



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300 or 202-483-7616

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: ETHYL ETHER
This MSDS is valid for all grades and catalog #'s

General Information

Company's Name: PHARMCO PRODUCTS, INC.
Company's Street: 58 VALE RD.
Company's City: BROOKFIELD
Company's State: CT
Company's Zip Code: 06804
Company's Emerg Ph #: (203) 740-3471
Company's Info Ph #: (203) 740-3471

Date MSDS Revised: Nishant-8/23/99
Safety Data Review Date: 8/23/99
Preparer's Company: PHARMCO PRODUCTS, INC.
Preparer's St Or P. O. Box: 58 VALE RD.
Preparer's City: BROOKFIELD
Preparer's State: CT
Preparer's Zip Code: 06804

Ingredients/Identity Information

Proprietary: NO
Ingredient: ETHYL ETHER
Ingredient Sequence Number: 01
Percent: 100
NIOSH (RTECS) Number: K15775000

CAS Number: 60-29-7
OSHA PEL: 400 PPM
ACGIH TLV: 400 PPM
Other Recommended Limit: N/K (FP N)

Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS LIQUID WITH A SWEET, PUNGENT ODOR.
Boiling Point: 94F/34C
Melting Point: N/K (FP N)
Vapor Pressure (MM Hg/70 F): 442
Vapor Density (Air=1): 2.6
Specific Gravity: 0.713

Decomposition Temperature: N/K (FP N)
Evaporation Rate And Ref: >10 BUTYL ACETATE=1
Solubility In Water: 6.89% AT 20 C
Percent Volatiles By Volume: 100
Corrosion Rate (IPY): N/K FP N

Fire and Explosion Hazard Data

Flash Point: -49 F (-45 C)
Flash Point Method: TCC

Lower Explosive Limit: 1.85
Upper Explosive Limit: 48
Extinguishing Media: DIOXIDE, DRY CHEMICAL OR FOAM
Special Fire Fighting Proc: USE NIOSH/MSHA APVD SCBA + FULL PROT EQPT (FP N).HEAT WILL BUILD PRESS + MAY RUPTURE CLOSED STORAGE CNTNR.COOL CNTNR W/H*20 SPRAY.TREAT AS FLAMMABLE GAS.
Unusual Fire And Expl Hazrds: EXTM VOLATILE + FLAMMABLE.CAN FORM HEAT SENS PEROXIDES WHICH MAY EXPLD ON CONC OR EVAP.KEEP AREA COOLED BLW 320F (160C) TO EXTINGUISH AN ETHER FIRE+PVNT REIGNIT

Reactivity Data

Stability: NO
Cond To Avoid (Stability): HEAT, SPARKS, OPEN FLAME, OPEN CONTAINERS, AND POOR VENTILATION.
Materials To Avoid: OXIDIZING AGENTS + STRONG ACIDS.
Hazardous Decomp Products: INCOMPL COMB CAN GENERATE CO + OTHER TOXIC VAPORS.XPL PEROXIDES CAN FORM AFT STAND OR UPON EXP TO AIR/DIRECT SUNLIGHT.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): N/K (FP N)

Health Hazard Data

LD50-LC50 Mixture: N/K (FP N)
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: INHAL:EXP CAN CAUSE HDCH, NAUS, VOMIT, LOSS OF CONSCIOUS, + IN VERY HIGH CONC, DEATH DUE TO RESP PARAL.EYE:LIQ + HIGH VAPOR CONC CAN CAUSE IRRIT.SKIN:PRLNG/RPTD SKIN CONT CAN CAUSE IRRIT + DERMAT THROUGH DEFAT OF SKIN.INGESTION:SYMPTON INFORMATION IS INADEQUATE/ UNKNOWN. CONC IMMED DANGER TO HEALTH:OSHA/NIOSH:19,000 PPM
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: POSITIVE MUTAGEN(RTEC) (MFR).ETHANOL IS A SUSPECTED CARCINOGEN + TERATOGEN (NIOSH).(MFR)
Signs/Symptoms Of Overexp: ETHYL ETHER IS A MILD EYE + MUCOUS MEMBRANE IRRITANT, PRIMARY SKIN IRRITANT, + CENTRAL NERVOUS SYSTEM DEPRESSANT.ACUTE EXPOSURE CAN CAUSE ANESTHETIC EFFECTS SUCH AS VOMITING,EXCITEMENT, UNCONSCIOUSNESS, COMA, RESPIRATORY PARALYSIS, + DEATH.CHRONIC EXPOSURES MAY PRODUCE CENTRAL NERVOUS SYSTEM DISTURBANCES.
Med Cond Aggravated By Exp: PRECLUDE FROM EXPOSURE THOSE INDIVIDUALS SUSCEPTIBLE TO DERMATITIS.
Emergency/First Aid Proc: INHAL:IMMED RMV TO FRESH AIR.IF NOT BRTHING, ADMIN MOUTH-TO-MOUTH RESCUE BRTHING.IF NO PULSE ADMIN CPR.CONT MD IMMED. EYE:RINSE W/COPIOUS AMT H*20 FOR AT LEAST 15 MIN.GET EMER MED ASST.SKIN:FL THOROUGH FOR AT LEAST 15 MIN.WASH AFFECT SKIN W/SOAP+H*20.RMV CONTAM CLTHG + SHOES.WASH CLTHG BFR RE-USE + DISCARD SHOES.GET EMER MED ASST.INGEST:CALL LCL POISON CONTROL CENTER FOR ASST.CONT MD IMMED(SUPP DAT)

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Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: PROT FROM IGN.WEAR PROT CLTHG + USE APVD
RSPTR EQPT.ABSORB SPILL MATL IN AN ABSORB RECM FOR SOLVENT SPILL + RMV TO
SAFE LOCATION FOR DISPOSAL BY APPROVED METHODS.IF RELEASED TO THE
ENVIRONMENT, COMPLY W/ALL REGULATORY NOTIFICATION REQUIREMENTS.

Neutralizing Agent: N/K (FP N)

Waste Disposal Method: DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE
+ LOCAL REGULATIONS (FP N). DISPOSE OF ETHYL ETHER AS AN EPA HAZARDOUS
WASTE. HAZARDOUS WASTE NUMBERS:U117 (IGNITABLE); D001 (IGNITABLE).

Precautions-Handling/Storing: ETHYL ETHER SHOULD BE PROT FR TEMP EXTM +
DIR SUNLIGHT.PROPER STORAGE OF ETHYL ETHER MUST BE DETERMINE BASED ON
OTHER

MATL STORED + THEIR(SEE OT PREC)

Other Precautions: HAZ + POT CHEM INCOMPATIBILITY.IN GENL,ETHYL ETHER
PERIOD CHECK FOR PEROXIDES IN STORE MATL + PRIOR TO USE,ESP BFR CONC OR
HEAT.GND + BOND MET CNTNR TO MIN STATIC SPARKS

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Control Measures

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Respiratory Protection: USE NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR
EXPOSURE OF CONCERN (FP N). USE APVD RSPTR EQPT. FOLLOW NIOSH + EQPT
MANUFACTURERS RECM TO DETERMINE APPROPRIATE EQPT (AIR-PURIFYING,AIR-
SUPPLIED, OR SELF CONTAINED BREATHING APPARATUS).

Ventilation: ADEQUATE VENT REQD TO PROT PERS FR EXPSR TO CHEM VAPORS
EXCEED PEL + TO MIN FIRE HAZ.CHOICE OF VENT EQPT,LCL (SUPP DATA)

Protective Gloves: CHEM RESIST: NEOPRENE OR BUNA-N

Eye Protection: CHEM WORK GOGGLES,FACESHLD OPTIONAL FP N

Other Protective Equipment: EMERGENCY EYE WASH FOUNTAINS + SAFETY SHOWERS
SHOULD BE AVAILABLE IN THE VICINITY OF ANY POTENTIAL EXPOSRE.PROT CLTHG.

Work Hygienic Practices: INDIVIDUALS WHO ARE ACUTELY + SPECIFICALLY
SENSITIVE TO ETHYL ETHER MAY REQUIRE ADDITIONAL PROTECTIVE EQUIPMENT.

Suppl. Safety & Health Data: PH + CARC:FP N.HAZ POLY OCCUR:NOT EXPECTED TO
OCCUR(MFR).FIRST AID:NEVER INDUCE VOMIT OR GIVE ANYTHING BY MOUTH TO VICTIM
UNCON OR HAVING CONVULSIONS. VENTILATION:OR GENL, WILL DEPEND ON THE
CONDITIONS OF USE, QUANTITY OF MATL, + OTHER OPERATE PARAMETERS.CONTAINER
SIZE:5 LB CAN

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Transportation Data

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Trans Data Review Date: 84152
DOT PSN Code: EYL
DOT Proper Shipping Name: DIETHYL ETHER
OR ETHYL ETHER
DOT Class: 3
DOT ID Number: UN1155
DOT Pack Group: I
DOT Label: FLAMMABLE LIQUID
IMO PSN Code: GXB
IMO Proper Shipping Name: ETHYL ETHER
IMO Regulations Page Number: SEE 3117

IMO UN Number: 1155
IMO UN Class: 3.1
IMO Subsidiary Risk Label: -
IATA PSN Code: JJB
IATA UN ID Number: 1155
IATA Proper Shipping Name: DIETHYL
ETHER *
IATA UN Class: 3
IATA Label: FLAMMABLE LIQUID
AFI PSN Code: JJB

AFI Prop. Shipping Name: DIETHYL ETHER
OR ETHYL ETHER
AFI Class: 3
AFI ID Number: UN1155

AFI Pack Group: I
AFI Label: FLAMMABLE LIQUID
AFI Basic Pac Ref: 7-6

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Disposal Data

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Refer to applicable regional, state and federal codes.

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Label Data

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Special Hazard Precautions: MAY BE POISONOUS IF INHALED OR ABSORBED
THROUGH SKIN. VAPORS MAY CAUSE DIZZINESS OR SUFFOCATION. CONTACT MAY
IRRITATE OR BURN SKIN AND EYES. FIRE MAY PRODUCE IRRITATING OR POISONOUS
GASES. RUNOFF FROM FIRE CONTROL OR DILUTION WATER MAY CAUSE POLLUTION.

The information contained herein is based on data considered to be accurate. However, no warranty is
expressed regarding the accuracy of these data or the results to be obtained from the use thereof. It is the
user's obligation to determine the conditions of safe use of the product.