

An ISO 9001:2000
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: CHLOROFORM

This MSDS is valid for all grades that start with catalog number 309

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

1101 Isaac Shelby Drive

Shelbyville, KY 40065

Phone (502) 633-0650

Fax (502) 633-0685

Ingredients/Identity Information

Proprietary: NO Ingredient: CHLOROFORM

Ingredient Sequence Number: 01

Percent: 100

NIOSH (RTECS) Number: FS9100000

CAS Number: 67-66-3

OSHA PEL: (C) 50 PPM

ACGIH TLV: 10 PPM; A2; 9293

Other Recommended Limit: NOT ESTABLISHED

Physical/Chemical Characteristics

Appearance and Odor: HEAVY, VOLATILE, COLORLESS LIQUID; ETHEREAL ODOR.

Boiling Point: 142F, 61C

Melting Point: -83F, -64C

Vapor Pressure (MM Hg/70 F): 160

Vapor Density (Air=1): 4.1

Specific Gravity: 1.474

Decomposition Temperature: >2000F, >109

Evaporation Rate And Ref: 11.6 (N-BUTYL ACETATE=1)

Solubility In Water: SLIGHT

Percent Volatiles By Volume: 100

Viscosity: UNKNOWN

Corrosion Rate (IPY): UNKNOWN

Autoignition Temperature: NONE

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

DOT PSN Code: DHF

DOT Proper Shipping Name: CHLOROFORM

DOT Class: 6.1

DOT ID Number: UN1888

DOT Pack Group: II

DOT Label: KEEP AWAY FROM FOOD *

IMO PSN Code: EEH

IMO Proper Shipping Name: CHLOROFORM

IMO Regulations Page Number: 6103

IMO UN Number: 1888

IMO UN Class: 6.1

IMO Subsidiary Risk Label: -

IATA PSN Code: GJO

IATA UN ID Number: 1888

IATA Proper Shipping Name: CHLOROFORM

IATA UN Class: 6.1

IATA Label: TOXIC *

AFI PSN Code: GJO

AFI Prop. Shipping Name: CHLOROFORM

AFI Class: 6.1

AFI ID Number: UN1888

AFI Pack Group: II

AFI Label: POISON

AFI Special Prov: N36

AFI Basic Pac Ref: 10-9

Additional Trans Data: NONE

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

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
Chloroform	67-66-3	10 lb

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Chloroform

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.