation, contact with eyes and skin. Avoid formation of dust and aerosols. Use only in areas with appropriate exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, ventilated place, away from fire sources and avoid direct sunlight.

At room temperature, keep dry and cool.

Transportation period less than two weeks can be transported at room temperature.

7.3 Specific final uses

No data available

SECTION 8. Exposure Control and Personal Protection

8.1 Occupational Exposure Limits

Hazard composition and occupational exposure limits

No substances with occupational exposure restrictions.

8.2 Exposure Control

Appropriate technical controls:

Ensure good ventilation. Operate in accordance with good industrial hygiene and safety standards. Provide accessible safety showers and eyewash stations.

Personal protective equipment:

Eye protection: Safety goggles with side shields.

Hand protection: Protective gloves.

Body and skin protection: Permeation-resistant clothing.

Respiratory protection: Compliant respirators.

Environmental Exposure Control : If safety can be ensured, measures can be taken to prevent further leaks or spills. Do not allow the product to enter sewers, waterways or soil.

SECTION 9: Physical and chemical properties

9.1 Basic physical and chemical properties

Appearance and characteristics	Solid (lumps, granules and flocculent material)
Smell	No data available
Threshold odour number	No data available
PH value	No data available
Melting/cooling point	No data available
Initial boiling point and boiling range	No data available
Flashing point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
High/low flammability or explosiveness limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water-solubility	No data available
Positive octanol/water partition coefficient	No data available
Autogenous ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidability	No data available

9.2 Other safety information

No data available

SECTION 10. Stability and Reactivity

10.1 Reactivity

No data available

10.2 Stability

Stable under the recommended storage conditions

10.3 Hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible substances

Strong acids/alkalis, strong oxidants/reductants

10.6 Dangerous decomposition products

In the event of fire, it will decompose and generate harmful substances.

Other decomposition products - no data available.

SECTION 11. Toxicological information**11.1 Information on toxicological effects**

Acute Toxicity :

Classified based on available data. For more information, please refer to Section 2

Skin Corrosion/ Irritation :

Classified based on available data. For more information, please refer to Section 2

Severe Eye Damage/Eye Irritation :

Classified based on available data. For more information, please refer to Section 2

Respiratory or Skin Allergies :

Classified based on available data. For more information, please refer to Section 2

Reproductive Cell Mutagenicity :

Classify based on the available data. For more information, please refer to Section 2.

Carcinogenicity :

IARC: IARC has not identified any component in this product with a content of 0.1% or above as a possible or confirmed human carcinogen.

ACGIH: ACGIH has not identified any component in this product with a content of 0.1% or above as a possible or confirmed human carcinogen.

NTP: NTP has not identified any component in this product with a content of 0.1% or above as a possible or confirmed human carcinogen.

OSHA: OSHA has not identified any component in this product with a content of 0.1% or above as a possible or confirmed human carcinogen.

Reproductive toxicity :

Classify based on the available data. For more information, please refer to Section 2.

Specific target organ system toxicity (single exposure) :

Classify based on the available data. For more information, please refer to Section 2.

Specific target organ system toxicity (repeated exposure) :

Classify based on the available data. For more information, please refer to Section 2.

Inhalation hazards :

Classify based on the available data. For more information, please refer to Section 2.

Additional Information :

These information are based on what we currently know. However, the chemical, physical and toxicological properties of this substance have not been fully investigated yet.

SECTION 12. Ecological information

12.1 Ecotoxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Biogeochemical Accumulation Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Results Evaluation of PBT and vPvB

Since the chemical safety assessment was not required/undertaken, the PBT/vPvB assessment is not available.

12.6 Other Adverse Reactions

No data available.

SECTION 13. Disposal

13.1 Methods for Disposal of Waste Product

Product :

Hand over the remaining and non-recyclable solutions to licensed companies for processing.

Mix with flammable solvents or combine them, and burn them in a chemical incinerator equipped with post-burning and washing functions after combustion.

Polluted packaging materials :

Recycle or dispose of them in accordance with current national, federal, state and local regulations.

SECTION 14. Transportation Information

Land transportation hazard class

UN number: -

Hazardous transportation category: -

Package group: -

International Maritime Dangerous Goods Code

UN Number: -

Transport Hazard Category: -

Package Group: -

International Air Transport Dangerous Goods Regulations

UN Number: -

Transport Hazard Category: -

Package Group: -

SECTION 15. Regulatory Information

Please note that waste disposal should also comply with local regulations.

SECTION 16: Other information

Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Eternal-Element Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www. eternal-element.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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