

**MATERIAL SAFETY DATA SHEET****AMMONIUM ACETATE**

PRODUCT CODE NUMBER(S): 1220-1, 1221-1

**PRODUCT IDENTIFICATION**

**Chemical Name and Synonyms:** *Ammonium acetate; Acetic acid, ammonium salt*  
**Chemical Family:** *Acetates, saturated aliphatic carboxylic acid salt*  
**Chemical Formula:**  $CH_3COONH_4$   
**Product Use:** *Laboratory reagent*  
**Manufacturer's Name and Address:**  
*Caledon Laboratories Ltd.  
40 Armstrong Avenue  
Georgetown, Ontario L7G 4R9*  
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**HAZARDOUS INGREDIENTS OF MATERIALS**

<i>Ingredients</i>	<i>%</i>	<i>TLV Units</i>	<i>CAS No.</i>
<i>Ammonium acetate</i>	<i>&gt;97</i>	<i>Not established</i>	<i>631-61-8</i>

**PHYSICAL DATA**

**Physical State:** *Solid*  
**Odour and Appearance:** *White crystals or granules, may have slight vinegar odour*  
**Odour Threshold (ppm):** *Not applicable, odour results from breakdown products, ammonia, acetic acid.*  
**Vapour Pressure (mm Hg):** *Not available*  
**Vapour Density (Air = 1):** *Not available*  
**Evaporation Rate:** *Not available*  
**Boiling Point (degrees C):** *Decomposes*  
**Melting Point (degrees C):** *114°C*  
**pH:** *7 (0.5M, aqueous)*  
**Specific Gravity:** *1.17 @ 20°C*  
**Coefficient of Water/Oil distribution:** *Not available*

**SHIPPING DESCRIPTION**

**UN:** *Not regulated*  
**T.D.G. Class:** *Not regulated*  
**Pkg. Group:** *Not regulated*

**REACTIVITY DATA**

**Chemical Stability:** *Stable, hygroscopic; absorbs moisture from air to become wet solid or solution. May slowly breakdown to release ammonia and acetic acid vapours.*  
**Incompatibility with other substances:** *May react vigorously with strong acids, releasing acetic acid vapours, or with strong bases releasing ammonia gas. May cause rapid decomposition of sodium hyperchlorite, producing heat and pressure. Very mildly corrosive to stainless steel and other metals.*

**Reactivity:** *Avoid generation of dust, heat and ignition sources.*

**Hazardous Decomposition Products:** *Ammonia, acetic acid*

**FIRE AND EXPLOSION DATA**

**Flammability:** *May be combustible if strongly heated. As with most organic compounds, fine dust dispersed in air in the presence of an ignition source is a potential dust explosion hazard.*

**Extinguishing Media:** *Water fog or spray, alcohol foam, dry chemical, carbon dioxide. Water will cause frothing which will blanket and smother the fire. Water spray can also be used to cool containers, prevent dust formation, flush chemical away from fire. Fight fire from upwind, from a safe distance. Firefighters must wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes.*

**Flash Point (Method Used):** *Not applicable, does not form vapour*

**Autoignition Temperature:** *Not applicable*

**Upper Flammable Limit (% by volume):** *Not applicable*

**Lower Flammable Limit (% by volume):** *Not applicable*

**Hazardous Combustion Products:** *Ammonia, acetic acid, CO<sub>x</sub>, NO<sub>x</sub>*

**Sensitivity to Impact:** *None identified*

**Sensitivity to Static discharge:** *As with most organic powders, mixtures of dust with air may be sensitive under certain conditions, when ignited by an electrostatic or other high-voltage spark, or other ignition source.*

**TOXICOLOGICAL PROPERTIES AND HEALTH DATA**

*To the best of our knowledge, the physical, chemical and toxicological properties of this substance have not yet been thoroughly investigated.*

**Toxicological Data:**

**LD<sub>50</sub>:** *Not available*

**LC<sub>50</sub>:** *Not available*

**Effects of Acute Exposure to Product:**

**Inhaled:** *Probably non-toxic. May be mildly irritating to upper respiratory tract, causing sore throat, coughing, shortness of breath.*

**In contact with skin:** *Concentrated solutions may be irritating. Dust is not expected to irritate. Probably not absorbed through skin.*

**In contact with eyes:** *Concentrated solutions may be irritating to eye tissue. Dust may cause irritation.*

**Ingested:** *Probably low in oral toxicity. Large doses may be irritating, causing nausea and vomiting. A small possibility exists that ingestion of ammonium salts may produce ammonia poisoning in persons with pre-existing liver dis-*

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ease, causing tremor, impaired motor performance, confusion, anxiety, eventual coma.

**Effects of Chronic Exposure to Product:**

Prolonged or repeated inhalation may cause temporary, reversible increase in mucous flow, which disappears when the exposure is discontinued. Prolonged or repeated skin exposure to dust or dilute solutions can probably cause redness, drying and cracking of the skin.

**Carcinogenicity:** Probably not carcinogenic

**Teratogenicity:** No human or animal information available. Not expected to be teratogenic.

**Reproductive Effects:** No human or animal information available. Not expected to be a reproductive hazard.

**Mutagenicity:** No human or in vivo information available

**Synergistic Products:** None known

**PREVENTIVE MEASURES**

**Engineering Controls:** Local exhaust ventilation recommended.

**Respiratory Protection:** Dust/mist mask. For conditions where dust or mist is present, to the maximum use specified by the respirator supplier, NIOSH/OSHA approved half-face high-efficiency dust/mist filter respirator, or NIOSH/OSHA approved full face-piece high-efficiency dust/mist filter respirator. Higher or unknown concentrations, or for fire or spill conditions, self-contained breathing apparatus, or full face-piece, positive-pressure supplied-air respirator.

**Eye Protection:** Chemical safety glasses. Do not wear contact lenses when working with chemicals.

**Skin Protection:** Wear natural or nitrile rubber, or neoprene gloves and other protective clothing sufficient to prevent contact.

**Other Personal Protective Equipment:** Safety shower and eye-wash fountain in work area.

**Leak and Spill Procedure:** Ventilate area. If dust is present, eliminate all sources of ignition and all combustible materials. Cleanup personnel must be thoroughly trained in the handling of hazardous materials and must wear protective equipment and clothing sufficient to prevent inhalation of mist or fumes, and contact with skin and eyes. Prevent from entering sewers or waterways. Mix with inert material and collect in a manner that does not raise dust. Wet if necessary. Contaminated absorbent may pose the same hazards as the chemical; treat with caution. Wash site of spillage thoroughly with water and detergent.

**Waste Disposal:** Follow all federal, provincial and local regulations for disposal.

**Handling Procedures and Equipment:** COMBUSTIBLE DUST. Workers using this chemical must be properly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. Avoid generating dust. If there is dust, keep away from heat, sparks, and all sources of ignition; avoid the accumulation of static charge, use anti-sparking tools and ground and bond equipment and containers. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Use good housekeeping to prevent accumulations of dust. Avoid contact with skin and eyes. Avoid inhalation. Wash thoroughly after handling. Empty containers may contain hazardous residues; treat with caution.

**Storage Requirements:** Store in suitable, labelled containers, in a cool, dry, well-ventilated area, out of direct sunlight. Keep containers tightly closed. Store away from incompati-

ble materials, and heat and ignition sources. Protect from damage and inspect frequently for signs of leaking.

**FIRST AID MEASURES****Specific Measures:**

**Eyes:** Immediately flush eyes with running water for five to ten (5-10) minutes, holding eyelids open during flushing, until no trace of chemical remains. If irritation persists, obtain medical attention.

**Skin:** Remove contaminated clothing. Wash affected areas with soap and water, until no trace of chemical remains. If irritation persists, obtain medical advice. Decontaminate clothing before reuse.

**Inhalation:** Move victim to fresh air. Give oxygen and get medical attention for any breathing difficulty.

**Ingestion:** If victim is alert and NOT convulsing, rinse mouth, give several glasses of water to drink to dilute. If discomfort occurs, or if a large amount has been ingested, get medical attention.

**REFERENCES USED**

CCINFO disc: Cheminfo, MSDS's

Sax, Lewis: Hawley's Condensed Chemical Dictionary, 11th ed., 1987

Sax: Dangerous Properties of Industrial Materials, 5th ed., 1979

Suppliers' Material Safety Data Sheets

**ADDITIONAL INFORMATION**

**Date Issued:** February 23, 1989

**Revision:** May 2011

**MSDS:** 1220-1, 1221-1

**Proposed Whmis Designation:** Not controlled. Not required to be updated every three years (WHMIS 1992, B-40, Section 29,2)

Prepared by: Caledon Laboratories Ltd. (905) 877-0101  
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