

Burdick & Jackson***Material Safety Data Sheet*****Ethyl Acetate****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** Ethyl Acetate**OTHER/GENERIC NAMES:** Ethyl Ethanoate, Acetic Ether, Ethyl Acetic Ester, Vinegar Naptha**PRODUCT USE:** Solvent**MANUFACTURER:** Honeywell, Burdick & Jackson
1953 South Harvey Street
Muskegon, MI 49442**FOR MORE INFORMATION CALL:**(Monday-Friday, 8:00am-5:00pm)
1-800-368-0050**IN CASE OF EMERGENCY CALL:**(24 Hours/Day, 7 Days/Week)
1-800-707-4555 or Chemtrec 1-800-424-9300**2. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Ethyl Acetate	141-78-6	100

Trace impurities and additional material names not listed above may also appear in Section 15 toward the end of the MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Highly flammable. Clear, colorless volatile liquid. Fragrant fruity odor. Causes eye, skin, respiratory tract and mucous membrane irritation. Mildly toxic by inhalation and ingestion.

POTENTIAL HEALTH HAZARDS**SKIN:** Irritant. Dermatitis can occur through defatting of the skin.**EYES:** Irritant. Tearing and residual corneal damage can occur.**INHALATION:** Respiratory tract and mucous membrane irritation. High concentrations can result in central nervous system depression. Can have intoxicating effects, sore throat, headache, drowsiness and weakness.

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INGESTION: Irritant. Can cause sore throat, diarrhea, stomach pain, headache, drowsiness, intoxication and central nervous system depression, liver and kidney damage..

DELAYED EFFECTS: Can cause respiratory, eye, skin, liver and kidney damage especially if pre-existing conditions exist.

Ingredients found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section.			
ACGIH Classification: A4, Not classifiable as a human carcinogen.			

4. FIRST AID MEASURES

SKIN: Wash affected area with mild soap and water and rinse area until no evidence of chemical remains.

EYES: Rinse eyes with plenty of water or normal saline solution for at least 15 minutes.

INHALATION: Remove from exposure area to fresh air. If victim is not breathing administer artificial respiration according to your level of training and obtain professional medical assistance immediately.

INGESTION: Do not induce vomiting. Get medical assistance immediately.

ADVICE TO PHYSICIAN: No specific antidote. Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	24°F (-4°C)
FLASH POINT METHOD:	Closed Cup
AUTOIGNITION TEMPERATURE:	426°C
UPPER FLAME LIMIT (volume % in air):	11.5%
LOWER FLAME LIMIT (volume % in air):	2.0%
FLAME PROPAGATION RATE (solids):	Not Applicable
OSHA FLAMMABILITY CLASS:	IB

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, or alcohol foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Vapors are heavier than air and can be ignited by a flame or heat source remote to the location of a leak or spill. Containers may pressurize during fire conditions and rupture.

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SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Wear Self Contained Breathing Apparatus. Do not allow runoff from fire fighting efforts to reach waterway or sewer.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (Always wear recommended personal protective equipment.)

Eliminate sources of ignition. Isolate the spill area. Stop leak in a safe and practical manner. (If leak cannot be stopped easily and safely, advise trained emergency response personnel of the situation.) Using inert material (such as ground corncobs) dike the spilled solvent to prevent it from running into drains or waterways.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING: (Always wear recommended personal protective equipment.)

Flammable liquid and vapors. Keep container closed. Do not breathe vapors. Avoid contact with skin, eyes and mucous membranes. Keep away from heat, sparks and flame. Electrically bond and ground all handling equipment. Protective neoprene or rubber gloves and apron are recommended.

STORAGE RECOMMENDATIONS:

Store tightly closed in a cool place away from all sources of ignition in an area designed for storage of flammable liquids. Protect from temperature extremes and sunlight, and store away from incompatible substances and in accordance with 29 CFR 1910.106. Avoid acids, bases, oxidizers and explosives. Prohibit smoking.

Flammable liquid and vapor. Once liquid solvent has been completely dispensed, containers which appear "empty" should be handled in the same manner as when they were "full" of liquid solvent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

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PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION:

Where liquid contact is possible impervious coveralls are recommended. To minimize the possibility in other handling and storage operations, wear appropriate PPE to include chemical resistant gloves, boots and apron.

EYE PROTECTION:

Wear protective eyeglasses (with side shields), chemical goggles alone or in conjunction with full face shield. Follow OSHA regulation 29CFR 1910.133. (Contact lenses are not protective devices.)

RESPIRATORY PROTECTION:

Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations *29 CFR 1910.134* and, if necessary, wear a MSHA/NIOSH-approved respirator. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

ADDITIONAL RECOMMENDATIONS:

This material should be used in close proximity to eyewash station and safety shower. Use appropriate personal hygiene after handling this material. Do not smoke in the vicinity of flammable materials.

EXPOSURE GUIDELINES

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
Ethyl Acetate	400 ppm	400 ppm	None

- * = Limit established by Honeywell International, Inc.
- ** = Workplace Environmental Exposure Level (AIHA).
- *** = Biological Exposure Index (ACGIH).

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS: None

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear, Colorless
PHYSICAL STATE:	Liquid
MOLECULAR WEIGHT:	88.11
CHEMICAL FORMULA:	C ₄ H ₈ O ₂
ODOR:	Fragrant, fruity odor Threshold: 50 ppm
SPECIFIC GRAVITY (water = 1.0):	0.901
SOLUBILITY IN WATER (weight %):	~9%

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pH:	Not Applicable		
BOILING POINT:	171°F (77°C)		
MELTING POINT:	-119°F (-84°C)		
VAPOR PRESSURE:	73 mm Hg @ 20 °C		
VAPOR DENSITY (air = 1.0):	3		
EVAPORATION RATE:	~5	COMPARED TO:	Butyl Acetate = 1
% VOLATILES:	~100%		
FLASH POINT:	24°F		

(Flash point method and additional flammability data are found in Section 5.)

10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):

Material is stable at room temperature in closed containers under normal storage and handling conditions. Decomposes slowly in the presence of moisture.

INCOMPATIBILITIES:

Strong oxidizers, acids, bases and nitrates.

HAZARDOUS DECOMPOSITION PRODUCTS:

Acrid smoke and irritating fumes. Incomplete combustion can produce carbon monoxide and other hazardous gases.

HAZARDOUS POLYMERIZATION:

Not expected to occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Oral-Rat LD50:5620 mg/kg	Oral-Mouse LD50:4100 mg/kg
Inhalation-Rat LC50:1600 ppm/8H	Intraperitoneal-Mouse LD50:709 mg/kg
Subcutaneous-Cat, adult LD50:3000 mg/kg	Oral-Rabbit, adult LD50:4935 mg/kg
Oral-Guinea Pig, adult LD50:5500 mg/kg	

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:

Lab. animals fed 1,000 mg/kg for 1 month showed no effects (A1); chronic poisoning evidenced by secondary anemia, leucocytosis, cloudy swelling, and fatty degeneration of the viscera. Slight toxin with chronic exposure via all routes; chronic irritant.

OTHER DATA: None.

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12. ECOLOGICAL INFORMATION

LC50 Heteropneustes fossilis (common Indian catfish) 212.5 ppm/96 hr (conditions of bioassay not specified) [R19];
LC50 Pimephales promelas (fathead minnow) 230 mg/L/96 hr (confidence limit 220-250 mg/L). Contamination of chemical in the control tanks-possibly due to volatility of the compound (conditions of bioassay not specified) [R20];
EC50 Pimephales promelas (fathead minnow) 220 mg/L/96 hr (confidence limit 210-240 mg/L). Contamination of chemical in the control tanks-possibly due to volatility of the compound. Affected fish lost equilibrium prior to death (conditions of bioassay not specified). R20]

13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? Yes

If yes, the RCRA ID number is: U112, F003& D001 if applicable.

OTHER DISPOSAL CONSIDERATIONS:

Dispose of material in accordance with all applicable local, state, and federal regulations.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

US DOT PROPER SHIPPING NAME:	Ethyl Acetate
US DOT HAZARD CLASS:	3 (Flammable Liquid)
US DOT ID NUMBER:	UN1173
US DOT PACKING GROUP:	II
NA EMERGENCY RESPONSE GUIDE:	129

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: Listed.

OTHER TSCA ISSUES: Subject to TSCA 12(b) export notification requirements.

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SARA TITLE III/CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
Ethyl Acetate	5000 lbs	Not Listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: Acute, Fire

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

<u>INGREDIENT NAME</u>	<u>COMMENT</u>
No ingredcients listed in this section.	

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<u>INGREDIENT NAME</u>	<u>WEIGHT %</u>	<u>COMMENT</u>
No ingredients listed in this section.		

ADDITIONAL REGULATORY INFORMATION: Additional regulatory related information may exist. Contact Honeywell if you have questions regarding your application or use of this product.

WHMIS CLASSIFICATION (CANADA):

Class B, Division 2

FOREIGN INVENTORY STATUS: Listed on the following foreign inventories: Australia, Canada, China, the European Union, Japan, Korea and the Philippines

16. OTHER INFORMATION

CURRENT ISSUE DATE: March, 2004

PREVIOUS ISSUE DATE: June, 2000

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Section 3 added details to the emergency overview and health hazards statements

Section 7 added to normal handling and storage recommendations

Section 10 revised incompatibility and products of decomposition statement

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Section 15 updated foreign inventory status

Section 16 changed NFPA Classification Reactivity label to Instability

NFPA Classification

Health:	1
Flammability:	3
Instability:	0