

SAFETY DATA SHEET

Date Printed: 09/21/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifier: (5N) 99.999% Sodium Fluoride Sputtering Target

Product Code: NA-F-05-ST

CAS Number: 7681-49-4

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

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Class 6.1 Poison. Poisonous by ingestion. Dust extremely irritating to eyes. Ingestion causes nausea, vomiting, stomach pains and diarrhoea. Particular care must be exercised when machining and creating dust or particles. Lethal dose about 4g.

2.2. LABEL ELEMENTS



Signal Word: Warning

H301 Toxic if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

Precautionary Statements:

P262 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when handling this product

P301+P310 IF SWALLOWED: Immediately call a poison centre or doctor. Rinse mouth.

P302 +P352 IF ON SKIN: Wash with plenty of soap and water

P303+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. OTHER HAZARDS

None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Component Name CAS number % EC number (EINECS) EU index UN number

Sodium Fluoride 7681-49-4 100% 231-667-8 009-004-00-7 1690

SECTION 4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

GENERAL: Consult a doctor for specific advice.

EYES: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.

SKIN: Wash thoroughly with soap and water. Dry area with clean towel. Remove contaminated clothing and wash clothing before re-use.

INHALATION: Remove to fresh air. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may administer oxygen. Keep affected person warm and at rest. Obtain medical attention.

INGESTION: Induce vomiting if conscious and as directed by properly qualified personnel. Wash out mouth thoroughly with water. Do not give carbonated drinks. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to Section 2.2 and to section 11.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No Data.

SECTION 5. FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

This product does not burn.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Material may evolve toxic fumes in a fire.

5.3. ADVICE FOR FIREFIGHTERS

None.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective clothing & equipment as listed under Section 8. Avoid making dust.

6.2. ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage. Do not let product enter drains. Do not discharge to the environment.

6.3. METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Take up and containerize for proper disposal. Containerize any cleaning materials used for proper disposal.

6.4. REFERENCE TO OTHER SECTIONS

Dispose as in Section 13.

SECTION 7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

Keep away from heat. Avoid contact with skin and eyes. Protect against physical damage. Avoid generating dust.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep away from foodstuffs. Keep away from acids and strong bases.

7.3. SPECIFIC END USES

Optical Material for Manufacture of Optical Components.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL) = 2.5 mg/m³ as Fluoride in 8 hour Time Weighted Average (TWA)

8.2. EXPOSURE CONTROLS

Protective gloves made of PVA are required. Use of a laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possibility of chipping or dust creation. Respirators must be worn when the threshold limit is exceeded. Provide adequate general mechanical ventilation, and local exhaust ventilation. Wash hands immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear glassy geometric shapes, no odour. FLASH POINT: Not Applicable

BOILING POINT (760mm Hg) 1700°C FLAMMABILITY: Not Applicable

MELTING POINT: 993°C EXPLOSIVE PROPERTIES: Not Applicable

SPECIFIC GRAVITY: 2.85 g/mL Vapor PRESSURE: Not Applicable

SOLUBILITY IN WATER: Slightly; 4.22g/100ml H₂O at 18°C pH IN AQUEOUS SOLUTION: No data available

9.2. OTHER SAFETY INFORMATION

None

SECTION 10. STABILITY AND REACTIVITY

10.1. REACTIVITY

Reacts with strong mineral acids and strong oxidising materials

10.2. CHEMICAL STABILITY

Stable under normal conditions of storage and use

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

None known

10.4. CONDITIONS TO AVOID

Reacts with oxidising agents. Avoid strong acids, particularly hot conc. Sulphuric Acid

10.5. INCOMPATIBLE MATERIALS

Strong Mineral Acids. Strong oxidising materials

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Decomposition product is Hydrogen Fluoride gas in contact with mineral acid.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Harmful in contact with skin. Particular care must be exercised when machining and creating dust or particles.

TOXIC DOSE - LD50 > 52 mg/kg (oral, rat)

CARCINOGENICITY: Some evidence of carcinogenic properties in animals.

MUTAGENICITY/TERATOGENICITY: Evidence of reproductive effects.

SECTION 12. ECOLOGICAL INFORMATION

12.1. TOXICITY

Hazard to drinking water.

12.2. PERSISTENCE AND DEGRADABILITY

No Data

12.3. BIOACCUMULATIVE POTENTIAL

No Data

12.4. MOBILITY IN SOIL

No Data

12.5. RESULTS OF PBT AND vPvB ASSESSMENT

Not required or conducted

12.6. OTHER ADVERSE AFFECTS

The following applies to inorganic fluorides in general: biological effects: fish: *L. idus* LC50 660mg/l; bacteria: *Ps. putida* toxic from 231 mg/l up; algae: *Sc. quadricauda* toxic from 249mg/l up; protozoa: *E. sulcatum* toxic from 101mg/l up; *U. parduczi* toxic from 71mg/l up (all values as NaF).

SECTION 13. DISPOSAL CONSIDERATIONS

Chemical residues are generally classified as special waste, and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

SECTION 14. TRANSPORT INFORMATION

14.1. UN NUMBER: 1690

14.2. UN PROPER SHIPPING NAME:

Sodium Fluoride Solid.

14.3. TRANSPORT HAZARD CLASS: 6.1

14.4. PACKING GROUP: III

14.5. ENVIRONMENTAL HAZARDS: No Data

14.6. SPECIAL PRECAUTIONS FOR USER: None

14.7. TRANSPORT IN BULK MARPOL / IBC: No Data

SECTION 15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

None

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.