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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: CYCLOHEXANE

This MSDS is valid for all grades that start with catalog number 310

General Information

Manufacturer:	PHARMCO-AAPER	1101 Isaac Shelby Drive
	58 Vale Road	Shelbyville, KY 040065
	Brookfield, CT 06804	Phone (502) 633-0650
	Phone (203) 740-3471	Fax (502) 6330685
	Fax (203) 740-3481	

Ingredients/Identity Information

Proprietary: NO	NIOSH (RTECS) Number: GU6300000
Ingredient: CYCLOHEXANE	CAS Number: 110-82-7
Ingredient Sequence Number: 01	OSHA PEL: 300 PPM
Percent: 100	ACGIH TLV: 300 PPM

Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS LIQUID WITH A MILD, SWEET ODOR.	Specific Gravity: 0.779(H*2O=1)
Boiling Point: 177F,81C	Evaporation Rate And Ref: CA6(BUTYL ACETATE=1)
Melting Point: 43.7F,6.5C	Solubility In Water: 0.006%@25C
Vapor Pressure (MM Hg/70 F): 78@20C	Percent Volatiles By Volume: CA100
Vapor Density (Air=1): 2.9	

Fire and Explosion Hazard Data

Flash Point: -17F,-27C	N). WATER WILL NOT BE EFTIVE IN
Flash Point Method: CC	EXTING A FIRE & MAY SPREAD IT, BUT A
Lower Explosive Limit: 1.3%	WATER
Upper Explosive Limit: 8.4%	SPRAY CAN BE USED TO COOL (SUPP
Extinguishing Media: CARBON DIOXIDE, DRY CHEMICAL OR FOAM.	DATA)
Special Fire Fighting Proc: NIOSH/MSHA APPRVD SCBA & FULL PROT EQUIP(FP	Unusual Fire And Expl Hazrds: VOLATILE AND EXTREMELY FLAMMABLE.

Reactivity Data

Stability: YES

Cond To Avoid (Stability): HEAT, SPARKS, OPEN FLAME, OPEN CONTAINERS, AND POOR VENTILATION.
Materials To Avoid: STRONG OXIDIZING AGENTS.

Hazardous Decomp Products: INCOMPLETE COMBUSTION CAN GENERATE CARBON MONOXIDE AND OTHER TOXIC VAPORS.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT

Health Hazard Data

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: ACUTE: INHAL: EXPOSURE CAN CAUSE DIZZINESS, HEADACHE, NAUSEA, & UNCONSCIOUSNESS. EYE: LIQUID & VAPOR CONCENTRATION CAN BE IRRITATING. SKIN: PROLONGED OR REPEATED SKIN CONTACT CAN CAUSE IRRITATION & DERMATITIS THRU DEFATTING OF SKIN. INGEST: CAN CAUSE GI TRACT DISCOMFORT INCLUDING NAUSEA, VOMITING, (EFTS OF OVEREXP)

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: NOT RELEVANT

Signs/Symptoms Of Overexp: HLTH HAZ: AND DIARRHEA. CYCLOHEXANE IS A MILD EYE AND MUCOUS MEMBRANE IRRITANT, PRIMARY SKIN IRRITANT, AND CENTRAL NERVOUS SYSTEM DEPRESSANT. ACUTE EXPOSURE IRRITATES EYES AND RESPIRATORY SYSTEM. PROLONGED INHALATION MAY RESULT IN DROWSINESS, DIZZINESS, NAUSEA, AND OTHER SIGNS OF NARCOSIS.

Med Cond Aggravated By Exp: PRECLUDE FROM EXPOSURE THOSE INDIVIDUALS SUSCEPTIBLE TO DERMATITIS.

Emergency/First Aid Proc: INHAL: IMMEDIATELY REMOVE TO FRESH AIR. IF NOT BREATHING, ADMINISTER MOUTH-TO-MOUTH RESCUE BREATHING. IF THERE IS NO PULSE ADMINISTER CARDIOPULMONARY RESUSCITATION (CPR). CONTINUE PHYSICIAN IMMEDIATELY. EYE: RINSE WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MIN. GET EMERGENCY MEDICAL ASSISTANCE. SKIN: FLUSH THOROUGHLY FOR AT LEAST 15 MIN. WASH AFFECTED SKIN WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING & SHOES. WASH CLOTHING BEFORE RE-USE, & DISCARD (SUPPLEMENTAL DATA)

Precautions for Safe Handling and Use

Steps If Material Released/Spill: PROTECT FROM IGNITION. WEAR PROTECTIVE CLOTHING & USE APPROVED NIOSH/MSHA RESPIRATORY EQUIPMENT. ABSORB SPILLED MATERIAL IN AN ABSORBENT RECOMBINATION FOR SOLVENT SPILLS & REMOVE TO A SAFE LOCATION FOR DISPOSAL BY APPROVED METHOD. IF RELEASED TO ENVIRONMENT, COMPLY WITH ALL REGULATORY NOTIFICATION (SUPPLEMENTAL DATA)

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Method: DISPOSE OF CYCLOHEXANE AS AN EPA HAZARDOUS WASTE. CONTACT STATE ENVIRONMENTAL AGENCY FOR LISTING OF LICENSED HAZARDOUS WASTE DISPOSAL FACILITIES & APPLICABLE REGULATIONS. HAZARDOUS WASTE NUMBERS: U056 (IGNITABLE); D001 (IGNITABLE). DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE & LOCAL REGULATIONS (FP N).

Precautions-Handling/Storing: CYCLOHEXANE SHOULD BE PROTECTED FROM TEMPERATURE EXTREMES & DIRECT SUNLIGHT.

Other Precautions: PROPER STORAGE OF CYCLOHEXANE MUST BE DETERMINED BASED ON OTHER MATERIALS STORED & THEIR HAZARDOUS & POTENTIAL CHEMICAL INCOMPATIBILITY. IN GENERAL, CYCLOHEXANE SHOULD BE STORED IN AN ACCEPTABLY PROTECTED & SECURE FLAMMABLE LIQUID STORAGE ROOM.

Control Measures

Respiratory Protection: USE NIOSH/MSHA APPRVD RESP EQUIP. FOLLOW NIOSH & EQUIP MFR'S RECOM TO DETERM APPROP EQUIP (AIR-PURIFYING, AIR-SUPPLIED/SCBA)
Ventilation: ADEQ VENT IS REQD TO PROTECT PERS FROM EXPOS TO CHEM VAPS EXCEEDING PEL & TO MINIMIZE FIRE HAZ. CHOICE OF VENT (ING 2)
Protective Gloves: NITRILE RUBBER OR NEOPRENE.
Eye Protection: CHEM WORK GOG & FULL LNGTH FSHLD(FP N).
Other Protective Equipment: INDIVIDUALS WHO ARE ACUTELY AND SPECIFICALLY SENSITIVE TO CYCLOHEXANE MAY REQUIRE ADDITIONAL PROTECTIVE EQUIPMENT.
Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.
Suppl. Safety & Health Data: FIRE FIGHT PROC:EXPOSED CONTRS. HEAT WILL BUILD PRESS & MAY RUPTURE CLSD STOR CONTRS. FIRST AID PROC: CONTAMD SHOES. GET EMER MED ASSISTANCE. INGEST: CALL LOC POIS CTL CTR FOR ASSISTANCE. CONT REQUIREMENTS. CERCLA REPORTABLE QTY-1,000 LBS.

Transportation Data

Trans Data Review Date: 93194	IATA PSN Code: HWK
DOT PSN Code: ECV	IATA UN ID Number: 1145
DOT Proper Shipping Name: CYCLOHEXANE	IATA Proper Shipping Name: CYCLOHEXANE
DOT Class: 3	IATA UN Class: 3
DOT ID Number: UN1145	IATA Label: FLAMMABLE LIQUID
DOT Pack Group: II	AFI PSN Code: HWK
DOT Label: FLAMMABLE LIQUID	AFI Prop. Shipping Name: CYCLOHEXANE
IMO PSN Code: EYF	AFI Class: 3
IMO Proper Shipping Name: CYCLOHEXENE	AFI ID Number: UN1145
IMO Regulations Page Number: 3114	AFI Pack Group: II
IMO UN Number: 2256	AFI Label: FLAMMABLE LIQUID
IMO UN Class: 3.1	AFI Basic Pac Ref: 7-7
IMO Subsidiary Risk Label: -	

Disposal Data

Refer to applicable regional, state and federal codes.

Label Data

Common Name: CYCLOHEXANE	NAUSEA, AND UNCONSCIOUSNESS. EYE:
Chronic Hazard: NO	LIQUID AND VAPOR CONCENTRATION
Signal Word: DANGER!	CAN BE
Acute Health Hazard-Slight: X	IRRITATING. SKIN: PROLONGED OR
Contact Hazard-Moderate: X	REPEATED SKIN CONTACT CAN CAUSE
Fire Hazard-Severe: X	IRRITATION
Reactivity Hazard-None: X	AND DERMATITIS THRU DEFATTING OF
Special Hazard Precautions: FLAMMABLE!	SKIN. INGEST: CAN CAUSE GI TRACT
PROTECT FROM TEMPERATURE	DISCOMFORT INCLUDING NAUSEA,
EXTREMES &	VOMITING, AND DIARRHEA. CHRONIC:
DIRECT SUNLIGHT. ACUTE: INHAL:	NONE LISTED
EXPOSURE CAN CAUSE DIZZINESS,	BY MANUFACTURER.
HEADACHE,	Protect Eye: Y
Protect Respiratory: Y	Protect Skin: Y

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:

Chemical Name	CAS Number	RQ
Cyclohexane	110-82-7	1,000lb

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.