



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

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: DIOXANE
This MSDS is valid for all grades and catalog numbers

General Information

Company's Name: PHARMCO PRODUCTS, INC.	Date MSDS Revised: Nishant-8/23/99
Company's Street: 58 VALE RD.	Safety Data Review Date: 8/23/99
Company's City: BROOKFIELD	Preparer's Company: PHARMCO PRODUCTS, INC.
Company's State: CT	Preparer's St Or P. O. Box: 58 VALE RD.
Company's Zip Code: 06804	Preparer's City: BROOKFIELD
Company's Emerg Ph #: (203) 740-3471	Preparer's State: CT
Company's Info Ph #: (203) 740-3471	Preparer's Zip Code: 06804

Ingredients/Identity Information

Ingredient: 1,4-DIOXANE (DIETHYLENE DIOXIDE) (SARA III)	CAS Number: 123-91-1
Ingredient Sequence Number: 01	OSHA PEL: S, 100 PPM
NIOSH (RTECS) Number: JG8225000	ACGIH TLV: S, 25 PPM; 9293
	Other Recommended Limit: NONE SPECIFIED

Physical/Chemical Characteristics

Appearance And Odor: COLORLESS LIQUID - ETHEREAL ODOR	Decomposition Temperature: UNKNOWN
Boiling Point: 214F,101C	Evaporation Rate And Ref: 2.7 (N-BUTYL ACETATE=1)
Melting Point: 53.2F,11.8C	Solubility In Water: MISCIBLE
Vapor Pressure (MM Hg/70 F): 29	Percent Volatiles By Volume: 100
Vapor Density (Air=1): 3.03	Viscosity: UNKNOWN
Specific Gravity: 1.035	Corrosion Rate (IPY): UNKNOWN

Fire and Explosion Hazard Data

Flash Point: 54.0F,12.2C
Flash Point Method: CC
Lower Explosive Limit: 2.0
Upper Explosive Limit: 22.0

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, ALCOHOL FOAM, OR DRY CHEMICAL.

Special Fire Fighting Proc: WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire And Expl Hazrds: VAPORS FORM EXPLOSIVE MIXTURES IN AIR; VAPORS ARE HEAVIER THAN AIR AND CAN TRAVEL CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.

=====
=====
Reactivity Data
=====

=====
Stability: YES

Cond To Avoid (Stability): HIGH HEAT, SPARKS, OPEN FLAMES AND OTHER SOURCES OF IGNITION. PROLONGED STORAGE CAN FACILITATE FORMATION OF PEROXIDE.

Materials To Avoid: NICKEL, OXIDIZERS, OXYGEN, HALOGENS, HCL, SO3, SILVER PERCHLORATE, HYDROGEN PEROXIDE

Hazardous Decomp Products: COX, PEROXIDES

Hazardous Poly Occur: NO

Conditions To Avoid (Poly): NOT APPLICABLE
=====

=====
Health Hazard Data
=====

=====
LD50-LC50 Mixture: LD50 (ORAL RAT) IS UNKNOWN

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: NO

Health Haz Acute And Chronic: ACUTE-TOXIC AMOUNTS CAN BE ABSORBED THROUGH SKIN; REPEATED INHALATION OF LOW CONCENTRATIONS CAN BE FATAL. MAY CAUSE INJURY TO LIVER AND KIDNEYS, POSSIBLY LEADING TO DEATH. CAUSES IRRITATION OF EYES, SKIN AND RESPIRATORY PASSAGES. CHRONIC-MAY CAUSE LIVER AND KIDNEYS INJURY.

Carcinogenicity - NTP: YES

Carcinogenicity - IARC: YES

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: SUSPECTED CARCINOGEN PER 1979 NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (MSDS).

Signs/Symptoms Of Overexp: HEADACHE, NAUSEA AND EYE IRRITATION

Med Cond Aggravated By Exp: PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE PROBLEMS OR IMPAIRED LIVER, KIDNEY OR RESPIRATORY FUNCTION MAY BE MORE

SUSCEPTIBLE TO THE EFFECTS OF THE SUBSTANCE.

Emergency/First Aid Proc: GET IMMEDIATE MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE. INHALATION: REMOVE TO FRESH AIR. EYES: IMMEDIATELY FLUSH WITH

WATER FOR 15 MINUTES HOLDING EYELIDS OPEN. SKIN: REMOVE CONTAMINATED CLOTHING. WASH SKIN WITH SOAP AND WATER. INGESTION: GET IMMEDIATE HELP.
=====

=====
Precautions for Safe Handling and Use
=====

=====
Steps If Matl Released/Spill: ELIMINATE ALL SOURCES OF IGNITION. ABSORB

MATERIAL IN VERMICULITE/OTHER SUITABLE ABSORBENT & PLACE IN IMPERVIOUS CONTAINER.

Neutralizing Agent: NOT APPLICABLE.

Waste Disposal Method: DISCHARGE, TREATMENT OR DISPOSAL MAY BE SUBJECT TO LOCAL, STATE AND FEDERAL REGULATIONS.

Precautions-Handling/Storing: STORAGE-STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM OXIDIZERS, HEAT, FLAME, COMBUSTIBLE.

Other Precautions: PEROXIDE CONTENT SHOULD BE CHECKED BEFORE USE OF MATERIAL WHICH HAS BEEN STORED FOR A LONG TIME. WASH THOROUGHLY AFTER HANDLING. AVOID CONTACT WITH EYES AND SKIN. DO NOT BREATHE VAPORS.

=====
===

Control Measures

=====
===

Respiratory Protection: USE NIOSH/MSHA APPROVED ORGANIC VAPOR RESPIRATOR AS REQUIRED IF ABOVE PEL/TLV OR SELF CONTAINED BREATHING APPARATUS IN AN ENCLOSED AREA.

Ventilation: LOCAL/MECHANICAL (NON-SPARKING) EXHAUST TO MAINTAIN PEL/TLV.

Protective Gloves: NEOPRENE, NITRILE, OR NATURAL RUBBER

Eye Protection: SAFETY GOGGLES WITH OPTIONAL FACE SHIELD

Other Protective Equipment: EYE WASH STATION AND SAFETY SHOWER, WORK CLOTHING AND APRON AS REQUIRED.

Work Hygienic Practices: OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

=====
===

Transportation Data

=====
===

DOT PSN Code: FNF

DOT Proper Shipping Name: DIOXANE

DOT Class: 3

DOT ID Number: UN1165

DOT Pack Group: II

DOT Label: FLAMMABLE LIQUID

IMO PSN Code: GED

IMO Proper Shipping Name: DIOXANE

IMO Regulations Page Number: 3217

IMO UN Number: 1165

IMO UN Class: 3.2

IMO Subsidiary Risk Label: -

IATA PSN Code: KEZ

IATA UN ID Number: 1165

IATA Proper Shipping Name: DIOXANE

IATA UN Class: 3

IATA Label: FLAMMABLE LIQUID

AFI PSN Code: KEZ

AFI Prop. Shipping Name: DIOXANE

AFI Class: 3

AFI ID Number: UN1165

AFI Pack Group: II

AFI Label: FLAMMABLE LIQUID

AFI Basic Pac Ref: 7-7

Additional Trans Data: NONE

=====
===

Disposal Data

=====
===

Refer to applicable regional, state and federal codes.

=====
===

Label Data

=====
===

Common Name: DIOXANE, ACS

Special Hazard Precautions: ACUTE-TOXIC AMOUNTS CAN BE ABSORBED THROUGH

SKIN; REPEATED INHALATION OF LOW CONCENTRATIONS CAN BE FATAL. MAY CAUSE INJURY TO LIVER AND KIDNEYS, POSSIBLY LEADING TO DEATH. CAUSES IRRITATION OF EYES, SKIN AND RESPIRATORY PASSAGES. CHRONIC-MAY CAUSE LIVER AND KIDNEYS INJURY. HEADACHE, NAUSEA AND EYE IRRITATION

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.