

MATERIAL SAFETY DATA SHEET

ETHYL ACETATE, REAGENT GRADE
CAROLINA BIOLOGICAL

Revised: 09/05/00
Replaces: None
Printed: 04/08/06

PRODUCT IDENTIFICATION

PRODUCT NAME: ETHYL ACETATE
COMMON SYNONYMS: ACETIC ACID ETHYL ESTER; ETHYL ETHANOATE; ETHYL ACETIC
ESTER
CHEMICAL FAMILY: ESTERS
FORMULA: CH₃COOC₂H₅
FORMULA WT.: 88.11
CAS NO.: 141-78-6
NIOSH/RTECS NO.: AH5425000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: 5541,9282,9279,9260,9284,9280,9281

CHEMTREC # (800) 424-9300 NATIONAL RESPONSE CENTER # (800) 424-8802
J.T.BAKER INC. 222 RED SCHOOL LANE PHILLIPSBURG, NJ 08865 24-HOUR
EMERGENCY TELEPHONE -- (201) 859-2151

EFFECTIVE: 01/04/94 ISSUED: 04/08/95
REVISION #05

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH	-	2	MODERATE
FLAMMABILITY	-	4	EXTREME (FLAMMABLE)
REACTIVITY	-	0	NONE
CONTACT	-	2	MODERATE

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

U.S. PRECAUTIONARY LABELING

DANGER

EXTREMELY FLAMMABLE. CAUSES IRRITATION. HARMFUL IF SWALLOWED OR INHALED.
KEEP AWAY FROM HEAT, SPARKS, FLAME. AVOID CONTACT WITH EYES, SKIN,
CLOTHING.
AVOID BREATHING VAPOR. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH
ADEQUATE
VENTILATION. WASH THOROUGHLY AFTER HANDLING. IN CASE OF FIRE, USE
ALCOHOL
FOAM, DRY CHEMICAL, CARBON DIOXIDE - WATER MAY BE INEFFECTIVE. FLUSH
SPILL
AREA WITH WATER SPRAY.

INTERNATIONAL LABELING

HIGHLY FLAMMABLE.

PRECAUTIONARY LABELING (CONTINUED)

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. DO NOT BREATHE VAPOR.

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DO NOT
EMPTY INTO DRAINS. TAKE PRECAUTIONARY MEASURES AGAINST STATIC
DISCHARGES.

SAF-T-DATA* STORAGE COLOR CODE: RED (FLAMMABLE)

COMPONENTS

COMPONENT ACGIH/TLV	CAS NO.	WEIGHT %	OSHA/PEL
ETHYL ACETATE PPM	141-78-6	99-100	400 PPM 400

PHYSICAL DATA

BOILING POINT: 77 C (170 F)
(AT 760 MM HG) VAPOR PRESSURE (MMHG): 76
(20 C)

MELTING POINT: -84 C (-119 F)
(AT 760 MM HG) VAPOR DENSITY (AIR=1): 3.0

SPECIFIC GRAVITY: 0.90
(H2O=1) EVAPORATION RATE: 4.1
(BUTYL ACETATE = 1)

SOLUBILITY(H2O): MODERATE (1-10%) % VOLATILES BY VOLUME: 100
(21 C)

PH: N/A

ODOR THRESHOLD (P.P.M.): .16

PHYSICAL STATE: LIQUID

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: CLEAR, COLORLESS LIQUID. FRUITY ODOR.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): -4 C (24 F) NFPA 704M RATING: 1-3-0

AUTOIGNITION TEMPERATURE: 484 C (905 F)

FLAMMABLE LIMITS: UPPER - 11.0 % LOWER - 2.2 %

FIRE EXTINGUISHING MEDIA

USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE. (WATER MAY BE
INEFFECTIVE.)

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-
CONTAINED
BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE
PRESSURE
MODE. MOVE CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK.
USE
WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.

UNUSUAL FIRE & EXPLOSION HAZARDS

VAPORS MAY FLOW ALONG SURFACES TO DISTANT IGNITION SOURCES AND FLASH

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BACK.

CLOSED CONTAINERS EXPOSED TO HEAT MAY EXPLODE. CONTACT WITH STRONG
OXIDIZERS MAY CAUSE FIRE.

TOXIC GASES PRODUCED

CARBON MONOXIDE, CARBON DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT

NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE

YES.

HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 1400 MG/M (400 PPM)

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): 1400 MG/M (400 PPM)

TOXICITY OF COMPONENTS

ORAL RAT LD50 FOR ETHYL ACETATE G/KG	5.6
INHALATION-8HR RAT LC50 FOR ETHYL ACETATE PPM	1600
INTRAPERITONEAL MOUSE LD50 FOR ETHYL ACETATE MG/KG	709

CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

CARCINOGENICITY

NONE IDENTIFIED.

REPRODUCTIVE EFFECTS

NONE IDENTIFIED.

EFFECTS OF OVEREXPOSURE

INHALATION: IRRITATION OF NOSE AND THROAT, HEADACHE, NAUSEA,
VOMITING, DIZZINESS, NARCOSIS, RESPIRATORY FAILURE,
LOW BLOOD PRESSURE, CENTRAL NERVOUS SYSTEM DEPRESSION

SKIN CONTACT: DERMATITIS

EYE CONTACT: IRRITATION

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: HEADACHE, NAUSEA, VOMITING, DIZZINESS,
GASTROINTESTINAL IRRITATION

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CHRONIC EFFECTS: DAMAGE TO LIVER, KIDNEYS, HEART, LUNGS, CENTRAL
NERVOUS
SYSTEM DEPRESSION

TARGET ORGANS

EYES, SKIN, RESPIRATORY SYSTEM, LIVER, KIDNEYS, LUNGS, HEART,
CENTRAL
NERVOUS SYSTEM

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

RESPIRATORY SYSTEM DISEASE, SKIN DISORDERS, ANEMIA

PRIMARY ROUTES OF ENTRY

INHALATION, INGESTION, EYE CONTACT, SKIN CONTACT

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: CALL A PHYSICIAN. IF SWALLOWED, IF CONSCIOUS,
IMMEDIATELY
INDUCE VOMITING.

INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING,
GIVE
ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT,
GIVE
OXYGEN. PROMPT ACTION IS ESSENTIAL.

SKIN CONTACT: IN CASE OF CONTACT, FLUSH SKIN WITH WATER.

EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY
OF
WATER FOR AT LEAST 15 MINUTES.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: YES CHRONIC: YES FLAMMABILITY: YES PRESSURE: NO REACTIVITY: NO

EXTREMELY HAZARDOUS SUBSTANCE: NO

CERCLA HAZARDOUS SUBSTANCE: YES CONTAINS ACETIC ACID, ETHYL ESTER
(RQ =
5000 LBS)

SARA 313 TOXIC CHEMICALS: NO
TSCA INVENTORY: YES

REACTIVITY DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT
OCCUR

CONDITIONS TO AVOID: HEAT, FLAME, OTHER SOURCES OF IGNITION

INCOMPATIBLES: STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG
BASES,

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ALKALIES, STRONG REDUCING AGENTS

DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE

SPILL & DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. SHUT

OFF IGNITION SOURCES; NO FLARES, SMOKING OR FLAMES IN AREA. STOP LEAK IF

YOU CAN DO SO WITHOUT RISK. USE WATER SPRAY TO REDUCE VAPORS. TAKE UP

WITH SAND OR OTHER NON-COMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CONTAINER FOR LATER DISPOSAL. FLUSH AREA WITH WATER.

J. T. BAKER SOLUSORB(R) SOLVENT ADSORBENT IS RECOMMENDED FOR SPILLS OF THIS PRODUCT.

DISPOSAL PROCEDURE

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

EPA HAZARDOUS WASTE NUMBER: U112 (TOXIC WASTE)

INDUSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV REQUIREMENTS.

RESPIRATORY PROTECTION: RESPIRATORY PROTECTION REQUIRED IF AIRBORNE CONCENTRATION EXCEEDS TLV. AT CONCENTRATIONS UP TO 1000 PPM, A CHEMICAL CARTRIDGE RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE IS RECOMMENDED. ABOVE THIS LEVEL, A SELF-CONTAINED BREATHING APPARATUS IS RECOMMENDED.

EYE/SKIN PROTECTION: SAFETY GOGGLES AND FACE SHIELD, UNIFORM, PROTECTIVE SUIT, RUBBER GLOVES ARE RECOMMENDED.

STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: RED (FLAMMABLE)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL, DRY, WELL-VENTILATED, FLAMMABLE LIQUID STORAGE AREA.

SPECIAL PRECAUTIONS

BOND AND GROUND CONTAINERS WHEN TRANSFERRING LIQUID.

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TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: ETHYL ACETATE
HAZARD CLASS: 3
UN/NA: UN1173 REPORTABLE QUANTITY: 5000 LBS. PACKAGING GROUP: II
LABELS: 3 FLAMMABLE LIQUID
REGULATORY REFERENCES: 49CFR 172.101

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: ETHYL ACETATE
HAZARD CLASS: 3.2 I.M.O. PAGE: 3220
UN: UN1173 MARINE POLLUTANTS: NO PACKAGING GROUP: II
LABELS: 3 FLAMMABLE LIQUID
REGULATORY REFERENCES: 49CFR PART 176; IMDG CODE

AIR (I.C.A.O.)

PROPER SHIPPING NAME: ETHYL ACETATE
HAZARD CLASS: 3
UN: UN1173 PACKAGING GROUP: II
LABELS: 3 FLAMMABLE LIQUID
REGULATORY REFERENCES: 49CFR PART 175; ICAO=== WE BELIEVE THE
TRANSPORTATION

FACTUAL AND

MEANT AS

PRODUCT

BE

THE

CONSIDERATION,

IN

LOCAL

49CFR

TRAINING 49

DATA AND REFERENCES CONTAINED HEREIN TO BE
THE OPINION OF QUALIFIED EXPERTS. THE DATA IS
A GUIDE TO THE OVERALL CLASSIFICATION OF THE
AND IS NOT PACKAGE SIZE SPECIFIC, NOR SHOULD IT
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INFORMATION MUST BE DETERMINED BY THE USER TO BE
ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND
LAWS AND REGULATIONS. SEE SHIPPER REQUIREMENTS
171.2, CERTIFICATION 172.204, AND EMPLOYEE
CFR 173.1(B).

U.S. CUSTOMS HARMONIZATION NUMBER: 29153100003

NOTE: WHEN HANDLING LIQUID PRODUCTS, SECONDARY PROTECTIVE CONTAINERS

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