



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Arsenic Selenide

---

1. Product and Company Identification

---

Trade Name: Arsenic selenide  
Chemical Formula:  $As_2Se_3$   
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

24-Hour Emergency Contact: 800-424-9300 (US & Canada)  
+1-703-527-3887 (International)

---

2. Hazards Identification

---

Signal Word: Danger



Hazard Statements:

H330: Fatal if inhaled

Precautionary Statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray  
P284 Wear respiratory protection  
P320 Specific treatment is urgent (see on this label)  
P304+340 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

HMIS Health Ratings (0-4):

Health: 2  
Flammability: 1  
Physical: 1

---

3. Composition

---

Chemical Family: Ceramic  
Additional Names: Arsenic (III) selenide

Arsenic selenide ( $As_2Se_3$ ):  
Percentage: 100 wt%  
CAS #: 1303-36-2  
EC #: 215-119-5

---

#### 4. First Aid Procedures

---

|                     |  |
|---------------------|--|
| General Treatment:  | Remove any contaminated clothing.<br>Remove breathing apparatus only after contaminated clothing has been completely removed.<br>Supply oxygen if breathing is difficult.<br>Seek medical attention if symptoms persist. |
| Special Treatment:  | None   |
| Important Symptoms: | None   |
| Inhalation:         | Remove victim to fresh air. Supply oxygen if breathing is difficult.<br>Seek immediate medical attention   |
| Ingestion:          | Do not induce vomiting, seek immediate medical attention   |
| Skin:               | Wash affected area with mild soap and water.   |
| Eyes:               | Flush eyes with water, blinking often for several minutes.   |

---

#### 5. Firefighting Measures

---

|                                |   |
|--------------------------------|---|
| Flammability:                  | Non-flammable   |
| Extinguishing Media:           | No special restrictions – 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. See section 10 for decomposition products. |

---

#### 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. 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.  |

---

#### 8. Exposure Controls and Personal Protection

---

|                              |   |
|------------------------------|---|
| Permissible Exposure Limits: | 0.2 mg/m <sup>3</sup> as Se, long-term value                            |
| Threshold Limit Value:       | 0.2 mg/m <sup>3</sup> 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. |

---

## 9. Physical and Chemical Characteristics

---

|                           |                  |
|---------------------------|------------------|
| Color                     | Brown/Black      |
| Form:                     | Powder, Granules |
| Odor:                     | Odorless         |
| Water Solubility:         | Insoluble        |
| Boiling Point:            | N/A              |
| Melting Point:            | 360 °C           |
| Flash Point:              | N/A              |
| Autoignition Temperature: | N/A              |
| Density:                  | 4.75 g/cc        |
| Molecular weight:         | 386.72 g/mol     |

---

## 10. Reactivity

---

|                                   |   |
|-----------------------------------|---|
| Stability:                        | Stable under recommended storage conditions |
| Reacts With:                      | Oxidizing agents                            |
| Incompatible Conditions:          | None  |
| Hazardous Decomposition Products: | Selenium dioxide, Arsenic oxides            |

---

## 11. Toxicological Information

---

### Potential Health Effects:

|             |                      |
|-------------|----------------------|
| Eyes:       | May cause irritation |
| Skin:       | May cause irritation |
| Ingestion:  | Fatal                |
| Inhalation: | Fatal                |
| Chronic:    | N/A                  |

### Signs & Symptoms:

### Aggravated Medical Conditions:

N/A  
N/A

### Median Lethal Dose:

>5000 mg/kg for rat by mouth

### Carcinogen:

EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a casual 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

### Addition information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

---

## 12. Ecological Information

---

|  |   |
|--|---|
| Aquatic Toxicity:                      | High  |
| Persistent Bioaccumulation Toxicity:   | No  |
| Very Persistent, Very Bioaccumulative: | No  |
| Notes:                                 | Very toxic for aquatic organisms<br>Avoid transfer into the environment<br>Keep away from water sources<br>May cause long lasting harmful effects to aquatic life |

---

## 13. Disposal Considerations

---

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

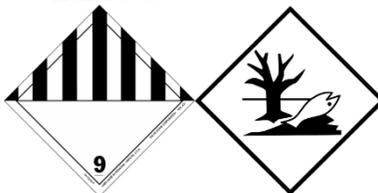
---

#### 14. Transportation Data

---

Hazardous:

Hazardous



Hazard Class:

9 miscellaneous dangerous substances and articles

Packing Group:

III

UN Number:

UN3077

Proper Shipping Name:

Environmentally hazardous substances, solid, n.o.s. (Arsenic selenide)

---

#### 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.

Document Last Revised:

06/15/2015

