



SAFETY DATA SHEET

Version 8.1

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

Product Number Eternal-Element-ET-GdF-202501

Gadolinium (III) fluoride

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

1.1 Product identifiers

Product name : Gadolinium (III) fluoride
Product Number : ET-GdF-202501
Brand : Eternal-Element
CAS-No. : 13765-26-9

1.2 Details of the supplier of the safety data sheet

Company : Shanghai Sheeny Metal Mateirals Co.,Ltd.
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1.3 Emergency telephone

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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 2A), H319

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

2.2 GHS Label Elements, including Precautionary Statements

Pictogram



Warning word : Warning

Risk description :

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary statement preventive measure :

P261 Avoid breathing in dust/fumes/vapors/spray.

P264 Wash 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.

Accident Response :

P302+P352 If on skin: Wash with plenty of soap and water.

P304+P340 If inhaled: Remove to fresh air and keep at rest in a comfortable position.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if easily removable without additional risk. Continue rinsing.

P330 Rinse mouth.

P362+P364 Remove contaminated clothing and wash before reuse.

Storage :

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store in a locked container.

Disposal :

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

2.3 Other hazards

None

SECTION 3. Composition/Ingredients Information

3.1 Substance

Molecular formula: F₃Gd

Molecular weight: 214.25

CAS No. : 13765-26-9

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 1231°C

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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