

# School Material Safety Data Sheet

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No. 9

AMMONIUM ACETATE

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## SECTION 1. INTRODUCTORY INFORMATION

**MATERIAL NAME AND FORMULA:** AMMONIUM ACETATE;  $\text{NH}_4 (\text{C}_2\text{H}_3\text{O}_2)$

**SYNONYMS:** Acetic Acid Ammonium Salt

**CAS NUMBER:** 0631-61-8

**INGREDIENTS:** Ammonium acetate; ca 100%

**DOT CLASSIFICATION:** ORM-E

**MANUFACTURERS:** Always request Material Safety Data Sheets from your chemical supplier. These should indicate the manufacturer of the substance and include an emergency phone number to call. The Manufacturers section of this book contains a listing of some of the larger manufacturers and available emergency numbers.

**DESCRIPTION:** Ammonium acetate is a colorless-to-white crystalline solid with a weak ammonia odor. The material is hygroscopic and deliquescent.

### PRELIMINARY INFORMATION:

This material is an irritant when in contact with mucous membranes. It can also be irritating to the skin and digestive tract. Heating or reactions with certain compounds can release vapors of ammonia and acetic acid. Ammonium acetate is not combustible. Most common area of use would be the chemistry lab.



## SECTION 2. USE AND STORAGE INFORMATION

### -- PRELIMINARY PLANNING CONSIDERATIONS --

- Safety glasses or goggles and protective clothing (rubberized apron, etc.) should be worn for all experiments.
- Be sure eyewash station and safety shower are in good working order and readily available.
- Always provide for safe disposal of all chemical waste generated in the lab. Check applicable regulations prior to use.
- Use only with adequate ventilation.

### -- USAGE PRECAUTIONS AND PROCEDURES --

- For safety, contact lenses should not be worn in the laboratory: Soft lenses may absorb and all lenses may concentrate irritants. Particles may adhere to contact lenses and cause corneal damage.
- READ THE LABEL and follow all precautions.
- Maintain good housekeeping practices to avoid unintentional mixing with incompatible materials.
- After working with this material, always wash hands and face before eating, drinking, or smoking.
- No smoking in storage or use area.
- Keep away from strong oxidizing agents and sources of heat or ignition.
- Avoid creating airborne dust conditions.
- Decomposes on contact with sodium hypochlorite.
- Thermal decomposition occurs above 237°F (113.9°C). Decomposition products include irritating vapors of ammonia and acetic acid.
- Avoid contact with skin, eyes, and clothing.
- Do not breathe dust or mist. Do not ingest.

### -- ADDITIONAL INFORMATION --

- Material does not polymerize. It is stable in closed containers under normal conditions.
- Incompatible with strong oxidizers.

### -- PREFERRED STORAGE LOCATION AND METHODS --

- Storage area should be cool and well ventilated. Containers should be tightly closed.
- All chemical containers should be protected from physical damage and kept out of direct sunlight.
- Do not store chemicals alphabetically by name; store by chemical family instead to keep compatibles together.
- Purchase only amounts equivalent to one year's needs.
- Store with compatible materials on sturdy shelving, away from strong oxidizers, including sodium hypochlorite.
- No smoking in storage or use area.

## SECTION 3. SPILLS AND DISPOSAL PROCEDURES

### IF MATERIAL IS SPILLED:

- Ventilate area of spill.
- Cleanup personnel should wear personal protective equipment as necessary to prevent skin and eye contact and inhalation of dust or mist.
- Carefully scoop up spilled material and collect in a suitable container for disposal or reclamation. Avoid creating airborne dust conditions.
- Cleanup methods such as vacuuming (with appropriate filter) or wet mopping will minimize dust dispersion.
- If solution is spilled, cover material with an inert solid absorbent (vermiculite, dry sand, etc.), and scoop into appropriate container for disposal in accordance with existing regulations.

### DISPOSAL OF SMALL QUANTITIES:

- Contact supplier or licensed disposal contractor for specific treatment and disposal procedures.

**DISPOSAL OF LARGER AMOUNTS:** Contact a licensed disposal company.

\*\*\* FOLLOW ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS FOR ALL WASTE DISPOSAL \*\*\*

## SECTION 4: HEALTH HAZARDS

No TLV established.

Rat, Oral, LD<sub>50</sub>: 632 mg/kg

- Ammonium acetate is irritating to the nose, mouth, and respiratory tract.
- Eye contact with the dust causes eye irritation.
- Skin contact may cause mild irritation.
- This substance is mildly toxic by ingestion and may cause irritation of the digestive tract, diarrhea, diuresis, and systemic ammonia poisoning.
- Ammonium acetate has not been identified as a known or suspected carcinogen by the NTP, IARC or OSHA.

## SECTION 5: FIRST AID PROCEDURES

**Eye contact:**

- Flush eyes promptly with plenty of running water for at least 15 minutes, including under the eyelids.
- Get medical attention if irritation persists.\*

**Skin contact:**

- Flush with plenty of running water then wash exposed areas of skin with soap and water.
- Get medical attention if irritation persists.\*

**Inhalation:**

- Remove victim to fresh air; restore and/or support breathing as necessary.
- Get medical help for coughing or breathing difficulty.\*

**Ingestion:**

- Get prompt medical attention.\*
- Give several glasses of milk or water to drink. Induce vomiting -- but ONLY if victim is conscious and alert.
- Never give anything by mouth to a person who is unconscious or convulsing.
- Call a physician or poison control center. Transport to a medical facility.

\* Get medical help (in school, paramedic, or community) for further treatment, observation, and support after first aid.

## SECTION 6: FIRE PROCEDURES AND DATA

- Ammonium acetate is a noncombustible material.
- Extinguishing media: Use media appropriate to surrounding fire conditions.
- For major fires, or if large quantities of this material are involved, fire fighters should wear appropriate protective clothing and use respiratory protection. Self-contained breathing apparatus is recommended.
- A water spray may be used to cool fire-exposed containers and disperse vapors.

**THERMAL DECOMPOSITION PRODUCTS:** Irritating vapors of ammonia and acetic acid.

**FLASH POINT AND METHOD(S)** ... Noncombustible

**AUTOIGNITION TEMPERATURE** ... Noncombustible

**FLAMMABILITY LIMITS IN AIR (vol. %):**

## SECTION 7: PHYSICAL DATA

**BOILING POINT (@ 1 atm)** ... Decomposes

**VAPOR DENSITY (air = 1)** ... not applicable

**SOLUBILITY IN WATER (@ 4°C)** ... (wt. %) 148 (very soluble in cold water; decomposes in hot water)

**SPECIFIC GRAVITY (20°/4°C)** ... 1.17; crystal (1.09; solution)

**MELTING POINT** ... 237.2°F. (114°C)

**MOLECULAR WEIGHT** ... 77.08

**DATA SOURCES:** Genium's Industrial MSDS #139 (8/85) and references 1, 2, 4-7, 12, 55, 63, 78, 506, 509.  
(see glossary for titles)

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Approvals:

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Medical Review

02