

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: ETHYLENEDIAMINE  
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	1101 Isaac Shelby Drive
	Brookfield, CT 06804	Shelbyville, KY 40065
	Phone (203) 740-3471	Phone (502) 633-0650
	Fax (203) 740-3481	Fax (502) 633-0685

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### Ingredients/Identity Information

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Ingredient: ETHYLENEDIAMINE (SARA III)	CAS Number: 107-15-3
Ingredient Sequence Number: 01	OSHA PEL: 10 PPM
Percent: >99	ACGIH TLV: S, 10 PPM; 9192
NIOSH (RTECS) Number: KH8575000	Other Recommended Limit: 10 PPM

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### Physical/Chemical Characteristics

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Appearance And Odor: WATER-WHITE LIQUID, AMMONIACAL ODOR.	Specific Gravity: 0.9
Boiling Point: 243F, 117C	Evaporation Rate And Ref: 0.91 ( BU AC =1 )
Vapor Pressure (MM Hg/70 F): 10	Solubility In Water: COMPLETE
Vapor Density (Air=1): 2.07	Percent Volatiles By Volume: 100

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### Fire and Explosion Hazard Data

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Flash Point: 100F, 38C  
Flash Point Method: TCC  
Lower Explosive Limit: 5.8  
Upper Explosive Limit: 11.1  
Extinguishing Media: WATER FOG, ALCOHOL FOAM, CO2, DRY CHEMICAL  
Special Fire Fighting Proc: FIRE FIGHTERS SHOULD WEAR PROTECTIVE CLOTHING  
AND SELF-CONTAINED BREATHING APPARATUS.  
Unusual Fire And Expl Hazrds: FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION  
OF HAZARDOUS DECOMPOSITION PRODUCTS.

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### Reactivity Data

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Stability: YES  
Cond To Avoid (Stability): HI-TEMPERATURES OR SOURCES OF IGNITION;

Materials To Avoid: ACIDS,OXIDIZING MATERIAL, CHLORINATED ORGANIC COMPOUNDS

Hazardous Decomp Products: NITROGEN OXIDES.

Hazardous Poly Occur: NO

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Health Hazard Data

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Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: INHALATION-INHALATION OF MIST OR SPRAY MAY IRRITATE THE UPPER RESPIRATORY TRACT. INGESTION-MAY CAUSE BURNSTO MOUTH, ESOPHAGUS & STOMACH. SKIN-MAY CAUSE BURNS. EYE-MAY CAUSE SEVERE BURNS.

CHRONIC: ASTHMA, SKIN RASH.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Signs/Symptoms Of Overexp: EYES/SKIN:IRRITATION & BLISTERS; RESPIRTORY TRACT: IRRITATION, COUGHING. INGESTION: VOMITNG, DIARRHEA.

Med Cond Aggravated By Exp: RESPIRATORY AND SKIN DISEASES.

Emergency/First Aid Proc: INHALATION:REMOVE TO FRESH AIR, PROVIDE CPR/OXYGEN IF NEEDED. EYE CONTACT:FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL HELP. SKIN CONTACT:WASH WITH SOAP AND WATER. GET MED ATTENTION IF SYMPTOMS PERSIST. INGESTION:DO NOT INDUCE VOMITING, DRINK 1-2 GLASSES OF WATER. GET MEDICAL HELP IMMEDIATELY.

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Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: LARGE SPILL:DIKE UP & DILUTE W/COPIOUS QTY. OF WATER. PUMP INTO APPROPRIATE CONTAINERS; SMALL SPILL: SOAP UP W/ ABSORBENT MATERIAL, SHOVEL INTO APPROPRIATE CONTAINER FOR DISPOSAL.

Waste Disposal Method: RECOVER LARGE QTY. DISPOSE I/A/W FEDERAL, STATE & LOCAL REGULATIONS.

Precautions-Handling/Storing: FLAMMABLE AND CORROSIVE LIQUID. GROUND ALL TRANSFER EQUIP. STORE BELOW 115F.

Other Precautions: HOLD BULK STORAGE UNDER NITROGEN BLANKET.

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Control Measures

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Respiratory Protection: NONE NORMALLY REQUIRED. USE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS IF TLV IS EXCEEDED OR WHEN SPRAYING OR USING IN CONFINED SPACES.

Ventilation: LOCAL & MECHANICAL AS REQUIRED TO MAINTAIN CONC. BELOW TLV.

Protective Gloves: RUBBER

Eye Protection: CHEMICAL GOGGLES

Other Protective Equipment: EYE WASH.

Work Hygienic Practices: DO NOT EAT, DRINK OR SMOKE WHILE WORKING WITH THIS PRODUCT.

Suppl. Safety & Health Data: STORAGE CODE: F4 FLAMMABLE AND CORROSIVE LIQUID.

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Transportation Data

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DOT PSN Code: GCD

DOT Proper Shipping Name:  
ETHYLENEDIAMINE

DOT Class: 8  
DOT ID Number: UN1604  
DOT Pack Group: II  
DOT Label: CORROSIVE, FLAMMABLE  
LIQUID  
IMO PSN Code: GUT  
IMO Proper Shipping Name:  
ETHYLENEDIAMINE  
IMO Regulations Page Number: 8170  
IMO UN Number: 1604  
IMO UN Class: 8  
IMO Subsidiary Risk Label: FLAMMABLE  
LIQUID  
IATA PSN Code: LHL  
IATA UN ID Number: 1604

IATA Proper Shipping Name:  
ETHYLENEDIAMINE  
IATA UN Class: 8  
IATA Subsidiary Risk Class: 3  
IATA Label: CORROSIVE & FLAMMABLE  
LIQUID  
AFI PSN Code: LHL  
AFI Prop. Shipping Name:  
ETHYLENEDIAMINE  
AFI Class: 8  
AFI ID Number: UN1604  
AFI Pack Group: II  
AFI Label: CORROSIVE & FLAMMABLE  
LIQUID  
AFI Basic Pac Ref: 12-5

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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: ETHYLENEDIAMINE  
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: FLAMMABLE AND CORROSIVE LIQUID! INHALATION-  
INHALATION OF MIST OR SPRAY MAY IRRITATE THE UPPER RESPIRATORY TRACT.  
INGESTION-MAY CAUSE BURNS TO MOUTH, ESOPHAGUS & STOMACH. SKIN-MAY CAUSE  
BURNS. EYE-MAY CAUSE SEVERE BURNS. CHRONIC: ASTHMA, SKIN RASH. FLAMMABLE  
AND CORROSIVE LIQUID. GROUND ALL TRANSFER EQUIP. STORE BELOW 115F. FIRST  
AID: INHALATION: REMOVE TO FRESH AIR, PROVIDE CPR/OXYGEN IF NEEDED. EYE  
DO NOT INDUCE VOMITING, DRINK 1-2 GLASSES OF WATER. GET MEDICAL HELP  
IMMEDIATELY.  
Protect Eye: Y  
Protect Skin: Y  
Protect Respiratory: Y

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Label Data

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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:

Chemical Name	CAS Number	RQ
Ethylenediamine	107-15-3	5,000lb

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.