



# Holland Company

## Aluminum Ammonium Sulfate

### Safety Data Sheet

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product/Chemical Name:** Aluminum Ammonium Sulfate

**Chemical Family:** Inorganic aluminum salt

**General use:** Pharmaceutical, Research, Manufacturing applications

**Company Information:**

Holland Company, Inc.  
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Part #: A1071

#### SECTION 2. HAZARDS IDENTIFICATION



**WARNING – IRRITANT (Mild)**  
**AVOID CONTACT**

**Hazard Statements**

Harmful if ingested.  
Irritating to eyes.  
May be irritating to skin.  
Dust may cause irritation to the respiratory system.

**Precautionary Statements**

Avoid direct contact.  
Use protective equipment if direct contact is possible.  
Wash hands thoroughly after contact.



### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance**

**Chemical name:** Aluminum Ammonium Sulfate dodecahydrate

**Name:** Ammonium Alum

**CAS#:** 7784-26-1

**EC number:** 232-055-3

**Impurities:** NA. No impurities or additives which are themselves classified and which contribute to the classification of the substance.

### SECTION 4. FIRST AID MEASURES

**Eye contact:**

Irritating sensation may occur.

Immediately rinse eyes with water for an extended period.

If irritation persists get medical care.

**Skin contact:**

Clean skin and rinse with water.

If irritation develops get medical attention.

If clothing has been contaminated clean and wash before reuse.

**Inhalation of dust:**

Move to fresh air.

If irritation develops get medical care.

**Ingestion:**

Oral irritation may occur.

Spontaneous vomiting may occur.

Do not actively induce vomiting.

Rinse mouth and drink water.

Get medical attention.

### SECTION 5. FIRE FIGHTING MEASURES

**Flammability:**

Product is not flammable and will not burn.

**Controls:**

If possible remove material from areas under fire threat.

**Hazards:**

In a fire dried product can decompose at > 280C (536F) and result in formation of sulfur oxides, and minimal ammonia. Exposure to products of decomposition during a fire may be hazardous to health.

**Special equipment:**

In case of possible exposure to products of decomposition use appropriate self-contained or other approved respiratory protection. Consult engineers if necessary.

**Mechanical impact:**

Not sensitive.

**Static discharge:**

Not sensitive.



## SECTION 6. ACCIDENTIAL RELEASE MEASURES

### General:

Avoid generating dust. Use protective equipment to avoid exposure to eyes, skin, and respiratory system. Consult engineers if necessary.

### Personal protection:

If direct contact with spilled material is likely use appropriate protective equipment.

### Releases:

Collect for reuse. Avoid creating dust during collection.

Dispose unused material in accordance with local, state, provincial and federal regulations.

Consult engineers if necessary.

## SECTION 7. HANDLING AND STORAGE

### Incompatible Chemicals:

Store separately from incompatible materials such as oxidizers. Consult engineers if necessary.

### Containment:

Keep material in secure, closed containers.

### General hygiene:

Do not eat, drink, take medication or smoke when direct contact is possible.

Always thoroughly wash hands after leaving a work area where contact is possible or has occurred.

### Storage:

Keep in closed containers in dry, protected areas. Avoid extremes in temperatures.

Consult engineers if necessary.

### Conditions for storage:

Exposure to excessive humidity or to water with result in product handling issues from product caking and hardening.

### Ventilation:

No special requirements.

### Personal protection:

If direct contact with material is likely use protective equipment.

## SECTION 8. EXPOSURE CONTROL / PERSONNAL PROTECTION

### Exposure Limits

No Information: Cross referenced for aluminum soluble salts

OSHA PEL		ACGIH TLV		NIOSH
TWA	STEL	TWA	STEL	IDLH
2mg/m <sup>3</sup> as Al	none est.	2mg/m <sup>3</sup> as Al	none est.	none est.

**Respiratory - Ventilation:** Local passive ventilation is typically used. Under normal conditions respiratory protective equipment is not needed. If work requires direct exposure to product dust use appropriate, approved respiratory protection. Consult engineers if necessary.

**Eye wash:** Have an appropriate eye wash bottle, fountain, or safety shower available in the work area.

**Eyes:** Use protective eye glasses-goggles and face shield protection to prevent direct contact.

**Skin:** Use impervious gloves and foot covering. Wear long sleeve shirts and full length trousers.



## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Solid, Clear to white crystals or powder.

**Odor:** Not significant.

**Odor Threshold:** NA

**pH:** 4.6 ± (0.05M solution).

**Melting/Freeze point:** 94.5C ±

**Boiling point-range:** NA

**Flash point:** NA

**Evaporation rate:** NA

**Flammability:** Not flammable.

**Upper/lower flammability limits:** NA

**Vapor pressure/density:** NA

**Density:** 1.645 ±

**Water Solubility:** approx. 15% @ 21C

**Partial coefficient: n-octanol/water;** NA, inorganic compound column 2 of REACH Annex VII.

**Auto ignition:** NA

**Decomposition temperature:** >280C (536F)

**Viscosity:** NA

## SECTION 10. STABILITY AND REACTIVITY

### **Chemical stability:**

Product is chemically stable under normal ambient temperature and conditions while stored or used.

**Conditions to avoid:** Do not exceed 280C (536F)

**Materials to avoid:** Strong bases, oxidizers. Consult engineers if necessary.

### **Decomposition products:**

Thermal decomposition at temperatures encountered in fires can release irritating fumes.

## SECTION 11. TOXICOLOGY INFORMATION

### **Toxicity:**

Review suggests low order of potential toxicity

**Oral (ingestion) estimate:** Not available

**Inhalation estimate:** Not available

**Dermal estimate:** Not available

### **Effects of exposure:**

**Skin:** Repeated contact may dry and irritate skin.

**Eyes:** May cause irritation.

**Respiratory:** Inhalation dust may cause bronchial irritation and coughing.

**Ingestion:** Can cause vomiting, irritation to mouth, throat, and stomach.

**Mucous membranes:** May cause irritation.

**Sensitization:** Not sensitizing

**Carcinogenicity:** NTP Not listed. IARC Not listed. OSHA Not listed.

### **Reproductive Toxicity, Mutagenic or teratogenic effects:**

No known reproductive toxicity, mutagenic or teratogenic effects in animal experiments are known.

## SECTION 12. ECOLOGICAL INFORMATION

**Aquatic toxicity:** No data found.

**Toxicity to other organisms:** No data found.

**Bioaccumulation potential:** This product is not expected to bioaccumulate.

**Octanol-water coefficient:** NA, inorganic compound.

**Biodegradability:** Not applicable to inorganic substances.

**Chemical degradability:** In water at pH range of 5.5-8.8 precipitates of aluminum hydroxide are formed.

**Mobility in Soil:** No data available.

## SECTION 13. DISPOSAL CONSIDERATIONS

**RCRA Hazardous waste:** Not listed.

**Special precautions:** None known

**Container reuse:** Dispose of Containers that cannot be thoroughly cleaned in accordance with local, state, provincial, and federal regulations. Consult engineers if necessary.

## SECTION 14. TRANSPORTATION INFORMATION

**Land (DOT), Sea (IMDG), Air (ICAO/IATA):** Not regulated

**UN number:** Not regulated

**Shipping name:** Not regulated

**Hazard class:** Not regulated

**Packing group:** Not regulated

**Environmental hazards:** Not a marine pollutant

**Special precautions:** None

## SECTION 15. REGULATORY INFORMATION

**RCRA Hazardous waste:** Not Listed. Consult engineers if necessary.

**CERCLA Hazardous substance:** Not listed CWA, Sec.311 (b) (4)

**CERCLA Reportable Quantity (RQ):** NA

**SARA 311/312 Categories:**

**Acute (immediate) health effects:** Yes (possible irritant)

**Chronic (delayed) health effects:** No

**Sudden release of pressure hazard:** No

**Reactivity hazard:** No

**SARA 313 Toxic Chemical listing:** Not listed

**SARA Extremely hazardous substance (EHS):** Not listed

**OSHA Air (29CFR 1910.10000, table Z-1, Z-1A):** Not listed

**OSHA Special Regulated Substance (29CFR 1910):** Not listed

**ELINCS / REACH annex XIV:** Not listed

**REACH Pre-registered substances:** Listed

**United States TSCA Section Inventory Status:** Product exempt or listed on the TSCA Inventory.

**WHMIS:** D2B (Possible eye irritant)

**Canada CEPA / Canadian Domestic Substances List (DSL):**

All components of this product are included on the DSL or not required to be listed.

**State - Province regulations:** State and Province specific regulations have not been determined by the Holland Company. Consult engineers if necessary.

**Inventories:** Chinese, Korean (ECL), Philippines (PICCS), Japanese (ENCS), European (EINECS), NZ.

## SECTION 16. OTHER INFORMATION

**Preparatory statement:**

The information in this Safety Data Sheet (SDS) is correct to the best of our knowledge, information we have available, and belief as of the publication date. The information is designed solely as guidance for handling, storage, transportation, release, and disposal and is not to be considered a warranty or quality specification.

**Date Sources for the SDS:**

Literature, databases, practice, publications, own tests, regulations

**Revision:**

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