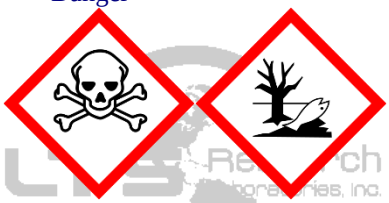
LTS Research Laboratories, Inc.
Safety Data Sheet
Arsenic Selenium Telluride

1. Product and Company Identification

Trade Name:	Arsenic selenium telluride
Chemical Formula:	$As_2Se_{3-x}Te_x$
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	37 Ramland Road
City:	Orangeburg
State:	New York
Zip Code:	10962
Country:	USA
Tel #:	855-587-2436 / 855-lts-chem
Emergency Contact (ChemTrec) Tel #:	800-424-9300 (US & Canada) +1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements:
H330 Fatal if inhaled
H301 Toxic if swallowed

Precautionary Statements:
P261 Avoid breathing dust/fume
P301+P310 If swallowed: immediately call a poison center or doctor
P304+P340 If inhaled: remove person to fresh air
P405 Store locked up
P501 Dispose of according to local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health:	3
Flammability:	1
Reactivity:	1

3. Composition

Chemical Family:	Chalcogenide alloy
Additional Names:	Arsenic selenium tellurium alloy
Arsenic selenide (As_2Se_3):	
Percentage:	0-100 wt%
CAS #:	1303-36-2
EC #:	215-119-5
Arsenic telluride (As_2Te_3):	
Percentage:	0-100 wt%
CAS #:	12044-54-1
EC #:	234-955-1

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for ten minutes.

5. Fire and Explosion Hazards Data

Flammability:	Non-flammable
Flash Point:	N/A
Autoignition Temperature:	N/A
Extinguishing Media:	Use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

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.

7. Handling and Storage

Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container.
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 TLV.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	0.2 mg/m^3 as Selenium, long-term
Threshold Limit Value:	0.2 mg/m^3 as Selenium, long-term
Biological Exposure Index:	35 mg/m^3 as Arsenic in urine at end of workweek
Special Equipment:	None
Respiratory Protection:	Dust Respirator, NIOSH approved
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses / goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	260-381 °C
Density:	N/A
Molecular weight:	N/A

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	None
Incompatible Conditions:	None
Haz. Decomposition Products:	Metal oxide fume

11. Toxicological Information

Potential Health Effects:

Eyes:	Harmful
Skin:	Harmful
Ingestion:	Fatal
Inhalation:	Fatal
Chronic:	Acute arsenic poisoning from ingestion results in marked irritation of the stomach and intestines with nausea, vomiting and diarrhea. In severe cases, the vomitus and stools are bloody and the patient goes into collapse and shock with weak, rapid pulse, cold sweats, coma, and death. Chronic arsenic poisoning may cause disturbances of the digestive system such as loss of appetite, cramps, nausea, constipation or diarrhea. Tellurium is converted in the body to dimethyl telluride which imparts a garlic-like odor to the breath and sweat. Heavy exposure may result in headache, drowsiness, metallic taste, loss of appetite, nausea, tremors, convulsions, and respiratory arrest.

Routes of Entry:	Inhalation, skin, eyes, and ingestion.
Target Organs:	N/A
Signs & Symptoms of Exposure:	N/A
Medical Conditions Aggravated by Exposure:	N/A
Median Lethal Dose:	N/A
Carcinogen:	EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a causal association between exposure and cancer. IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity. ACGIH A1: Confirmed human carcinogen: Agent is carcinogenic to humans based on epidemiologic studies of, or convincing clinical evidence in, exposed humans. Carcinogen as defined by OSHA. NTP-K: Known to be carcinogenic: sufficient evidence from human studies.

12. Ecological Information

Notes:	Very toxic to aquatic organisms. Danger to drinking water even in small quantities.

13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

14. Transportation Data

Hazard Class:	6.1 Toxic substances
Packing Group:	II (III for targets/large pieces)
UN Number:	UN1557
Proper Shipping Name:	Arsenic compounds, solid, n.o.s. inorganic (Arsenic selenium telluride)

15. Regulatory Information

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	Yes

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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