



LTS Research Laboratories, Inc.
Safety Data Sheet
Bismuth Indium

1. Product and Company Identification

Trade Name: Bismuth Indium
Chemical Formula: Bi/In
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 2001 Oaks Pkwy
City: Belmont
State: North Carolina
Zip Code: 28012
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: H228: Flammable solid
H315: Causes skin irritation
H319: Causes serious eye irritation
H332: Harmful if inhaled
H335: May cause respiratory irritation

Precautionary Statements: P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P240: Ground/bond container and receiving equipment
P241: Use explosion-proof electrical/ventilating/light/equipment
P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face Protection
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313: If skin irritation occurs: Get medical advice/ attention.
P337 + P313: If eye irritation persists: Get medical advice/ attention.
P362: Take off contaminated clothing and wash before reuse.
P370+P378: In case of fire: Use CO2, powder, or water spray for extinction
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): | Powder | Pieces&Larger |
| Health: | 1 | 1 |
| Flammability: | 2 | 0 |
| Physical: | 1 | 0 |

3. Composition

| | |
|-------------------|-----------|
| Chemical Family: | Metal |
| Additional Names: | None |
| Bismuth (Bi) | |
| Percentage: | 0-100 wt% |
| CAS #: | 7440-69-9 |
| EC #: | 231-177-4 |
| Indium (In) | |
| Percentage: | 0-100 wt% |
| CAS#: | 7440-74-6 |
| EC#: | 231-180-0 |

4. First Aid Procedures

| | |
|---------------------|---|
| General Treatment: | Seek medical attention if symptoms persist. |
| Special Treatment: | None |
| Important Symptoms: | N/A |
| Inhalation: | Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek medical attention. |
| Ingestion: | Rinse mouth with water. Do not induce vomiting. Seek medical attention. |
| Skin: | Wash affected area with mild soap and water. Remove any contaminated clothing. Seek medical attention. |
| Eyes: | Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention. |

5. Firefighting Measures

| | |
|--------------------------------|--|
| Flammability: | Non-flammable, except as powder |
| Extinguishing Media: | No special restrictions – use suitable extinguishing agent for surrounding material and type of fire. 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: | 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: | 0.1 mg/m ³ as In, long-term value |
| Threshold Limit Value: | 0.1 mg/m ³ as In, long-term value |
| Special Equipment: | None |
| Respiratory Protection: | Dust Respirator |
| Protective Gloves: | Rubber gloves Check gloves prior to each use |
| 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 | N/A |
| Form: | Powder, Granules, Sputtering target, Custom parts |
| Odor: | N/A |
| Water Solubility: | N/A |
| Boiling Point: | N/A |
| Melting Point: | N/A |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Density: | N/A |
| Molecular weight: | N/A |

10. Reactivity

| | |
|-----------------------------------|---|
| Stability: | Stable under recommended storage conditions |
| Reacts With: | Oxidizing agents, Acids |
| Incompatible Conditions: | None |
| Hazardous Decomposition Products: | Metal oxide fume, Indium Oxide |

11. Toxicological Information

| | |
|--------------------------------|----------------------|
| Potential Health Effects: | |
| Eyes: | May cause irritation |
| Skin: | May cause irritation |
| Ingestion: | May cause irritation |
| Inhalation: | May cause irritation |
| Chronic: | N/A |
| Signs & Symptoms: | N/A |
| Aggravated Medical Conditions: | N/A |
| Median Lethal Dose: | N/A |
| Carcinogen: | N/A |

12. Ecological Information

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

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous as powder only



Hazard Class: 4.1 Flammable solids, self-reactive substances and solid desensitized explosives
Packing Group: III
UN Number: UN3089
Proper Shipping Name: Metal powders, flammable, n.o.s. (Bismuth Indium)

15. Regulatory Information

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

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: 08/25/2023