



LTS Research Laboratories, Inc.
Safety Data Sheet
Aluminum Nitrate Nonahydrate

1. Product and Company Identification

Trade Name: Aluminum Nitrate Nonahydrate
Chemical Formula: $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$
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: H318: Causes serious eye damage

Precautionary Statements: P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338+P310: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician

HMIS Health Ratings (0-4):
Health: 2
Flammability: 0
Physical: 1

3. Composition

Chemical Family: Inorganic material
Additional Names: Aluminum nitrate nonahydrate, Nitric acid, Aluminum salt, Aluminum trinitrate nonahydrate

Aluminum Nitrate Nonahydrate ($\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$):
Percentage: 100 wt%
CAS #: 7784-27-2
EC #: 236-751-8

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. 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: Water spray, CO_2 , Dry chemical, Alcohol-resistant foam
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

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| Permissible Exposure Limits: | 2 mg/m ³ as Al(NO ₃) ₃ ·9H ₂ O, long-term value |
| Threshold Limit Value: | N/A |
| Special Equipment: | None |
| Respiratory Protection: | Dust Respirator |
| Protective Gloves: | Nitrile 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

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|---------------------------|--|
| Color: | N/A |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | 64g/100mL (25 °C) |
| Boiling Point: | 150°C |
| Melting Point: | 73 °C |
| Flash Point: | 35°C |
| Autoignition Temperature: | N/A |
| Density: | 1.72 g/cc |
| Molecular weight: | 375.13 g/mol |

10. Reactivity

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| Stability: | Stable under recommended storage conditions |
| Reacts With: | Strong reducing agents, Strong oxidizing agents, Bases, Combustible material, Powdered metals, Acids, Cyanides, Heavy metals |
| Incompatible Conditions: | Excess heat, Contact with combustible/organic material, Dust formation, Exposure to moist air or water. |
| Hazardous Decomposition Products: | Nitrogen oxides, Aluminum oxide |

11. Toxicological Information

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|--------------------------------|------------------------------------|
| Potential Health Effects: | |
| Eyes: | Causes serious eye damage |
| 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: | LD50: =3671 mg/kg for rat by mouth |
| Carcinogen: | N/A |

12. Ecological Information

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| 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

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|-----------------------|----------------------------------|
| Hazardous: | Not hazardous for transportation |
| Hazard Class: | N/A |
| Packing Group: | N/A |
| UN Number: | N/A |
| Proper Shipping Name: | N/A |

15. Regulatory Information

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| 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.

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