

# Safety Data Sheet

## Aluminum Nitrate, 9-Hydrate

### Section 1 Product Description

**Product Name:** Aluminum Nitrate, 9-Hydrate  
**Recommended Use:** Science education applications  
**Synonyms:** Aluminum Trinitrate: Aluminum Nitrate, Nonahydrate  
**Supplier:** C2A Sales & Supplies (Barbados) Ltd.  
#3 Canewood Road, Jackson, St. Michael, Barbados BB11005  
1-246-426-1256

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;



#### WARNING

Causes skin irritation. Causes serious eye irritation.

#### GHS Classification:

Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity - Oral Category 5

|   |  |
|---|--|
| <b>Acute Toxicity Dermal Contains</b>               | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Gas Contains</b>       | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Vapor Contains</b>     | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Dust/Mist Contains</b> | 100 % of the mixture consists of ingredient(s) of unknown toxicity |

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u>        | <u>CAS #</u> | <u>%</u> |
|-----------------------------|--------------|----------|
| Aluminum Nitrate, 9-Hydrate | 7784-27-2    | 100      |

### Section 4 First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** N/A

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Hazardous Combustion Products: Aluminum oxide dust,, Nitrogen oxides

## Section 6 Spill or Leak Procedures

### Steps to Take in

**Released or Spill:** **Spill Response Material Is** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Avoid the generation of dusts during clean-up.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Vacuum or sweep up material and place in a disposal container

## Section 7 Handling and Storage

**Handling:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep container tightly closed in a cool, well-ventilated place.

**Storage:** Keep container tightly closed in a cool, well-ventilated place.

**Storage Code:** Green - general chemical storage

## Section 8 Protection Information

### Chemical Name

No data available

| <u>ACGIH</u> |               |
|--------------|---------------|
| <u>(TWA)</u> | <u>(STEL)</u> |
| N/A          | N/A           |

| <u>OSHA PEL</u> |               |
|-----------------|---------------|
| <u>(TWA)</u>    | <u>(STEL)</u> |
| N/A             | N/A           |

### Control Parameters

#### Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

#### Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use. Respiratory protection may be required in addition to ventilation depending upon conditions of use.

#### Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

#### Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

#### Gloves:

Nitrile

## Section 9 Physical Data

**Formula:** Al(NO<sub>3</sub>)<sub>3</sub>·9H<sub>2</sub>O

**Molecular Weight:** 375.13 g/mol

**Appearance:** Solid

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** 2.5 - 3.5 at 50 g/l at 25 °C (77 °F)

**Melting Point:** 73 C

**Boiling Point:** No data available

**Flash Point:** No data available

**Flammable Limits in Air:** N/A N/A

**Vapor Pressure:** N/A

**Evaporation Rate (BuAc=1):** N/A

**Vapor Density (Air=1):** N/A

**Specific Gravity:** N/A

**Solubility in Water:** Soluble

**Log Pow (calculated):** No data available

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** No data available

**Percent Volatile by Volume:** N/A

## Section 10 Reactivity Data

**Reactivity:** No data available

**Chemical Stability:** Stable under normal conditions. **Conditions to Avoid:**

None known.

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**Incompatible Materials:** Strong reducing agents, Strong acids  
**Hazardous Decomposition Products:** Nitrogen oxides, Aluminum oxide dust,, Metals (powdered)  
**Hazardous Polymerization:** Will not occur

### Section 11 Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.

**Symptoms (Acute):** Gastrointestinal,

**Delayed Effects:** No data available

**Acute Toxicity:**

| Chemical Name               | CAS Number | Oral LD50                   | Dermal LD50    | Inhalation LC50 |
|-----------------------------|------------|-----------------------------|----------------|-----------------|
| Aluminum Nitrate, 9-Hydrate | 7784-27-2  | Oral LD50 Rat<br>3671 mg/kg | Not determined | Not determined  |

**Carcinogenicity:**

| Chemical Name               | CAS Number | IARC   | NTP        | OSHA       |
|-----------------------------|------------|--------|------------|------------|
| Aluminum Nitrate, 9-Hydrate | 7784-27-2  | Listed | Not listed | Not listed |

**Chronic Effects:**

**Mutagenicity:** No evidence of a mutagenic effect.

**Teratogenicity:** No evidence of a teratogenic effect (birth defect).

**Sensitization:** No evidence of a sensitization effect.

**Reproductive:** No evidence of negative reproductive effects.

**Target Organ Effects:**

**Acute:** See Section 2

**Chronic:** Not listed as a carcinogen by IARC, NTP or OSHA.

### Section 12 Ecological Data

**Overview:** This material is not expected to be harmful to the ecology.

**Mobility:** No data

**Persistence:** No data

**Bioaccumulation:** No data

**Degradability:** No data

**Other Adverse Effects:** No data

| Chemical Name | CAS Number | Eco Toxicity |
|---------------|------------|--------------|
| N/A           | 7784-27-2  |              |

### Section 13 Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

**Waste Disposal Code(s):** Not Determined

### Section 14 Transport Information

**Ground - DOT Proper Shipping Name:**  
Not dangerous goods

**Air - IATA Proper Shipping Name:**  
Not regulated for air transport by IATA.

## Section 15

## Regulatory Information

**TSCA Status:**

A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

| Chemical Name | CAS | § 313 Name | § 304 RQ | CERCLA RQ | § 302 TPQ | CAA 112(2) Number | TQ |
|---------------|-----|------------|----------|-----------|-----------|-------------------|----|
|---------------|-----|------------|----------|-----------|-----------|-------------------|----|

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|                   |           |    |    |    |    |    |
|-------------------|-----------|----|----|----|----|----|
| No data available | 7784-27-2 | No | No | No | No | No |
|-------------------|-----------|----|----|----|----|----|

**California Prop 65:**

No California Proposition 65 ingredients

## Section 16

## Additional Information

Revised: 08/21/2018

Replaces: 06/15/2018

Printed: 08-25-2018

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

**Glossary**

|        |   |      |   |
|--------|---|------|---|
| ACGIH  | American Conference of Governmental Industrial Hygienists             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                      | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL  | Permissible Exposure Limit                    |
| DOT    | U.S. Department of Transportation                                     | ppm  | Parts per million                             |
| IARC   | International Agency for Research on Cancer                           | RCRA | Resource Conservation and Recovery Act        |
| N/A    | Not Available   | SARA | Superfund Amendments and Reauthorization Act  |
|        |   | TLV  | Threshold Limit Value                         |
|        |   | TSCA | Toxic Substances Control Act                  |
|        |   | IDLH | Immediately dangerous to life and health      |

