



LTS Research Laboratories, Inc.
Safety Data Sheet
Aluminum Metal

1. Product and Company Identification

Trade Name: Aluminum metal
Chemical Formula: Al
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
H261 In contact with water releases flammable gas

Precautionary Statements: P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking
P222 Do not allow contact with air
P231+P232 Handle under inert gas. Protect from moisture
P370+P378 In case of fire: Use special powder for metal fires for extinction
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: Metal
Additional Names:

Aluminum (Al):
Percentage: 100 wt%
CAS #: 7429-90-5
EC #: 231-072-3

4. First Aid Procedures

| | |
|---------------------|--|
| General Treatment: | Seek medical attention if symptoms persist. |
| Special Treatment: | None |
| Important Symptoms: | None |
| Inhalation: | Remove victim to fresh air. If unconscious, place patient stably in side position for transportation |
| Ingestion: | Seek medical attention |
| Skin: | Wash affected area with mild soap and water |
| 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

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|----------------------------------|--|
| 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

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|----------------------------|--|
| 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: | 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: | 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 | Metallic grey |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Insoluble – may produce flammable gas |
| Boiling Point: | 2519 °C |
| Melting Point: | 660 °C |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Density: | 2.70 g/cc |
| Molecular weight: | 29.981 g/mol |

10. Reactivity

| | |
|-----------------------------------|---|
| Stability: | Stable under recommended storage conditions |
| Reacts With: | Oxidizing agents, Air, Acids, Bases, Halocarbons, water |
| Incompatible Conditions: | Air, Moisture |
| Hazardous Decomposition Products: | Metal oxide fume |

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:

Aggravated Medical Conditions:

N/A
N/A

Median Lethal Dose:

N/A

Carcinogen:

N/A

12. Ecological Information

| | |
|--|-----|
| Aquatic Toxicity: | Low |
| Persistent Bioaccumulation Toxicity: | No |
| Very Persistent, Very Bioaccumulative: | No |
| 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: 4.3 Substances which, in contact with water produce flammable gas
Packing Group: II
UN Number: UN1396
Proper Shipping Name: Aluminium Powder, Uncoated

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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