SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Aluminum Selenide Sputtering Target

Product Number: All applicable American Elements product codes, e.g. AL-SE-02-ST , AL-SE-025-ST , AL-SE-03-ST , AL-SE-035-ST , AL-SE-04-ST , AL-SE-05-ST

CAS #: 1302-82-5

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
Acute oral toxicity Category 3
Acute Inhalation Toxicity - Dusts and Mists Category 3
Specific target organ toxicity - (repeated exposure) Category 2
Target Organs - Liver.
Signal Word
Danger
Hazard Statements
May cause damage to organs through prolonged or repeated exposure
Toxic if swallowed or if inhaled



Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Response
Get medical attention/advice if you feel unwell
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
Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Very toxic to aquatic life with long lasting effects

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component CAS-No Weight %
Aluminum selenide (Al_2Se_3) 1302-82-5 <=100

SECTION 4. FIRST AID MEASURES

General Advice
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Rinse immediately with plenty of water, also under the eyelids, for at least 15
minutes.
Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Immediate medical
attention is required.
Inhalation
Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a
pocket mask equipped with a one-way valve or other proper respiratory medical device.
Immediate medical attention is required.
Ingestion
Do NOT induce vomiting. Call a physician or poison control center immediately.
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
Do not allow run-off from fire-fighting to enter drains or water courses. Hazardous Combustion Products
Hydrogen selenide.
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. Thermal decomposition can lead to release of irritating gases and vapors.
NFPA
Health - 4
Flammability - 0
Instability - 0
Physical hazards -

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
Environmental Precautions
Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities
should be advised if significant spillages cannot be contained.
Methods for Containment and Clean Up
Sweep up and shovel into suitable containers for disposal. Avoid dust formation

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SECTION 7. HANDLING AND STORAGE

Handling
Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.
Storage
Keep containers tightly closed in a dry, cool and well-ventilated place

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures Ensure adequate ventilation, especially in confined areas.
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
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid Pieces
Appearance Light brown
Odor Odorless
Odor Threshold No information available
pH No information available
Melting Point/Range No data available
Boiling Point/Range No information available
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 3.437 g/cm3
Solubility Decomposes in contact with water
Partition coefficient; n-octanol/water No data available
Autoignition Temperature No information available
Decomposition Temperature No information available
Viscosity Not applicable
Molecular Formula Al2 Se3
Molecular Weight 290.84

SECTION 10. STABILITY AND REACTIVITY

Reactive Hazard None known, based on information available
Stability Stable under normal conditions. Conditions to Avoid Incompatible products.
Incompatible Materials Acids, Strong oxidizing agents, Water
Hazardous Decomposition Products Hydrogen selenide
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
Mutagenic Effects No information available
Reproductive Effects No information available. Developmental Effects No information available.
Teratogenicity No information available. STOT - single exposure None known
STOT - repeated exposure Liver
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
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following
substances which are hazardous for the environment. Reacts with water so no ecotoxicity data for the substance is available. Persistence and Degradability Persistence is unlikely based on information available. Bioaccumulation/ Accumulation No information available. Mobility Is not likely mobile in the environment

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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 UN3283
Proper Shipping Name SELENIUM COMPOUND, SOLID, N.O.S.
Technical Name (Aluminium selenide)
Hazard Class 6.1
Packing Group II
TDG
UN-No UN3283
Proper Shipping Name SELENIUM COMPOUND, SOLID, N.O.S. Hazard Class 6.1
Packing Group II
IATA
UN-No UN3283
Proper Shipping Name SELENIUM COMPOUND, SOLID, N.O.S. Hazard Class 6.1
Packing Group II
IMDG/IMO
UN-No UN3283
Proper Shipping Name SELENIUM COMPOUND, SOLID, N.O.S. Hazard Class 6.1

Packing Group II

SECTION 15. REGULATORY INFORMATION

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

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.