

An ISO 9001:2000  
Certified Company



THE POWER OF THREE<sup>3</sup>

**PHARMCO-AAPER**

AND COMMERCIAL ALCOHOLS

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

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## **MATERIAL SAFETY DATA SHEETS**

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Part Number/Trade Name: ETHYLENE GLYCOL MONOETHYL ETHER, GLYCOL ETHER EE  
This MSDS is valid for all grades and catalog numbers

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### General Information

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Manufacturer: PHARMCO-AAPER  
58 Vale Road  
Brookfield, CT 06804  
Phone (203) 740-3471  
Fax (203) 740-3481  
1101 Isaac Shelby Drive  
Shelbyville, KY 40065  
Phone (502) 633-0650  
Fax (502) 633-0685

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### Ingredients/Identity Information

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Ingredient: 2-ETHOXYETHANOL (EGEE)  
(SARA III)  
Ingredient Sequence Number: 01  
Percent: >99  
NIOSH (RTECS) Number: KK8050000  
CAS Number: 110-80-5  
OSHA PEL: S,200 PPM  
ACGIH TLV: S, 5 PPM; 9192  
Other Recommended Limit: N/K (FP N/ORNL)

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### Physical/Chemical Characteristics

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Appearance And Odor: CLEAR,COLORLESS  
LIQUID;MILD ODOR.  
Boiling Point: 276F,136C  
Melting Point: N/K (FP N)  
Vapor Pressure (MM Hg/70 F): 4 MMHG  
Vapor Density (Air=1): 3.1,AIR=1  
Specific Gravity: 0.931 (WATER=1)  
Decomposition Temperature: N/K (FP N)  
Evaporation Rate And Ref: 0.4 (BUTYL  
ACETATE=1)  
Solubility In Water: 100%  
Percent Volatiles By Volume: 100

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### Fire and Explosion Hazard Data

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Flash Point: 108F,42C  
Flash Point Method: TCC  
Lower Explosive Limit: 1.7%  
Upper Explosive Limit: 15.6%  
Extinguishing Media: USE WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE OR  
ALCOHOL FOAM.  
Special Fire Fighting Proc: FIREFIGHTERS SHOULD WEAR SELF-CONTAINED  
BREATHING APPARATUS & FULL PROTECTIVE CLOTHING. USE WATER SPRAY TO COOL  
NEARBY CONTAINERS & STRUCTURES EXPOSED TO FIRE.  
Unusual Fire And Expl Hazrds: EXTINGUISH ALL SOURCES OF IGNITION.  
EXPLOSIVE VAPOR-AIR MIXTURE MAY BE FORMED ABOVE FLASH POINT OR BETWEEN  
THE

LOWER AND UPPER FLAMMABLE LIMITS.

Reactivity Data

Stability: YES  
Cond To Avoid (Stability): HEAT, SPARKS,  
AND OPEN FLAMES.  
Materials To Avoid: ALKALIS, OXIDIZING  
MATERIALS, WATER, AND MOIST AIR.

Hazardous Decomp Products: MAY LIBERATE  
CARBON MONOXIDE AND CARBON  
DIOXIDE.  
Hazardous Poly Occur: NO  
Conditions To Avoid (Poly): WILL NOT  
OCCUR.

Health Hazard Data

LD50-LC50 Mixture: LD50 RAT ORAL 3000 MG/KG  
Route Of Entry - Inhalation: NO  
Route Of Entry - Skin: YES  
Route Of Entry - Ingestion: NO  
Health Haz Acute And Chronic: INHALATION-VAPORS ARE IRRITATING TO THE  
EYES, NOSE AND RESPIRATORY TRACT. EYE-CAUSES IRRITATION. SKIN-PROLONGED OR  
REPEATED CONTACT MAY IRRITATE THE SKIN, CAUSING DERMATITIS. SWALLOWED-  
SWALLOWING LARGE QUANTITIES MAY CAUSE KIDNEY, LIVER AND BLOOD FORMING  
ORGAN  
DAMAGE.  
Carcinogenicity - NTP: NO  
Carcinogenicity - IARC: NO  
Carcinogenicity - OSHA: NO  
Explanation Carcinogenicity: NOT CARCINOGENIC.  
Signs/Symptoms Of Overexp: INHALATION-OVEREXPOSURE MAY RESULT IN HEADACHE,  
NAUSEA & VOMITING. SKIN-BRIEF CONTACT MAY DRY THE SKIN. SWALLOWING-MAY  
CAUSE HEADACHE, DIZZINESS AND WEAKNESS.  
Med Cond Aggravated By Exp: PRE-EXISTING SKIN, EYE, AND RESPIRATORY  
DISORDERS OR IMPAIRED LIVER, KIDNEY, OR BLOOD FORMING ORGAN FUNCTIONS MAY  
BE AGGRAVATED BY EXPOSURE.  
Emergency/First Aid Proc: INHALED-REMOVE TO FRESH AIR. GIVER CPR IF NOT  
BREATHING. SEE DOCTOR. EYE-IMMEDIATELY FLUSH EYE WITH LOTS OF RUNNING  
WATER  
FOR 15 MIN. SEE DOCTOR. SKIN-IMMEDIATELY WASH SKIN WITH LOTS OF SOAP AND  
WATER. REMOVE CONTAMINATED CLOTHING/SHOES. SEE DOCTOR AFTER WASHING.  
SWALLOWED-IF CONSCIOUS, IMMEDIATELY INDUCE VOMITING BY GIVING 2 GLASSES OF  
WATER & STICKING FINGER DOWN THROAT. SEE DOCTOR.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: WEAR PROTECTIVE EQUIPMENT INCLUDING RUBBER  
BOOTS, RUBBER GLOVES, RUBBER APRON & SELF-CONTAINED BREATHING APPARATUS  
IN  
THE PRESSURE DEMAND OR A SUPPLIED AIR RESPIRATOR. MOP OR WIPE UP AND  
DISPOSE OF IN DOT APPROVED WASTE CONTAINER.  
Waste Disposal Method: DISPOSE OF CONTAMINATED PRODUCT AND MATERIAL USED  
IN CLEANING UP SPILLS OR LEAKS IN A MANNER APPROVED FOR THIS MATERIAL.  
CONSULT APPROPRIATE LOCAL, STATE AND FEDERAL REGULATORY AGENCIES TO  
ASCERTAIN PROPER DISPOSAL PROCEDURES.  
Precautions-Handling/Storing: STORE IN COOL, DRY, WELL-VENTED AREA AWAY  
FROM INCOMPATIBLES. KEEP CONTAINER CLOSED TIGHTLY; DO NOT USE PRESSURE TO  
EMPTY CONTAINERS. VENT FREQUENTLY.

Other Precautions: KEEP FROM HEAT, SPARKS, FLAMES. DO NOT CUT, GRIND, WELD, DRILL ON/NEAR CONTAINERS. CONTAINER (EVEN EMPTY) RETAINS RESIDUE; OBEY HAZARD PRECAUTIONS, HANDLE AS IF FULL. USE NON-SPKING TOOLS.D O NOT BREATHE VAPORS.

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Control Measures

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Respiratory Protection: WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS IN PRESSURE DEMAND MODE,OR A SUPPLIED-AIR RESPIRATOR.  
Ventilation: HANDLE IN COVERED EQUIPMENT, IN WHICH CASE GENERAL (MECHANICAL) ROOM VENTILATION IS EXPECTED TO BE SATISFACTORY.  
Protective Gloves: RUBBER GLOVES.  
Eye Protection: CHEMICAL GOGGLES  
Other Protective Equipment: LONG-SLEEVED SHIRT, TROUSERS, SAFETY SHOES, RUBBER APRON. AN EYEWASH AND SAFETY SHOWER SHOULD BE NEARBY & READY FOR USE.  
Work Hygienic Practices: DO NOT WEAR CONTACT LENSES. WASH SOILED CLOTHING BEFORE REUSE, DESTROY SOLIED LEATHER. WASH THOROUGHLY AFTER HANDLING.  
Suppl. Safety & Health Data: NOTE: EMPTY CONTAINERS CAN HAVE RESIDUES, GASES AND MISTS AND ARE SUBJECT TO PROPER WASTE DISPOSAL.

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Transportation Data

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DOT PSN Code: GJL	IATA UN ID Number: 1993
DOT Proper Shipping Name: FLAMMABLE LIQUIDS, N.O.S.	IATA Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. *
DOT Class: 3	IATA UN Class: 3
DOT ID Number: UN1993	IATA Label: FLAMMABLE LIQUID
DOT Pack Group: III	AFI PSN Code: MCA
DOT Label: FLAMMABLE LIQUID	AFI Prop. Shipping Name: FLAMMABLE LIQUIDS, N.O.S.
IMO PSN Code: HIA	AFI Class: 3
IMO Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.	AFI ID Number: UN1993
IMO Regulations Page Number: 3345	AFI Pack Group: III
IMO UN Number: 1993	AFI Label: FLAMMABLE LIQUID
IMO UN Class: 3.3	AFI Basic Pac Ref: 7-7
IATA PSN Code: MCA	MMAC Code: NR

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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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Common Name: GLYCOL ETHER EE  
Chronic Hazard: YES  
Signal Word: WARNING!  
Acute Health Hazard-Moderate: X  
Contact Hazard-Moderate: X  
Fire Hazard-Moderate: X  
Reactivity Hazard-None: X  
Special Hazard Precautions: SPILL: WEAR PROTECTIVE EQUIPMENT INCLUDING RUBBER BOOTS, RUBBER GLOVES, RUBBER APRON & SELF-CONTAINED BREATHING APPARATUS IN THE PRESSURE DEMAND OR A SUPPLIED AIR RESPIRATOR. MOP OR WIPE UP AND DISPOSE OF IN DOT APPROVED WASTE CONTAINER. FIRST AID: INHALED-

REMOVE TO FRESH AIR. GIVER CPR IF NOT BREATHING. SEE DOCTOR. EYE-  
IMMEDIATELY FLUSH EYE WITH LOTS OF RUNNING WATER FOR 15 MIN. SEE DOCTOR.  
SKIN-IMMEDIATELY WASH SKIN WITH LOTS OF SOAP AND WATER. REMOVE  
CONTAMINATED  
CLOTHING/SHOES. SEE DOCTOR AFTER WASHING. SWALLOWED-IF CONSCIOUS,  
IMMEDIATELY INDUCE VOMITING BY GIVING 2 GLASSES OF WATER & STICKING FINGER  
DOWN THROAT. SEE DOCTOR.

Protect Eye: Y

Protect Skin: Y

Protect Respiratory: Y

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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.