AMMONIUM ACETATE

1. Product Identification

Synonyms: Acetic acid; ammonium salt
CAS No.: 631-61-8
Molecular Weight: 77.08
Chemical Formula: CH₃COONH₄
Product Codes:
J.T. Baker: 0596, 0598, 0599
Mallinckrodt: 3271, 3272, 5857

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Acetate</td>
<td>631-61-8</td>
<td>100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 3 - Severe
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code: Green (General Storage)

Potential Health Effects
Inhalation:
Dusts may irritate the respiratory tract with symptoms of coughing, and shortness of breath.

Ingestion:
May irritate the G. I. tract. Abdominal pain, nausea, and vomiting may occur. Ingestion of large amounts may result in diuresis and systemic ammonia poisoning. Normal human subjects infused with ammonium acetate exhibit flaccidity of facial muscles, tremor, generalized discomfort, anxiety and impairment of motor performance.

Skin Contact:
May cause irritation with redness and pain.

Eye Contact:
May cause irritation, redness and pain. Splashes from solutions may produce severe eye damage.

Chronic Exposure:
Chronic ammonium acetate ingestion may cause some liver dysfunction.

Aggravation of Pre-existing Conditions:
Persons with pre-existing liver damage may be more susceptible to the effects of this material.

4. First Aid Measures

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

Skin Contact:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Call a physician.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.
7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**
None established.

**Ventilation System:**
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g., lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

**Appearance:**
Transparent, colorless crystals.

**Odor:**
Slight acetic acid odor.

**Solubility:**
Very soluble in water.

**Specific Gravity:**
1.07

**pH:**
7.0 Aqueous solution: very concentrated solution is slightly acidic

**% Volatiles by volume @ 21C (70F):**
No information found.

**Boiling Point:**
No information found.

**Melting Point:**
114C (237F)

**Vapor Density (Air=1):**
No information found.

**Vapor Pressure (mm Hg):**
No information found.

**Evaporation Rate (BuAc=1):**
No information found.
10. Stability and Reactivity

**Stability:**
Stable under ordinary conditions of use and storage. Hygroscopic. Readily absorbs moisture from the air. Tends to lose ammonia under normal conditions.

**Hazardous Decomposition Products:**
 Burning may produce ammonia, nitrogen oxides.

**Hazardous Polymerization:**
Will not occur.

**Incompatibilities:**
Decomposes on contact with Sodium Hypochlorite, strong acids.

**Conditions to Avoid:**
Heat, moisture, incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>NTP Carcinogen</th>
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12. Ecological Information

**Environmental Fate:**
When released into water, this material is expected to readily biodegrade. When released into the water, this material is expected to have a half-life between 1 and 10 days.

**Environmental Toxicity:**
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

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\**Federal, State & International Regulations - Part 1**

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\**Federal, State & International Regulations - Part 2**

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**Australian Hazchem Code:** None allocated.  
**Poison Schedule:** None allocated.  
**WHMIS:**  
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 1  Flammability: 1  Reactivity: 0  
**Label Hazard Warning:**  
CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED.  
**Label Precautions:**  
Avoid breathing dust.  
Keep container closed.  
Avoid contact with eyes, skin and clothing.  
Wash thoroughly after handling.  
Use with adequate ventilation.  
**Label First Aid:**  
In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In all cases call a physician.  
**Product Use:**  
Laboratory Reagent.  
**Revision Information:**  
No Changes.  
**Disclaimer:**  
************************************************************************************************  
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