



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Iron (III) arsenide

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1. Product and Company Identification

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Trade Name: Iron (III) arsenide  
Chemical Formula: FeAs  
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)

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2. Hazards Identification

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Signal Word: Danger



Hazard Statements: H301+H331: Toxic if swallowed or if inhaled.  
H312: Harmful in contact with skin  
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.  
P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ 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.  
P301+P310+P330: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.  
P304+P340+P311: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.  
P308+P313: IF exposed or concerned: Get medical advice/ attention.  
P391: Collect spillage.  
P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
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: 0  
Physical: 0

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### 3. Composition

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Chemical Family: Ceramic  
Additional Names: Ferric arsenide

Iron (III) arsenide (FeAs):  
Percentage: 100 wt%  
CAS #: 12044-16-5  
EC #: 234-947-8

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### 4. First Aid Procedures

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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. Keep patient warm. Seek immediate medical attention.  
Ingestion: Seek immediate medical attention.  
Skin: Immediately wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.  
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

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### 5. Firefighting Measures

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Flammability: Non-flammable, except as powder  
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.

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### 6. Accidental Release Measures

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If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special protection information. Keep unprotected persons away. 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.

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### 7. Handling and Storage

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Handling Conditions: Handle under dry inert gas. Avoid contact with skin and eyes. Wash thoroughly after handling.  
Storage Conditions: Store in a cool dry place in a tightly sealed container. Protect from moisture and water. 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.

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## 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	0.01 mg/m <sup>3</sup> as As, long-term value
Threshold Limit Value:	0.01 mg/m <sup>3</sup> as As, long-term value
Special Equipment:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
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.

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## 9. Physical and Chemical Characteristics

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Color	N/A
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	N/A
Water Solubility:	Slightly soluble
Boiling Point:	N/A
Melting Point:	1,020 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	7.83 g/cc
Molecular weight:	130.77 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents
Incompatible Conditions:	Heat, flame, sparks, other ignition sources
Hazardous Decomposition Products:	Metal oxide fume, arsenic oxides, iron oxide

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	May cause irritation
Skin:	Harmful in contact with skin
Ingestion:	Toxic if swallowed
Inhalation:	Toxic if inhaled
Chronic:	N/A
Signs & Symptoms:	May cause convulsions. Benign pneumoconiosis, ulceration, gastrointestinal disturbance, depigmentation of skin and hair. Dermatitis, bronchitis, shock, lowered blood pressure, anorexia.
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	IARC: 1 - Group 1: Carcinogenic to humans (Iron (III) arsenide) NTP: Known - Known to be human carcinogen (Iron (III) arsenide) OSHA: OSHA specifically regulated carcinogen (Iron (III) arsenide)

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## 12. Ecological Information

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Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A

Notes: Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach ground water, water course or sewage system  
Very toxic to aquatic organisms.  
Avoid transfer into the environment.

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### 13. Disposal Considerations

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

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### 14. Transportation Data

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Hazardous: Hazardous for transportation



Hazard Class: 6.1 Toxic substances  
Packing Group: III  
UN Number: UN1557  
Proper Shipping Name: Arsenic compounds, solid, n.o.s. (Iron (III) arsenide)

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### 15. Regulatory Information

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

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### 16. Other Information

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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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