

**MATERIAL SAFETY DATA SHEET****SODIUM ACETATE**

PRODUCT CODE NUMBER(S): 7120-1, 7160-1

**PRODUCT IDENTIFICATION**

**Chemical Name and Synonyms:** *Sodium acetate trihydrate and anhydrous; Acetic acid, sodium salt trihydrate and anhydrous*

**Chemical Family:** *Salt of an organic acid*

**Chemical Formula:** *NaC<sub>2</sub>H<sub>3</sub>O<sub>2</sub> and NaC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>·3H<sub>2</sub>O*

**Product Use:** *Laboratory reagent*

**Manufacturer's Name and Address:**

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**HAZARDOUS INGREDIENTS OF MATERIALS**

<b>Ingredients</b>	<b>%</b>	<b>TLV Units</b>	<b>CAS No.</b>
<i>Sodium acetate anhydrous</i>	<i>&gt;99</i>	<i>Not established</i>	<i>127-09-3</i>
<i>OR</i>			
<i>Sodium acetate trihydrate</i>	<i>&gt;99</i>	<i>Not established</i>	<i>6131-90-4</i>

**PHYSICAL DATA**

**Physical State:** *Solid*

**Odour and Appearance:** *Colourless crystals (trihydrate) or granular powder (anhydrous), odourless*

**Odour Threshold (ppm):** *Not applicable*

**Vapour Pressure (mm Hg):** *Not applicable*

**Vapour Density (Air = 1):** *Not applicable*

**Evaporation Rate:** *Not applicable, does not form vapour*

**Boiling Point (degrees C):** *Not applicable*

**Melting Point (degrees C):** *123°C (loses water); 324°C (decomposes)*

**pH:** *7.5 - 9.2 (5% solution)*

**Specific Gravity:** *1.53 (anhydrous); 1.45 (trihydrate)*

**Coefficient of Water/Oil distribution:** *Not available*

**Solubility:** *76 gm/100 cc*

**SHIPPING DESCRIPTION**

**UN:** *Not regulated*

**T.D.G. Class:** *Not regulated*

**Pkg. Group:** *Not regulated*

**REACTIVITY DATA**

**Chemical Stability:** *Stable; decomposes when heated to form acetic acid vapours. Hygroscopic; absorbs moisture form air.*

**Incompatibility with other substances:** *Reacts vigorously with strong acids, releasing acetic acid fumes. Reacts violently or explosively with fluorine and potassiumnitrate. Mixtures with diketene may polymerize violently if heated. Mildly corrosive to most metals.*

**Reactivity:** *Above 128°C or on contact with acids, emits acetic acid vapours. Avoid excessive heat, generation of dust, moisture, ignition sources, all incompatible materials.*

**Hazardous Decomposition Products:** *Acetic acid vapours, CO<sub>x</sub>*

**FIRE AND EXPLOSION DATA**

**Flammability:** *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:** *Use extinguishing media appropriate to the surrounding fire. Water spray can 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.*

**Flash Point (Method Used):** *Not available*

**Autoignition Temperature:** *600°C*

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

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

**Hazardous Combustion Products:** *Acetic acid vapours, CO<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****Toxicological Data:**

**LD<sub>50</sub>:** *(oral, rat) 3530 mg/kg; (dermal, rabbit) >10 g/kg (anhydrous)*

**LC<sub>50</sub>:** *(rat) >30 gm/m<sup>3</sup>1h (anhydrous)*

**Effects of Acute Exposure to Product:**

**Inhaled:** *May be irritating to tissues of upper respiratory tract, causing coughing.*

**In contact with skin:** *Dusts or mists may cause mild irritation. Not absorbed through skin significantly.*

**In contact with eyes:** *Dusts or mists may cause mild irritation (based on animal testing; no human information available).*

**Ingested:** *Low in oral toxicity (based on animal testing; no human information available). Ingestion of doses of less than 1 g would not likely cause ill effects.*

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**Effects of Chronic Exposure to Product:**

Prolonged inhalation may cause minor, reversible irritation to the lungs, which disappears when exposure stops.

Prolonged or repeated exposure to sodium acetate may cause damage to kidneys and bladder.

**Carcinogenicity:** No information available. Not expected to be carcinogenic.

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

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

**Mutagenicity:** Some laboratory tests have shown mutagenic effects. Not mutagenic in in vitro tests using human blood cells

**Synergistic Products:** None known

**PREVENTIVE MEASURES**

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

**Respiratory Protection:** Dust/mist mask. For dusty conditions, to the maximum use specified by the respirator supplier, NIOSH approved half-face high-efficiency dust/mist filter respirator, or NIOSH 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:** Safety glasses.

**Skin Protection:** Rubber gloves. Other protective clothing sufficient to limit contact.

**Other Personal Protective Equipment:** Eye wash and safety shower in work area.

**Leak and Spill Procedure:** Ventilate area. Eliminate sources of ignition. Cleanup personnel should be trained in the handling of hazardous chemicals and should wear protective equipment and clothing sufficient to prevent inhalation of dust, mist or fumes, and contact with skin and eyes. Prevent from entering sewers or waterways. Collect in a manner that does not raise dust (wet if necessary), transfer carefully into container, and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

**Waste Disposal:** Dispose of in accordance with federal, provincial, and local regulations.

**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.

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

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

**Eyes:** Flush eyes thoroughly with gently running water, holding eyelids open while flushing, for five to ten (5-10) minutes, or until no trace of chemical remains. Get medical advice if irritation develops.

**Skin:** Remove contaminated clothing. Brush or wipe off dry material. Flush skin with plenty of running water until no evidence of chemical remains. If irritation develops get medical attention.

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

**Ingestion:** Rinse mouth thoroughly with water and give 2 to 4 glasses of water to drink to dilute. If victim feels unwell, or if a very large amount has been ingested, get medical attention.

**REFERENCES USED**

CCINFO disc: Cheminfo

Budavari: The Merck Index, 12th ed., 1997

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:** March 2011

**MSDS:** 7120-1, 7160-1

**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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