

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: (4N) 99.99% Lithium Hexafluoroaluminate Sputtering Target

Product Code: LI-FALO-04-ST

CAS Number: 13821-20-0

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 of the substance or mixture Acute toxicity - Inhalation, Category 4 Reproductive toxicity, Additional category for effects on or via lactation Specific target organ toxicity – repeated exposure, Category 1 Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 2 GHS label elements, including precautionary statements



Signal word Danger Hazard statement(s) H332 Harmful if inhaled H362 May cause harm to breast-fed children H372 Causes damage to organs through prolonged or repeated exposure H411 Toxic to aquatic life with long lasting effects Precautionary statement(s) Prevention P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area.

P201 Obtain special instructions before use. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P263 Avoid contact during pregnancy and while nursing. P264 Wash ... thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. Response P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor/...if you feel unwell. P308+P313 IF exposed or concerned: Get medical advice/ attention. P314 Get medical advice/attention if you feel unwell. P391 Collect spillage. Storage none Disposal P501 Dispose of contents/container to ... Other hazards which do not result in classification none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances Chemical name-trilithium hexafluoroaluminate Common names and synonyms-trilithium hexafluoroaluminate CAS number-13821-20-0 EC number- none Concentration- 100%

SECTION 4. FIRST AID MEASURES

Description of necessary first-aid measures General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Wash off with soap and plenty of water. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician Most important symptoms/effects, acute and delayed no data available Indication of immediate medical attention and special treatment needed, if necessary no data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Specific hazards arising from the chemical no data available Special protective actions for fire-fighters Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters Occupational Exposure limit values no data available **Biological limit values** no data available Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Individual protection measures, such as personal protective equipment (PPE) Eve/face protection Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state white powder Colour no data available Odour no data available Melting point/ freezing point 790 °C Boiling point or initial boiling point and boiling range no data available Flammability no data available Lower and upper explosion limit / flammability limit no data available Flash point no data available Auto-ignition temperature no data available Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility no data available Partition coefficient n-octanol/water (log value) no data available Vapour pressure no data available Density and/or relative density no data available Relative vapour density no data available Particle characteristics no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity no data available Chemical stability Stable under recommended storage conditions. Possibility of hazardous reactions no data available Conditions to avoid no data available Incompatible materials no data available Hazardous decomposition products no data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity Oral: no data available Inhalation: no data available Dermal: no data available Skin corrosion/irritation no data available Serious eye damage/irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available STOT-single exposure no data available STOT-repeated exposure no data available Aspiration hazard no data available

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: no data available Persistence and degradability no data available Bioaccumulative potential no data available Mobility in soil no data available Other adverse effects no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14. TRANSPORT INFORMATION

UN Number ADR/RID: no data available IMDG: no data available IATA: no data available UN Proper Shipping Name ADR/RID: no data available IMDG: no data available IATA: no data available Transport hazard class(es) ADR/RID: no data available IMDG: no data available IATA: no data available Packing group, if applicable ADR/RID: no data available IMDG: no data available IATA: no data available Environmental hazards ADR/RID: yes IMDG: yes IATA: yes Special precautions for user no data available Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code no data available

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question Chemical name Common names and synonyms CAS number EC number trilithium hexafluoroaluminate trilithium hexafluoroaluminate 13821-20-0 none European Inventory of Existing Commercial Chemical Substances (EINECS) Listed. EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory Listed. China Catalog of Hazardous chemicals 2015 Not Listed. New Zealand Inventory of Chemicals (NZIoC) Listed.

Philippines Inventory of Chemicals and Chemical Substances (PICCS) Not Listed.

Vietnam National Chemical Inventory Not Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) Not Listed.

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.