

SAFETY DATA SHEET

Date Printed: 04/17/2024 Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifier: (2N) 99% Europium(II) Fluoride

Product Code: EU2-F-02

CAS Number: 14077-39-5

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements 10884 Weyburn Ave. Los Angeles, CA 90024 Tel: +1 310-208-0551 Fax: +1 310-208-0351 Emergency telephone number: +1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classification This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) Label Elements Signal Word: Warning Hazard Statements Harmful if swallowed Harmful in contact with skin Causes skin irritation Causes serious eye irritation Harmful if inhaled May cause respiratory irritation



Precautionary Statements Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Wear protective gloves/protective clothing/eye protection/face protection Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell Skin IF ON SKIN: Wash with plenty of soap and water Call a POISON CENTER or doctor/physician if you feel unwell If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse Eyes IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention Indestion IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Storage Store in a well-ventilated place. Keep container tightly closed Store locked up Disposal Dispose of contents/container to an approved waste disposal plant Hazards not otherwise classified (HNOC) None identified

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: Europium fluoride (EuF2) CAS-No: 14077-39-5 Weight %: <=100

SECTION 4. FIRST AID MEASURES

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

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

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects

None reasonably foreseeable.

Notes to Physician Treat symptomatically

SECTION 5. FIREFIGHTING MEASURES

Unsuitable Extinguishing Media No information available Flash Point No information available Method - No information available Autoignition Temperature No information available **Explosion Limits** Upper No data available Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available Specific Hazards Arising from the Chemical Keep product and empty container away from heat and sources of ignition. Hazardous Combustion Products Hydrogen fluoride Europium oxide Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. NFPA Health: 2 Flammability: 0 Instability: 0 Physical hazards: -

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional ecological

information. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Storage Protect from moisture.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin and body protection Long sleeved clothing.

Respiratory Protection No protective equipment is needed under normal use conditions. Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid Appearance Yellow Odor Odorless Odor Threshold No information available pH No information available Melting Point/Range 1380 °C / 2516 °F Boiling Point/Range > 2400 °C / 4352 °F Flash Point No information available **Evaporation Rate Not applicable** Flammability (solid,gas) No information available Flammability or explosive limits Upper No data available Lower No data available Vapor Pressure No information available Vapor Density Not applicable Specific Gravity 6.495 g/cm3 Solubility No information available Partition coefficient: n-octanol/water No data available Autoignition Temperature No information available Decomposition Temperature No information available Viscosity Not applicable Molecular Formula EuF2 Molecular Weight 189.96

SECTION 10. STABILITY AND REACTIVITY

Reactive Hazard None known, based on information available Stability Moisture sensitive. Conditions to Avoid Incompatible products. Incompatible Materials Strong oxidizing agents Hazardous Decomposition ProductsHydrogen fluoride, Europium oxide Hazardous Polymerization Hazardous polymerization does not occur. Hazardous Reactions None under normal processing.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity Product Information Component Information Toxicologically Synergistic Products No information available Delayed and immediate effects as well as chronic effects from short and long-term exposure Irritation No information available Sensitization No information available Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. Mutagenic Effects No information available Reproductive Effects No information available. Developmental Effects No information available. Teratogenicity No information available. STOT - single exposure Respiratory system STOT - repeated exposure None known Aspiration hazard No information available Symptoms / effects,both acute and delayed No information available Endocrine Disruptor Information No information available Other Adverse Effects The toxicological properties have not been fully investigated.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Persistence and Degradability Insoluble in water May persist

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods 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.

SECTION 14. TRANSPORT INFORMATION

DOT **UN-No UN3288** Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S. Proper technical name (Europium(II) fluoride, anhydrous) Hazard Class 6.1 Packing Group III TDG **UN-No UN3288** Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S. Hazard Class 6.1 Packing Group III IATA **UN-No UN3288** Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S. Hazard Class 6.1 Packing Group III IMDG/IMO **UN-No UN3288** Proper Shipping Name TOXIC SOLID, INORGANIC, N.O.S. Hazard Class 6.1 Packing Group III

SECTION 15. REGULATORY INFORMATION

U.S. Federal Regulations TSCA 12(b) Not applicable SARA 313 Not applicable SARA 311/312 Hazard Categories See section 2 for more information CWA (Clean Water Act) Not applicable Clean Air Act Not applicable **OSHA** Occupational Safety and Health Administration Not applicable **CERCLA Not applicable** California Proposition 65 This product does not contain any Proposition 65 chemicals U.S. Department of Transportation Reportable Quantity (RQ): N **DOT Marine Pollutant N** DOT Severe Marine Pollutant N U.S. Department of Homeland Security This product does not contain any DHS chemicals. Other International Regulations Mexico - Grade No information available

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.