SAFETY DATA SHEET

Date Accessed: 03/28/2024
Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Name: Fluorine Doped Tin Oxide (FTO) Sputtering Target

Product Number: All applicable American Elements product codes, e.g. SNO-FD-02-ST , SNO-FD-03-ST , SNO-FD-04-ST , SNO-FD-05-ST

CAS #:

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
Not a hazardous substance or mixture.
GHS Label elements, including precautionary statements
Not a hazardous substance or mixture.
Hazards not otherwise classified (HNOC) or not covered by GHS-none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures
Synonyms: FTO glass, TEC 7
Hazardous components
Tin(IV) oxide CAS-No.18282-10-5
EC-No. 242-159-0
Concentration: >=90-<=100%

SECTION 4. FIRST AID MEASURES

Description of first aid measures
General advice
Move out of dangerous area.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact
Wash off with soap and plenty of water.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
No data available
Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
Further information
No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing Vapors, mist or gas.
For personal protection see section 8.
Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.
For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.
Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls
Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
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.
Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure
Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance
Form: Glass
Odor
No data available
Odor Threshold
No data available
pH
No data available
Melting point/freezing
point
No data available
Initial boiling point and
boiling range
No data available
Flash point
No data available
Evaporation rate
No data available
Flammability (solid, gas)

No data available
Upper/lower flammability or explosive limits
No data available
Vapor pressure
No data available
Vapor density
No data available
Relative density
No data available
Water solubility
No data available
Partition coefficient: n-octanol/water
No data available
Auto-ignition temperature
No data available
Decomposition temperature
No data available
Viscosity
No data available
Explosive properties
No data available
Oxidizing properties
No data available
Other safety information
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
Hazardous decomposition products formed under fire conditions.-Tin/tin oxides
Other decomposition products-No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
Skin corrosion/irritation
Serious eye damage/eye irritation
Respiratory or skin sensitisation
Germ cell mutagenicity
Carcinogenicity

IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity
Specific target organ toxicity -single exposure
Specific target organ toxicity -repeated exposure
Aspiration hazard
Additional Information
RTECS: Not available
Stomach-Irregularities-Based on Human Evidence
Stomach-Irregularities-Based on Human Evidence
Stomach-Irregularities-Based on Human Evidence (Tin difluoride)

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Persistence and degradability
Bioaccumulative potential
Mobility in soil
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

SARA 302
Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313
Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312
Hazards
Chronic Health Hazard
Massachusetts Right To Know
Components
Tin(IV) oxide
CAS-No. 18282-10-5
Revision Date 2007-03-01
Pennsylvania Right To Know
Components
Tin(IV) oxide
CAS-No. 18282-10-5
Revision Date 2007-03-01
New Jersey Right To Know
Components
Tin(IV) oxide
CAS-No. 18282-10-5
Revision Date
2007-03-01
California Prop. 65
Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 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.