LTS Research Laboratories, Inc.
Safety Data Sheet
Zinc Arsenide

1. Product and Company Identification

Trade Name:	Zinc arsenide
Chemical Formula:	Zn_3As_2
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:
H301+H331: Toxic if swallowed or if inhaled
H350: May cause cancer.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:
P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P222: Do not allow contact with air
P231+P232: Handle under inert gas. Protect from moisture
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P281: Use personal protective equipment as required
P301 + P310 + P330: IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P308 + P313: IF exposed or concerned: Get medical advice/ attention.
P321: Specific treatment (see on this label)
P370+P378: In case of fire: Use CO_2, sand, extinguishing powder for extinction
P391: Collect spillage.
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P405: Store locked up
P422: Store contents under inert gas

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):	Powder/Pieces	Bulk
Health:	3	2
Flammability:	0	0
Physical:	2	1

3. Composition

Chemical Family: Ceramic
Additional Names: None

Zinc arsenide (Zn_3As_2):
Percentage: 100 wt%
CAS #: 12006-40-5
EC #: 234-486-2

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 several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability: Non-flammable, except 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.

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: Handle under dry protective gas. Wash thoroughly after handling.
Storage Conditions: Store in a cool dry place in a tightly sealed container. Store under dry inert gas. 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:	0.01 mg/m^3 as As, long-term value
Threshold Limit Value:	0.01 mg/m^3 as As, long-term value
Special Equipment:	None
Respiratory Protection:	Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protective Gloves:	Nitrile rubber, NBR 0.11mm thick
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	Silver Grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	1015 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	5.528 g/cc
Molecular weight:	345.95 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Acids, Bases, Oxidizing agents
Incompatible Conditions:	Air, Water/moisture
Hazardous Decomposition Products:	Metal oxide fume

11. Toxicological Information

Potential Health Effects:

Eyes:	Causes irritation
Skin:	Causes irritation
Ingestion:	Toxic
Inhalation:	Toxic
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	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.

EPA-I: Data are inadequate for an assessment of human carcinogenic potential.

12. Ecological Information

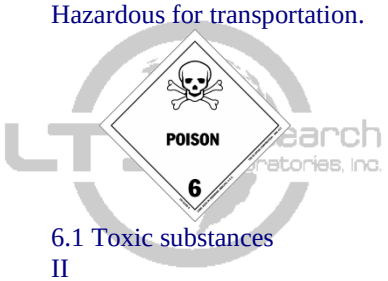
Aquatic Toxicity:	High
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	Very toxic for aquatic organism. May cause long lasting harmful effect on aquatic life. Do not allow material to be released to the environment without proper governmental permits. Do not allow 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. Toxic to aquatic life.

13. Disposal Considerations

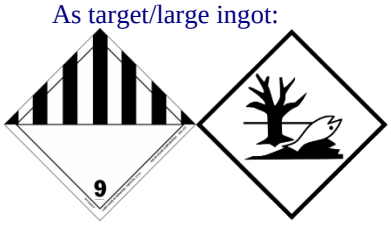
Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous:	Hazardous for transportation.



Hazard Class:	6.1 Toxic substances
Packing Group:	II
UN Number:	UN1557
Proper Shipping Name:	Arsenic compound, solid, n.o.s. (Zinc arsenide)
Hazardous:	As target/large ingot:



Hazard Class:	9 Miscellaneous hazardous substances
Packing Group:	II
UN Number:	UN3077
Proper Shipping Name:	Environmentally hazardous substances, solid, n.o.s. (Zinc arsenide)

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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