



An ISO 9001:2000
Certified Company

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

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: CHLOROFORM
This MSDS is valid for all grades that start with catalog number 309

General Information

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

Ingredients/Identity Information

Proprietary: NO Ingredient: CHLOROFORM	CAS Number: 67-66-3
Ingredient Sequence Number: 01	OSHA PEL: (C) 50 PPM
Percent: 100	ACGIH TLV: 10 PPM; A2; 9293
NIOSH (RTECS) Number: FS9100000	Other Recommended Limit: NOT ESTABLISHED

Physical/Chemical Characteristics

Appearance and Odor: HEAVY, VOLATILE, COLORLESS LIQUID; ETHEREAL ODOR.	Evaporation Rate And Ref: 11.6 (N-BUTYL ACETATE=1)
Boiling Point: 142F, 61C	Solubility In Water: SLIGHT
Melting Point: -83F, -64C	Percent Volatiles By Volume: 100
Vapor Pressure (MM Hg/70 F): 160	Viscosity: UNKNOWN
Vapor Density (Air=1): 4.1	Corrosion Rate (IPY): UNKNOWN
Specific Gravity: 1.474	Autoignition Temperature: NONE
Decomposition Temperature: >2000F, >109	

Fire and Explosion Hazard Data

Flash Point: NONCOMBUSTIBLE
Lower Explosive Limit: NONE
Upper Explosive Limit: NONE
Extinguishing Media: DRY CHEMICAL, ALCOHOL FOAM OR CARBON DIOXIDE.
Special Fire Fighting Proc: WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND FULL FACE-PIECE SELF-CONTAINED BREATHING APPARATUS.
Unusual Fire and Explosive Hazards: WHEN INVOLVED IN FIRE, CHLOROFORM EMITS HIGHLY TOXIC AND IRRITATING FUMES.

Reactivity Data

Stability: YES

Conditions To Avoid (Stability): EXPOSURE TO LIGHT AND AIR.

Materials To Avoid: STRONG ALKALIES OR ACTIVE METALS SUCH AS ALUMINUM, MAGNESIUM, SODIUM OR POTASSIUM, LITHIUM, DISILANE (ACETONE+CAUSTICS).

Hazardous Decomposition Products: MAY EMIT TOXIC FUMES OF CHLORIDES, CARBON MONOXIDE AND PHOSGENE IN FIRE.

Hazardous Poly Occur: NO

Conditions To Avoid (Poly): NOT APPLICABLE

Health Hazard Data

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: NO

Route Of Entry - Ingestion: NO

Health Haz Acute And Chronic: MAY BE IRRITATING TO EYES, SKIN AND RESPIRATORY TRACT. MODERATELY TOXIC. TARGET ORGANS: CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS.

Carcinogenicity - NTP: YES

Carcinogenicity - IARC: YES

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: CHLOROFORM: GROUP 2B (IARC), GROUP 2 (NTP).

ANIMAL DATA INDICATES BIRTH DEFECT HAZARD.

Signs/Symptoms Of Overexp: MAY CAUSE IRRITATION, HEADACHE, DROWSINESS, VOMITING, DIZZINESS, PAIN, UNCONSCIOUSNESS, IRREGULAR HEARTBEAT, LIVER AND KIDNEY DAMAGE, DEATH.

Medical Conditions Aggravated By Exposure: DISEASES OF THE LIVER, KIDNEYS AND CENTRAL NERVOUS SYSTEM; SIMULTANEOUS EXPOSURE TO CHLOROFORM AND ALCOHOL CAN INCREASE THE TOXIC HAZARDS OF CHLOROFORM.

Emergency/First Aid Procedure: EYES: FLUSH WITH RUNNING WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH SKIN WITH SOAP AND WATER. GET MEDICAL ADVICE. INHALATION: REMOVE TO FRESH AIR. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: STOP MATERIAL FROM GOING TO DRAIN OR ENVIRONMENT. COLLECT ALL SPILLED MATERIAL AND DECONTAMINATE SPILL AREA. DISPOSE OF MATERIAL IN AN EPA APPROVED HAZARDOUS WASTE FACILITY.

Neutralizing Agent: NONE

Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE & LOCAL REGULATIONS.

Precautions-Handling/Storing: STORE IN TIGHTLY CLOSED CONTAINER. CAUTION. PROTECT FROM LIGHT. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. DO NOT BREATHE VAPOR.

Other Precautions: DO NOT SMOKE IN WORK AREA. DO NOT EXPOSE TO OPEN FLAMES OR HOT SURFACES. HEAT AND/OR UV RADIATION MAY CAUSE THE FORMATION OF HCL AND/OR PHOSGENE FUMES.

Control Measures

Respiratory Protection: THE SELECTION OF A NIOSH/MSHA APPROVED ORGANIC VAPOR RESPIRATOR SHOULD BE BASED UPON THE CONTAMINATION LEVELS FOUND IN THE WORK PLACE. THE WORKING LIMITS OF THE RESPIRATOR MUST NOT BE EXCEEDED. SCBA OR AIR-SUPPLIED RESPIRATOR RECOMMENDED.

Ventilation: LOCAL EXHAUST RECOMMENDED.

Protective Gloves: NITRILE OR PVA RUBBER GLOVES RECOMMENDED

Eye Protection: CHEMICAL SPLASH GOGGLES
Other Protective Equipment: APRON OR LABORATORY COAT
Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING.
Suppl. Safety & Health Data: NONE

Transportation Data

Trans Data Review Date: 92189	IATA UN ID Number: 1888
DOT PSN Code: DHF	IATA Proper Shipping Name: CHLOROFORM
DOT Proper Shipping Name: CHLOROFORM	IATA UN Class: 6.1
DOT Class: 6.1	IATA Label: TOXIC *
DOT ID Number: UN1888	AFI PSN Code: GJO
DOT Pack Group: II	AFI Prop. Shipping Name: CHLOROFORM
DOT Label: KEEP AWAY FROM FOOD *	AFI Class: 6.1
IMO PSN Code: EEH	AFI ID Number: UN1888
IMO Proper Shipping Name: CHLOROFORM	AFI Pack Group: II
IMO Regulations Page Number: 6103	AFI Label: POISON
IMO UN Number: 1888	AFI Special Prov: N36
IMO UN Class: 6.1	AFI Basic Pac Ref: 10-9
IMO Subsidiary Risk Label: -	Additional Trans Data: NONE
IATA PSN Code: GJO	

Disposal Data

Refer to applicable regional, state and federal codes.

Label Data

Common Name: CHLOROFORM
Chronic Hazard: YES
Signal Word: WARNING!
Acute Health Hazard-Moderate: X
Contact Hazard-Moderate: X
Fire Hazard-None: X
Reactivity Hazard-None: X
Special Hazard Precautions: MAY BE IRRITATING TO EYES, SKIN AND
RETAIN MATERIAL WITH DIKE. PUMP/VACUUM FREE MATERIAL AND ABSORB RESIDUE.
PLACE WASTE IN CLOSED CONTAINER. STORE IN TIGHTLY CLOSED CONTAINER.
CAUTION. PROTECT FROM LIGHT. FIRST AID: EYES: FLUSH WITH RUNNING WATER FOR
15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED
CLOTHING. WASH SKIN WITH SOAP AND WATER. INHALATION: REMOVE TO FRESH AIR.
PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF
NOT BREATHING. GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING.
GET IMMEDIATE MEDICAL ATTENTION.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y

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.