



LTS Research Laboratories, Inc.
Safety Data Sheet
Zinc Aluminum Alloy

1. Product and Company Identification

Trade Name: Zinc aluminum alloy
Chemical Formula: ZnAl
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: H250: Catches fire spontaneously if exposed to air
H260: In contact with water releases flammable gases which may ignite spontaneously
H410: Very toxic to aquatic life with long lasting effects

Precautionary Statements: P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P222: Do not allow contact with air
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire
P231+P232: Handle under inert gas. Protect from moisture
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P335+P334: Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
P370+P378: In case of fire: Use CO2, sand, extinguishing powder for extinction
P391: Collect spillage
P402+P404: Store in a dry place. Store in a closed container
P403+P233: Store in a well-ventilated place. Keep container tightly closed
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 | Bulk |
|----------------------------|--------|------|
| Health: | 1 | 0 |
| Flammability: | 3 | 0 |
| Physical: | 2 | 0 |

3. Composition

| | |
|-------------------|-----------|
| Chemical Family: | Alloy |
| Additional Names: | N/A |
| Aluminum (Al): | |
| Percentage: | 0-100 wt% |
| CAS #: | 7429-90-5 |
| EC #: | 231-072-3 |
| Zinc (Zn): | |
| Percentage: | 0-100 wt% |
| CAS #: | 7440-66-6 |
| EC #: | 231-175-3 |

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: | Seek Medical Attention. |
| 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 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: | 15 mg/m ³ as Al, long-term value |
| Threshold Limit Value: | 1 mg/m ³ as Al, long-term value |
| Special Equipment: | None |
| Respiratory Protection: | Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. |
| 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 | Bluish silver, lustrous |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Contact with water releases flammable gases |
| Boiling Point: | N/A |
| Melting Point: | 382-660°C |
| 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, air acids, bases, halocarbons, water, Alcohols, Halogens, CO ₂ |
| Incompatible Conditions: | Air, dust, heat, water/moisture, acids, bases, oxidizing agents |
| Hazardous Decomposition Products: | Metal oxide fume, Hydrogen |

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: | 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. |

13. Disposal Considerations

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

14. Transportation Data

| | |
|-----------------------|---|
| Hazardous: | Hazardous as powder only |
| |  |
| Hazard Class: | 4.3 Substances which, in contact with water, emit flammable gases. |
| Secondary class: | 4.2 Spontaneously combustible |
| Packing Group: | II (1-50 microns), III (50-1000 microns) |
| UN Number: | UN3135 |
| Proper Shipping Name: | Water-reactive solid, self-heating, n.o.s (Zinc Aluminum powder) |

15. Regulatory Information

| | |
|--------------------------------|----------------------|
| Sec 302 Extremely Hazardous: | No |
| Sec 304 Reportable Quantities: | N/A |
| Sec 313 Toxic Chemicals: | Yes (Zinc, aluminum) |

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: 09/13/2023