



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 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 #: (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: CYCLOHEXANE  
Ingredient Sequence Number: 01  
Percent: 100

NIOSH (RTECS) Number: GU6300000  
CAS Number: 110-82-7  
OSHA PEL: 300 PPM  
ACGIH TLV: 300 PPM

### Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS LIQUID WITH A MILD, SWEET ODOR.  
Boiling Point: 177F, 81C  
Melting Point: 43.7F, 6.5C  
Vapor Pressure (MM Hg/70 F): 78@20C  
Vapor Density (Air=1): 2.9

Specific Gravity: 0.779(H\*2O=1)  
Evaporation Rate And Ref: CA6(BUTYL ACETATE=1)  
Solubility In Water: 0.006% @25C  
Percent Volatiles By Volume: CA100

### Fire and Explosion Hazard Data

Flash Point: -17F, -27C  
Flash Point Method: CC  
Lower Explosive Limit: 1.3%  
Upper Explosive Limit: 8.4%

Extinguishing Media: CARBON DIOXIDE, DRY CHEMICAL OR FOAM.  
Special Fire Fighting Proc: NIOSH/MSHA APPRVD SCBA & FULL PROT EQUIP(FP

N). WATER WILL NOT BE EFFECTIVE IN  
EXTINGUISHING A FIRE & MAY SPREAD IT, BUT A  
WATER

SPRAY CAN BE USED TO COOL (SUPP  
DATA)  
Unusual Fire And Expl Hazards: VOLATILE  
AND EXTREMELY FLAMMABLE.

Reactivity Data

Stability: YES  
Conditions To Avoid (Stability): HEAT, SPARKS,  
OPEN FLAME, OPEN CONTAINERS, AND  
POOR VENTILATION.

Materials To Avoid: STRONG OXIDIZING  
AGENTS.  
Hazardous Decomposition Products: INCOMPLETE  
COMBUSTION CAN GENERATE CARBON  
MONOXIDE AND OTHER TOXIC VAPORS.  
Hazardous Polymerization: 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 Hazards Acute And Chronic: ACUTE: INHALATION: EXPOSURE CAN CAUSE DIZZINESS,  
HEADACHE, NAUSEA, & UNCONSCIOUSNESS. EYE: LIQUID & VAPOR CONCENTRATION  
CAN  
BE IRRITATING. SKIN: PROLONGED OR REPEATED SKIN CONTACT CAN CAUSE  
IRRITATION & DERMATITIS THROUGH DEFATTING OF SKIN. INGESTION: CAN CAUSE GI TRACT  
DISCOMFORT INCLUDING NAUSEA, VOMITING, (EFFECTS OF OVEREXPOSURE)  
Carcinogenicity - NTP: NO  
Carcinogenicity - IARC: NO  
Carcinogenicity - OSHA: NO  
Explanation Carcinogenicity: NOT RELEVANT  
Signs/Symptoms Of Overexposure: HEALTH HAZARD: 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.  
Medical Condition Aggravated By Exposure: PRECLUDE FROM EXPOSURE THOSE INDIVIDUALS  
SUSCEPTIBLE TO DERMATITIS.  
Emergency/First Aid Procedure: INHALATION: IMMEDIATELY REMOVE TO FRESH AIR. IF NOT BREATHING,  
ADMINISTER MOUTH-TO-MOUTH RESCUE BREATHING. IF THERE IS NO PULSE ADMINISTER  
CARDIOPULMONARY RESUSCITATION (CPR). CONTAIN PHYSICIAN IMMEDIATE. 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 (SUPP 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 RECOMMENDED FOR  
SOLVENT SPILLS & REMOVE TO A SAFE LOCATION FOR DISPOSAL BY APPROVED METHOD. IF RELEASED TO  
ENVIRONMENT, COMPLY WITH ALL REGULATORY NOTIFICATION (SUPP DATA)

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Method: DISPOSE OF CYCLOHEXANE AS AN EPA HAZ WASTE. CONT ST ENVIRON AGENCY FOR LISTING OF LICENSED HAZ WASTE DISP FACILITIES & APPLIC REGS. HAZ WASTE NUMBERS: U056 (IGNITABLE); D001(IGNITABLE). DISPOSE OF I/A/W FEDERAL, STATE & LOCAL REGS (FP N).

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

Other Precautions: PROPER STOR OF CYCLOHEXANE MUST BE DETERM BASED ON OTHER MATLS STORED & THEIR HAZ & POTNTL CHEM INCOMPATIBILITY. IN GEN, 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 LENGTH 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

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Common Name: CYCLOHEXANE

Chronic Hazard: NO

Signal Word: DANGER!

Acute Health Hazard-Slight: X

Contact Hazard-Moderate: X

Fire Hazard-Severe: X

Reactivity Hazard-None: X

Special Hazard Precautions: FLAMMABLE!

PROTECT FROM TEMPERATURE

EXTREMES &

DIRECT SUNLIGHT. ACUTE: INHAL:

EXPOSURE CAN CAUSE DIZZINESS,

HEADACHE,

Protect Respiratory: Y

NAUSEA, AND UNCONSCIOUSNESS. EYE:  
LIQUID AND VAPOR CONCENTRATION  
CAN BE

IRRITATING. SKIN: PROLONGED OR  
REPEATED SKIN CONTACT CAN CAUSE  
IRRITATION

AND DERMATITIS THRU DEFATTING OF  
SKIN. INGEST: CAN CAUSE GI TRACT  
DISCOMFORT INCLUDING NAUSEA,

VOMITING, AND DIARRHEA. CHRONIC:

NONE LISTED

BY MANUFACTURER.

Protect Eye: Y

Protect Skin: 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.