SAFETY DATA SHEET

Date Printed: 03/29/2024
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SECTION 1. IDENTIFICATION

Product Identifier: (3N) 99.9% Tin(IV) Selenide

Product Code: SN-SE-03

CAS Number: 20770-09-6

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

H
MIS
Health Ratings (0-4):
Health: 2
Flammability: 1
Physical: 1



Signal Word: Danger
Hazard Statements:
H301+H331: Toxic if swallowed or if inhaled
H373: May cause damage to organs through prolonged or repeated exposure
Precautionary Statements:
P260: Do not breathe dust/fume/gas/mist/vapors/spray
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international

regulations

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Ceramic
Additional Names: Tin(IV) Selenide
Tin selenide ($SnSe_2$):
Percentage: 100 wt%
CAS#: 20770-09-6

SECTION 4. FIRST AID MEASURES

General Treatment:
Seek medical attention if symptoms persist.
Special Treatment:
Immediately remove any clothing soiled by the product. Remove breathing apparatus only after contaminated clothing has been completely removed. In case of irregular breathing or respiratory arrest provide artificial respiration
Important Symptoms:
None
Inhalation:
Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:
Seek medical attention.
Skin:
Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:
Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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SECTION 5. FIREFIGHTING MEASURES

Flammability:
Flammable as powder
Extinguishing Media:
Do not use water for metal fires –use CO_2, sand, extinguishing powder.
Spec. Fire Fighting Procedure:
Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.
See section 10 for decomposition products.

SECTION 6. ACCIDENTAL RELEASE MEASURES

If Material Is Released/Spilled:
Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal.
Take care not to raise dust.

Environmental Precautions:
Isolate runoff to prevent environmental pollution.

SECTION 7. HANDLING AND STORAGE

Handling Conditions:
Wash thoroughly after handling.
Storage Conditions:
Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:
Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:
Provide sufficient ventilation to maintain concentration at or below threshold limit.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits:
0.2 mg/m3 as Se, long-term value
Threshold Limit Value:
0.2 mg/m3 as Se, long-term value
Special Equipment:
None
Respiratory Protection:
Dust Respirator
Protective Gloves:
Rubber gloves
Eye Protection:
Safety glasses or goggles
Body Protection:
Protective work clothing. Wear close-toed shoes and long sleeves/pants.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Color: N/A
Form: Powder/Pieces
Odor: N/A
Water Solubility: Insoluble
Boiling Point: N/A
Melting Point: N/A
Flash Point: N/A
Autoignition Temperature: N/A
Density: N/A
Molecular weight: 276.63 g/mol

SECTION 10. STABILITY AND REACTIVITY

Stability:
Stable under recommended storage conditions
Reacts With:
Oxidizing agents
Incompatible Conditions:
None
Hazardous Decomposition Products:
Metal oxide fume

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:
Eyes:
Causes irritating effect
Skin:
Irritating to skin and mucous membranes
Ingestion:
May cause irritation
Inhalation:
May cause irritation
Chronic:
Selenium may cause amyotropic lateral sclerosis, bronchial irritation, gastrointestinal distress, vasopharyngeal irritation, garlic odor on breath and sweat, metallic taste, pallor, irritability, excessive fatigue, loss of fingernails and hair, pulmonary edema, anemia and weight loss.
Metallic tin and inorganic tin compounds may cause nausea, vomiting, diarrhea, irritation, and pneumoconiosis.
Signs & Symptoms:
N/A
Aggravated Medical Conditions:
N/A
Median Lethal Dose:
N/A
Carcinogen:
NTP-R: Reasonably anticipated to be a carcinogen, limited evidence of carcinogenicity from epidemiologic studies.
IARC-3: Not classifiable as to carcinogenicity to humans.
EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity:
High
Persistent Bioaccumulation Toxicity:
No
Very Persistent, Very Bioaccumulative:
No
Notes:
Very toxic for aquatic organism.
May cause long lasting harmful effect on aquatic life.

Do not allow material to be released to the environment without official permits.
Do not allow product to reach any water sources.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies
Avoid transfer into the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, national, and international regulations.

SECTION 14. TRANSPORT INFORMATION

Hazardous: Hazardous for transportation.
Hazard Class: 6.1 Toxic substances.
Packing Group: III
UN Number: UN 3283
Proper Shipping Name: Selenium compound, solid, n.o.s.(Tin selenide)

SECTION 15. REGULATORY INFORMATION

National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).
SARA Section 313 (specific toxic chemical listings)
20770-09-6 Tin selenide
California Proposition 65
Prop 65 - Chemicals known to cause cancer
Substance is not listed.
Prop 65 - Developmental toxicity
Substance is not listed.
Prop 65 - Developmental toxicity, female
Substance is not listed.
Prop 65 - Developmental toxicity, male
Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
This product contains selenium and is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.
Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorisation for use)
Substance is not listed.
Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

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.