

Material Safety Data Sheet

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Section I - Chemical Product And Company Identification

Product Name: Ethyl Acetate

CAS Number: 141-78-6

HBCC MSDS No. CE02100



HILL BROTHERS Chemical Co.

1675 NORTHMAIN STREET • ORANGE, CALIFORNIA 92867-3499
(714) 998-8800 • FAX: (714) 998-6310
<http://hillbrothers.com>

1675 No. Main Street, Orange, California 92867

Telephone No: 714-998-8800 | Outside Calif: 800-821-7234 | Chemtrec: 800-424-9300

Section II - Composition/Information On Ingredients

Chemical Name	CAS Number	%	Exposure Limits (TWAs) in Air		
			ACGIH TLV	OSHA PEL	STEL
Ethyl Acetate	141-78-6	99	400 ppm	400 ppm	N/A
Ethanol	64-17-5	1	1000 ppm	1000 ppm	N/A

Section III - Hazard Identification

Routes of Exposure: Ethyl acetate may affect the body either through ingestion, inhalation, or contact with the eyes and/or skin.

Summary of Acute Health Hazards

Ingestion: May cause severe gastrointestinal irritation. Symptoms may include nausea, vomiting and diarrhea.

Inhalation: Vapors may be irritating to the eyes, nose, and throat. High concentrations in air may cause narcosis, may cause liver and kidney damage, and central nervous system depression with symptoms including weakness, coughing, wheezing, laryngitis, shortness of breath, drowsiness, headache, dizziness, nausea, unconsciousness, and possibly death. Severe acute exposures may result in pulmonary edema with hemorrhage and hyperemia of the respiratory tract.

Skin: Prolonged or repeated contact may cause drying, cracking, or irritation of the skin.

Eyes: Contact with the eyes may result in painful but temporary irritation.

Summary of Chronic Health Hazards: Although no chronic systemic effects have been reported in humans, ethyl acetate is a defatting agent, and prolonged exposure may cause dermatitis.

Signs and Symptoms of Exposure: Headache, irritation of respiratory passages and eyes, dizziness and nausea, weakness, loss of consciousness.

Effects of Overexposure: Painful conjunctival irritation may occur from splashes in the eye. Breathing difficulties, dizziness, lightheadedness, weakness, drowsiness and unconsciousness may result from overexposure.

Medical Conditions Generally Aggravated by Exposure: N/A

Note to Physicians: N/A

Section IV - First Aid Measures

Ingestion: When ethyl acetate has been swallowed, GET MEDICAL ATTENTION IMMEDIATELY. If medical attention is not immediately available, get the afflicted person to vomit by having him touch the back of his throat with his finger or by giving him syrup of ipecac as directed on the package. Do not make an unconscious person vomit.

Inhalation: Move the exposed person to fresh air at once. If breathing stops, begin artificial respiration. Keep the affected person warm and at rest. GET MEDICAL ATTENTION IMMEDIATELY. (Caution: Administration of mouth-to-mouth resuscitation may expose the first aid provider to the chemical within the victim's lungs or vomit.)

Skin: Promptly flush the contaminated skin with water. If ethyl acetate soaks through the clothing, remove the clothing immediately and flush the skin with water. If there is skin irritation, GET MEDICAL ATTENTION.

Eyes: Flush with large quantities of water, lifting the lower and upper lids occasionally, for at least 15 minutes. GET MEDICAL ATTENTION as soon as possible. Contact lenses should not be worn when working with this chemical.

Section V - Fire Fighting Measures

Flash Point: (24°F) -4°C CC

Autoignition Temperature: 800°F (426°C)

Lower Explosive Limit: 2% by volume in air

Upper Explosive Limit: 11.5% by volume in air

Unusual Fire and Explosion Hazards: Flammable liquid. Vapors are heavier than air and may travel considerable distance to a source of ignition and flash back. Sealed containers may rupture when heated. Sensitive to static discharge.

Extinguishing Media: Alcohol foam, carbon dioxide, Dry chemical, or water spray (water may be ineffective).

Special Firefighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Water may be ineffective for fire fighting. Use water spray to keep fire-exposed containers cool. 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 VI - Accidental Release Measures

Proceed with caution. Restrict access to area. Keep unprotected personnel upwind of spill area. Keep sources of ignition and hot metal surfaces isolated from the spill. Ventilate the area, and avoid breathing the vapors. Wear a MSHA/NIOSH-approved respirator suitable for the situation. Dike and contain the spill with inert material (e.g. sand, earth). Transfer the saturated diking material to containers for disposal. If possible, clean up the spill area on a dry basis and then flush with plenty of water. Dispose of flush solutions as above.

Section VII - Handling and Storage

Material is classified as a Flammable Liquid. Keep away from heat, sparks, and flames. Keep container closed. Store in a cool, dry, well-ventilated area.

Other Precautions: Personnel should avoid inhalation of vapors and personal contact with ethyl acetate.

Section VIII - Exposure Controls/Personal Protection

Respiratory Protection: Use only MSHA/NIOSH-approved respirators. See SUPPLEMENTAL INFORMATION.

Respirator Selection: 1000 ppm: CCROVF 5000 ppm: GMOVc 10,000 ppm: GMOVfb/SAF/SCBAF Escape: GMOV/SCBA

Ventilation: General mechanical ventilation may be sufficient to keep product vapor concentrations within specified time-weighted TLV ranges (at least ten air changes per hour for good general room ventilation). If general ventilation proves inadequate to maintain safe vapor concentrations, supplemental local exhaust may be required.

Protective Clothing: Clothing should prevent repeated or prolonged skin contact with the product. This may include rubber boots, gloves, and other impervious and resistant clothing. Compatible substances may include butyl rubber, chlorinated polyethylene, polyurethane, polyvinyl alcohol, styrene-butadiene rubber, and nitrile-butadiene rubber.

Eye Protection: Wear safety glasses with side shields, chemical goggles and/or face shields.

Other Protective Clothing or Equipment: An eye wash and safety shower should be in close proximity.

Work/Hygienic Practices: All employees who handle this product should wash their hands before eating, smoking, or using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

Section IX - Physical and Chemical Properties

Physical State: Liquid

pH: N/A

Melting Point/Range: -83°C; -117°F

Boiling Point/Range: 77°C; 171°F

Appearance/Color/Odor: Clear liquid, with fruity odor.

Solubility in Water: 1ml/10ml water @ 25°C

Vapor Pressure (mmHg): 76 @ 20°C (68°F)

Specific Gravity (Water=1): 0.9

Molecular Weight: 88.11

Vapor Density (Air=1): 3.0

% Volatiles: > 99

Evaporation Rate (BuAc=1): 6

How to detect this compound: Charcoal adsorption, workup with CS₂, analysis by gas chromatography.

Section X - Stability and Reactivity

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

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Heat, fire, or sparks; contact with incompatible materials; runoff to sewers or water bodies; inhalation, ingestion, or physical contact. Will attack some forms of plastic, rubber, and coatings.

Materials to Avoid: Nitrates, strong oxidizers, strong alkalies, and strong acids.

Hazardous Decomposition Products: As with any other organic material, combustion will produce carbon dioxide and probably carbon monoxide.

Section XI - Toxicological Information

Ethyl acetate vapor is irritating to the eyes and respiratory passages of man at concentrations above 400 ppm. In animals it has a narcotic effect at concentrations of over 5000 ppm. Due to its irritating properties, employees will not voluntarily remain in such high concentrations. Repeated exposures of rabbits to 4450 ppm for 1 hour daily for 40 days resulted in anemia with leukocytosis, and damage to liver and kidneys. Animals exposed to lethal concentrations died with pulmonary edema and hemorrhage. This substance is a defatting agent, and prolonged exposure may cause irritation of the skin. Painful conjunctival irritation may occur from splashes in the eye. No chronic systemic effects have been reported in humans.

Section XII - Ecological Information

N/A

Section XIII - Disposal Considerations

Material used, spent or spilled is considered a Hazardous Waste [EPA Hazardous Waste Number F003 (40 CFR 261.21)], therefore it is to be disposed of in accordance with federal, state, county and local regulations.

Section XIV - Transport Information

DOT Proper Shipping Name: Ethyl Acetate

DOT Hazard Class/ I.D. No.: 3, UN1173, II

Section XV - Regulatory Information

CERCLA Reportable Quantity: 5000 Pounds (2270 Kilograms)

Immediately Dangerous to Life and Health (IDLH): 2,000 ppm [LEL]

RCRA Code: U112

Uniform Fire Code Rating: Class IB Flammable Liquid

NFPA Rating: Health - 1; Fire - 3; Reactivity - 0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Carcinogenicity Lists: No **NTP:** No **IARC Monograph:** No **OSHA Regulated:** Yes

Section XVI - Other Information

Synonyms/Common Names: Acetic Ether, Acetic Ester, Vinegar Naphtha, Ethyl Ester

Chemical Family/Type: Oxygenated Hydrocarbon

Sections Changed Since Last Revision: III, V, VIII, IX, XV

IMPORTANT! Read this MSDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This MSDS has been prepared according to the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The MSDS information is based on sources believed to be reliable.

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