

# Mallinckrodt

## Material Safety Data

Emergency Phone Number: 314-982-5000

### ETHYL ACETATE

#### PRODUCT IDENTIFICATION:

Synonyms: Acetic acid, ethyl ester; Acetic ether; Acetoxyethane; Ethyl Acetic Ester

Formula CAS No.: 141-78-6

Molecular Weight: 88.11

Chemical Formula:  $\text{CH}_3\text{COOC}_2\text{H}_5$

Hazardous Ingredients: Not applicable.

#### PRECAUTIONARY MEASURES

**WARNING! FLAMMABLE LIQUID. HARMFUL IF SWALLOWED OR INHALED. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES EYE IRRITATION.**

Keep away from heat, sparks and flame.  
Keep container closed.  
Use with adequate ventilation.  
Avoid contact with eyes.  
Wash thoroughly after handling.

#### EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. In all cases call a physician.  
SEE SECTION 5.

DOT Hazard Class: Flammable Liquid

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

#### SECTION 1 Physical Data

Appearance: Colorless liquid.  
Odor: Pleasant, fruity.  
Solubility: 8.7 grams/100 g water @ 20°C (68°F).  
Boiling Point: 77°C (171°F).  
Melting Point: -83°C (-117°F).  
Specific Gravity: 0.9  
Vapor Density (Air = 1): 3.0  
Vapor Pressure (mm Hg): 76 @ 20°C (68°F).  
Evaporation Rate: (Butyl Acetate = 1):6

#### SECTION 2 Fire and Explosion Information

**Fire:**  
Flammable liquid!  
Flashpoint: -4.4°C (24°F) (Closed Cup).  
Autoignition temperature: 427°C (800°F)  
Flammable limits, in air,  
% by Volume: lcl: 2.2; ucl: 11.

**Explosion:**  
Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

**Fire Extinguishing Media:**  
Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

**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. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Vapors can flow along surfaces to distant ignition source and flash back.

#### SECTION 3 Reactivity Data

**Stability:**  
Stable under ordinary conditions of use and storage. Heat will contribute to instability. Slowly decomposed by moisture.

**Hazardous Decomposition Products:**  
Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**  
Will not occur.

**Incompatibilities:**  
Contact with nitrates, strong oxidizers, strong alkalis, or strong acids may cause fire and explosions. Will attack some forms of plastic, rubber, and coatings.

#### SECTION 4 Leak/Spill Disposal Information

Remove all sources of ignition. Ventilate area of leak or spill. Use non-sparking tools. Clean-up personnel require protective clothing and respiratory protection from vapors. Small spills may be absorbed on paper towels and evaporated in a fume hood. Allow enough time for fumes to clear hood, then ignite paper in a suitable location away from combustible materials. Contain and recover liquid for reclamation when possible. Larger spills and lot sizes can be collected as hazardous waste and atomized in a suitable RCRA approved combustion chamber, or absorbed with vermiculite, dry sand, earth or similar material for disposal as hazardous waste in a RCRA approved facility. Do not flush to sewer!

Reportable Quantity (RQ)(CWA/CERCLA) : 5000 lbs.

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0

Effective Date: 07-13-87 Supersedes 09-04-85

ETHYL ACETATE

**SECTION 5 Health Hazard Information**

**A. EXPOSURE / HEALTH EFFECTS**

**Inhalation:**

An irritant to the nose, throat, and upper respiratory tract. Exposure to high concentrations have a narcotic effect and may cause liver and kidney damage.

**Ingestion:**

Sore throat, abdominal pain and diarrhea may occur. Symptoms similar to those from inhalation exposure may also occur.

**Skin Contact:**

May cause irritation. Acts as a defatting agent.

**Eye Contact:**

Irritant. Overexposure may cause eye irritation. Splashes may cause painful conjunctival irritation.

**Chronic Exposure:**

Prolonged skin contact may cause dermatitis. Chronic poisoning in animals has been described as producing secondary anemia and leucocytosis. No chronic systemic effects have been reported in humans.

**Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

**B. FIRST AID**

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:**

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

**Skin Exposure:**

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Eye Exposure:**

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**C. TOXICITY DATA (RTECS, 1982)**

Inhalation rat LC50: 1600 ppm/8H. Oral rat LD50: 11300 mg/kg.

**SECTION 6 Occupational Control Measures**

**Airborne Exposure Limits:**

- OSHA Permissible Exposure Limit (PEL): 400 ppm.
- ACGIH Threshold Limit Value (TLV): 400 ppm.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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)**

If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn, in general, up to 10 times the TLV or the maximum use concentration specified by the respirator supplier, whichever is less. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

**Skin Protection:**

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure.

**Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

**SECTION 7 Storage and Special Information**

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from oxidizing materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment. Wear special protective equipment (Sec. 6) for maintenance break-in or where exposures may exceed established exposure levels.