

An ISO 9001:2000
Certified Company



THE POWER OF THREE³

PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

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

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: DIETHYLENE GLYCOL MONOMETHYL ETHER, GLYCOL ETHER DM
This MSDS is valid for all grades and catalog numbers

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 #: (800) 424-9300

Chemtrec

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

1101 Isaac Shelby Drive

Shelbyville, KY 40065

Phone (502) 633-0650

Fax (502) 633-0685

Ingredients/Identity Information

Proprietary: NO

Ingredient: ETHYLENE OXIDE (SARA III)

Ingredient Sequence Number: 01

Percent: TRACE

NIOSH (RTECS) Number: KX2450000

CAS Number: 75-21-8

OSHA PEL: 1 PPM; SEE 1910.1047

ACGIH TLV: 1 PPM, A2; 9192

Other Recommended Limit: N/K (FP N/ORNL)

Proprietary: NO

Ingredient: DIETHYLENE GLYCOL
MONOMETHYL ETHER

Ingredient Sequence Number: 02

Percent: >99

NIOSH (RTECS) Number: KL6125000

CAS Number: 111-77-3

OSHA PEL: N/K (FP N/ORNL)

ACGIH TLV: N/K (FP N/ORNL)

Other Recommended Limit: N/K (FP N/ORNL)

Proprietary: NO

Ingredient: EXPLAN OF CARC:ANIM CARC
(NTP,1989).ACGIH A2=SUSP HUM CARC

(1990).KNOWN HUM CARC

(OSHA,1985).KNOWN TO CAUSE (SEE ING
4)

Ingredient Sequence Number: 03

NIOSH (RTECS) Number: 9999999ZZ

OSHA PEL: N/K (FP N/ORNL)

ACGIH TLV: N/K (FP N/ORNL)

Other Recommended Limit: N/K (FP N/ORNL)

Proprietary: NO
Ingredient: EXPLAN OF CARCIN:CANCER (CAL PROP 65,1987).
Ingredient Sequence Number: 04
NIOSH (RTECS) Number: 999999ZZ
OSHA PEL: N/K (FP N/ORNL)
ACGIH TLV: N/K (FP N/ORNL)
Other Recommended Limit: N/K (FP N/ORNL)

Physical/Chemical Characteristics

Appearance And Odor: COLORLESS LIQUID;MILD ODOR.
Boiling Point: 381F,194C
Melting Point: -12F,-24C
Vapor Pressure (MM Hg/70 F): 0.1 MMHG
Vapor Density (Air=1): 4.14,AIR=1
Specific Gravity: 1.023 (WATER=1)
Decomposition Temperature: N/K (FP N)
Evaporation Rate And Ref: <1 (BUTYL ACETATE=1)
Solubility In Water: 100%

Fire and Explosion Hazard Data

Flash Point: 188F,87C	EQUIPMENT (FP N).USE WATER SPRAY TO
Flash Point Method: TCC	COOL NEARBY CONTAINERS AND
Lower Explosive Limit: 1.38%	STRUCTURES
Upper Explosive Limit: 22.7%	EXPOSED TO FIRE.
Extinguishing Media: USE CARBON	Unusual Fire And Expl Hazrds:
DIOXIDE,ALCOHOL FOAM,DRY	NONE.HAZARDOUS DECOMPOSITION
CHEMICAL,WATER	PRODUCTS:MAY
SPRAY.	LIBERATE CARBON MONOXIDE,CARBON
Special Fire Fighting Proc: USE NIOSH/MSHA	DIOXIDE,AND UNIDENTIFIED ORGANIC
APPROVED SCBA & FULL PROTECTIVE	COMPOUNDS
	IN BLACK SMOKE.

Reactivity Data

Stability: YES	CARBON MONOXIDE,CARBON DIOXIDE,
Cond To Avoid (Stability):	AND UNIDENTIFIED ORGANIC
HEAT,SPARKS,AND OPEN FLAMES.	COMPOUNDS IN BLACK SMOKE.
Materials To Avoid: ALKALIS,OXIDIZING	Hazardous Poly Occur: NO
MATERIALS,WATER,AND MOIST AIR.	Conditions To Avoid (Poly): WILL NOT
Hazardous Decomp Products: MAY LIBERATE	OCCUR.

Health Hazard Data

LD50-LC50 Mixture: LD50 RAT ORAL 9210 MG/KG,(SEE SUPP DATA)
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: ETHYLENE OXIDE:KNOWN TO CAUSE REPRODUCTIVE
DISORDERS (FEMALE) (CAL PROP 65,1987).INGESTION MAY CAUSE KIDNEY INJURY.
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: ETHYLENE OXIDE (TRACE):LTD EVID FOR CARC IN

HUMANS;SUFF EVID FOR CARC IN ANIM (IARC,1987).SUSP HUMAN/KNOWN (SEE ING 3)
Signs/Symptoms Of Overexp: EYES:LIQUID AND MIST MAY IRRITATE AND MAY BE
PAINFUL.SKIN:IRRITATING AFTER PROLONGED CONTACT.MAY BE ABSORBED THROUGH
SKIN BUT VERY LOW IN TOXICITY.INGESTION:SLIGHTLY TOXIC.MAY CAUSE NAUSEA AND
NARCOSIS.MAY CAUSE KIDNEY INJURY.INHALATION:MAY CAUSE LETHARGY AND
DIARRHEA.

Med Cond Aggravated By Exp: NONE REPORTED

Emergency/First Aid Proc: EYES:IMMED FLUSH W/ LOTS OF RUNNING WATER FOR AT
LEAST 15 MIN,LIFT LIDS OCCAS.GET IMMED MED ATTN.SKIN:IMMED WASH W/ LOTS OF
SOAP & WATER.REMOVE CONTAM CLTHG/SHOES.GET MED ATTN IF IRRIT
PERSISTS.INGEST:IF CONSCIOUS,IMMED INDUCE VOMIT;GIVE 2 GLASSES OF WATER,
STICK FINGER DOWN THROAT.GET IMMED MED ATTN.DO NOT GIVE ANYTHING TO AN
UNCON/CONVULSING PERSON.INHAL:REMOVE TO FRESH AIR.GIVE ARTF (SEE SUPP)

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: WEAR PROT EQUIP (RUBBER BOOTS/GLOVES/APRON,
SCBA IN PRESS DEMAND MODE/SUPPLIED-AIR RESP,EYE PROT).EXTING IGNIT SOURCES.
SMALL SPILL-USE FULL FACEPIECE AIR-PURIFYING CARTRIDGE RESP FOR ORG VAP.
MOP/WIPE UP,DISPOSE IN DOT-APPRVD CONTR.LRG SPILL-(SEE SUP)

Neutralizing Agent: N/K (FP N/ORNL)

Waste Disposal Method: DISPOSAL MUST BE IAW FEDERAL,STATE, & LOCAL REGS
(FP N).DISPOSE OF CONTAM PROD,CLEAN-UP MATLS IN APPROVED MANNER (CONSULT
AUTH FOR PROC).EMPTY CONTR HAS RESIDUES,GASES,MISTS;SUBJECT TO PROPER DISP.
GLYCOL ETHERS:SARA TITLE III SECTION 313 LISTED.

Precautions-Handling/Storing: STORE IN A COOL,DRY,WELL-VENTED PLACE AWAY
FROM INCOMPATIBLE MATLS.KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE.DO
NOT USE PRESSURE TO EMPTY CONTR.

Other Precautions: WASH THORO AFTER HANDLING.DO NOT GET IN EYES,ON SKIN,ON
CLOTHING.KEEP AWAY FROM HEAT,SPARKS,FLAMES.DO NOT CUT,GRIND,WELD,DRILL
ON/

NEAR CONTR.CONTR (EVEN EMPTY) RETAINS RESIDUE/VAPORS;OBEY HAZARD
WARNINGS,
HANDLE EMPTY CONTR AS IF FULL.

Control Measures

Respiratory Protection: WEAR NIOSH-APPROVED RESP APPROP FOR EMISSION
LEVELS.APPROP RESP MAY BE FULL FACEPIECE,HALF-MASK AIR-PURIFYING CARTRIDGE
RESP EQUIPPED FOR ORGANIC VAPORS/MISTS,SELF-CONTAINED BREATHING APPARATUS
IN PRESSURE DEMAND MODE,OR SUPPLIED-AIR RESP.

Ventilation: LOCAL MECHANICAL EXHAUST VENTILATION CAPABLE OF MINIMIZING
EMISSIONS AT POINT OF USE.

Protective Gloves: RUBBER

Eye Protection: CHEMICAL GOGGLES

Other Protective Equipment: LONG-SLEEVED SHIRT,TROUSERS,SAFETY SHOES,
RUBBER APRON.AN EYEWASH AND SAFETY SHOWER SHOULD BE NEARBY AND READY
FOR
USE.

Work Hygienic Practices: DO NOT WEAR CONTACT LENSES WHEN WORKING WITH
CHEMICALS.WASH CONTAM CLOTHING BEFORE REUSE.WASH THOROUGHLY AFTER
HANDLING.

Suppl. Safety & Health Data: LD50-LC50 MIX:RABBIT DERMAL 650 MG/KG.ENTRY
RTE:INH/INGEST (FP N);SKIN/EYE CONTACT (MFR).FIRST AID PROC:RESP IF NOT
BRTHG.GET IMMED MED ATTN.SPILL PROC:DIKE W/ SOIL/OTHER NONCOMBUST,PUMP/

PLACE INTO APPRVD CONTR;KEEP OUT OF SEWERS,STORM DRAINS,SURF WATERS,SOIL.
COMPLY W/ REGS ON SPILL REPORTING/HANDLING/DISPOSAL.

Transportation Data

DOT PSN Code: ZZZ	IATA Proper Shipping Name: NOT
DOT Proper Shipping Name: NOT	REGULATED BY THIS MODE OF
REGULATED BY THIS MODE OF	TRANSPORTATION
TRANSPORTATION	AFI PSN Code: ZZZ
IMO PSN Code: ZZZ	AFI Prop. Shipping Name: NOT REGULATED
IMO Proper Shipping Name: NOT	BY THIS MODE OF TRANSPORTATION
REGULATED FOR THIS MODE OF	Additional Trans Data: NOT REGULATED
TRANSPORTATION	FOR TRANSPORTATION
IATA PSN Code: ZZZ	

Disposal Data

Refer to applicable regional, state and federal codes.

Label Data

Common Name: DIETHYLENE GLYCOL	KIDNEY INJURY.INHALATION MAY
MONOMETHYL ETHER	CAUSE LETHARGY AND DIARRHEA.
Signal Word: WARNING!	CHRONIC:ETHYLENE
Acute Health Hazard-Moderate: X	OXIDE: KNOWN TO CAUSE
Contact Hazard-Slight: X	REPRODUCTIVE DISORDERS (FEMALE)
Fire Hazard-Moderate: X	(CAL PROP
Reactivity Hazard-None: X	65,1987).IRRITATES SKIN AFTER
Special Hazard Precautions: WARNING!	PROLONGED CONTACT.CANCER
FLAMMABLE LIQUID ACUTE:LIQUID AND	HAZARD:CONTAINS
MIST MAY IRRITATE EYES AND BE	MATERIAL WHICH CAN CAUSE CANCER.
PAINFUL.MAY BE ABSORBED THROUGH	Protect Eye: Y
SKIN BUT VERY	Protect Skin: Y
LOW IN TOXICITY.SLIGHTLY TOXIC BY	Protect Respiratory: Y
INGESTION; MAY CAUSE	
NAUSEA,NARCOSIS,AND	

Regulatory Data

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: **NONE**

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.