

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

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: 2,2,4 – Trimethylpentane This MSDS is valid for all grades and catalog numbers

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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 _____

Ingredients/Identity Information

_____ ____ Proprietary: NO Ingredient: ISOOCTANE (2,2,4-TRIMETHYLPENTANE) Ingredient Sequence Number: 01 Percent: 100 NIOSH (RTECS) Number: SA3320000 _____ _____

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

CAS Number: 540-81-1 OSHA PEL: NOT ESTABLISHED ACGIH TLV: NOT ESTABLISHED Other Recommended Limit: NONE RECOMMENDED

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Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS, MOBILE LIQUID; GASOLINE ODOR Boiling Point: 210F,99C Melting Point: -161F,-107C Vapor Pressure (MM Hg/70 F): 41 MM HG Vapor Density (Air=1): 3.9(AIR=1) Specific Gravity: 0.6919(WATER=1) Decomposition Temperature: UNKNOWN Evaporation Rate And Ref: <1 (N-BUTYL ACETATE=1) Solubility In Water: NEGLIGIBLE Percent Volatiles By Volume: 100 Corrosion Rate (IPY): UNKNOWN Autoignition Temperature: 779F

Fire and Explosion Hazard Data

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_____ Flash Point: 10F,-12C Flash Point Method: COC Lower Explosive Limit: 1.1 Upper Explosive Limit: 6.0 Extinguishing Media: DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY, REGULAR FOAM Special Fire Fighting Proc: WEAR SELF-CONTAINED BREATHING APPARATUS AND BUNKER GEAR. MOVE CONTAINERS IF NO RISK. COOL FIRE EXPOSED CONTAINERS WITH WATER. Unusual Fire And Expl Hazrds: EXTREMELY FLAMMABLE. EVACUATE A RADIUS OF 1500 FEET FOR UNCONTROLLABLE FIRES. CONSIDER EVACUATION DOWNWIND IF MATERIAL IS LEAKING. _____

Reactivity Data

=== Stability: YES Cond To Avoid (Stability): AVOID SOURCES OF IGNITION AND CONTACT WITH INCOMPATIBLE MATERIALS. Materials To Avoid: STRONG OXIDIZING AGENTS AND REDUCING AGENTS. Hazardous Decomp Products: OXIDES OF CARBON Hazardous Poly Occur: NO Conditions To Avoid (Poly): NONE

Health Hazard Data

=== LD50-LC50 Mixture: ORAL LD50 (RAT) IS > 5000 MG/KG Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: YES Health Haz Acute And Chronic: ACUTE: INHALATION OF VAPORS MAY CAUSE RESPIRATORY IRRITATION AND CENTRAL NERVOUS SYTEM DEPRESSION. CONTACT WITH SKIN AND EYES MAY CAUSE IRRITATION. SWALLOWING MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION AND DIGESTIVE SYSTEM DISTRESS. CHRONIC: PROLONGED OR REPEATED INHALATION MAY CAUSE POLYNEUROPATHY; DERMATITIS. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NONE Signs/Symptoms Of Overexp: INHALED: DIZZINESS, COUGHING, SHORTNESS OF REDNESS, DISCOMFORT. SKIN: REDNESS, DISCOMFORT, SYSTEMIC EFFECTS SIMILAR TO INHALATION AND INGESTED. INGESTED: NAUSEA, DIARRHEA, DIFFICULTY BREATHING, VOMITING, DIZZINESS, HEADACHE. Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER. Emergency/First Aid Proc: INHALED: MOVE TO FRESH AIR. IF BREATHING STOPPED, GIVE ARTIFICIAL RESPIRATION. SEE DOCTOR. EYES: FLUSH WITH LOTS OF WATER FOR 15 MINUTES, HOLDING LIDS OPEN. SEE DOCTOR. SKIN: REMOVE CONTAMINATED CLOTHES. WASH WITH SOAP AND WATER. INGESTED: DO INDUCE VOMITING EXCEPT UNDER MEDICAL PERSONNEL/DOCTORS ORDERS. TAKE CARE TO

PREVENT ASPIRATION OF PRODUCT IF VOMITING OCCURS.

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Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: ELIMINATE ALL SOURCES OF IGNITION. ISOLATE/ DENY ENTRY. STOP LEAK IF POSSIBLE. CONTAIN SPILL. WEAR PROPER PROTECTIVE CLOTHING. ABSORB WITH INERT MATERIAL AND PLACE IN A LABELED CONTAINER FOR LATER DISPOSAL. KEEP OUT OF SEWERS AND WATERWAYS. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. WASTE MATERIAL IS EPA WASTE # D001. REPORTABLE QUANTITY FOR CERCLA SECTION 103 IS 100 POUNDS. Precautions-Handling/Storing: STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM SOURCES OF IGNITION AND INCOMPATIBLE MATERIALS. KEEP CONTAINER CLOSED. Other Precautions: NONE SPECIFIED BY MANUFACTURER. HMIS: USE PROPER GRONDING AND BONDING DURING TRANSFER OPERATIONS. _____ === **Control Measures** _____ ____ Respiratory Protection: IF ENGINEERING CONTROLS FAIL OR A SPILL OCCURS; USE NIOŚH/MSHA APPROVED RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE, OR SUPPLIED AIR RESPIRATOR, OR SCBA, AS APPROPRIATE. USE IN ACCORDANCE WITH 29 CFR 1910.134. Ventilation: EXPLOSION-PROOF LOCAL EXHAUST VENTILATION MUST BE PROVIDED TO MEET PUBLISHED EXPOSURE LIMITS. Protective Gloves: NITRILE, PVA Eye Protection: SAFETY GLASSES/CHEMICAL SPLASH GOGGLES Other Protective Equipment: IMPERVIOUS CLOTHING TO PREVENT PROLONGED OR REPEATED SKIN CONTACT. EYE WASH STATION. Work Hygienic Practices: WASH HANDS AFTER USE AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHES BEFORE REUSE. _____ === **Transportation Data** _____

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DOT Proper Shipping Name: OCTANES IATA UN ID Number: 1262 DOT Class: 3 IATA Proper Shipping Name: OCTANES DOT ID Number: UN1262 IATA UN Class: 3 DOT Pack Group: II IATA Label: FLAMMABLE LIQUID DOT Label: FLAMMABLE LIQUID AFI PSN Code: SLF IMO PSN Code: ISU AFI Prop. Shipping Name: OCTANES IMO Proper Shipping Name: ISOOCTANE AFI Class: 3 IMO Regulations Page Number: SEE3267 * AFI ID Number: UN1262 IMO UN Number: 1262 AFI Pack Group: II IMO UN Class: 3.2 AFI Label: FLAMMABLE LIQUID IMO Subsidiary Risk Label: -AFI Basic Pac Ref: 7-7 IATA PSN Code: SLF

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Disposal Data

=== Refer to applicable regional, state and federal codes. _____ === Label Data === Common Name: 2,2,4-TRIMETHYLPENTANE Chronic Hazard: YES Signal Word: DANGER! Acute Health Hazard-Moderate: X Contact Hazard-Slight: X Fire Hazard-Severe: X Reactivity Hazard-None: X Special Hazard Precautions: FLAMMABLE.INHALATION OF VAPORS MAY CAUSE RESPIRATORY IRRITATION AND CNS DEPRESSION.CONTACT WITH SKIN/EYES MAY CAUSE IRRITATION.SWALLOWING MAY CAUSE CNS DEPRESSION AND DIGESTIVE SYSTEM DISTRESS.PROLONGED OR REPEATED EXPOSURE MAY CAUSE POLYNEUROPATHY; DERMATITIS.FIRST AID:INHALED:MOVE TO FRESH AIR.IF BREATHING STOPPED, GIVE ARTIFICIAL RESPIRATION.SEE DOCTOR.EYES:FLUSH WITH LOTS OF WATER FOR 15 MINUTES, HOLDING LIDS OPEN. SEE DOCTOR.SKIN:REMOVE CONTAMINATED CLOTHES. WASH WITH SOAP AND WATER.INGESTED:DO INDUCE VOMITING EXCEPT UNDER **MEDICAL** PERSONNEL/DOCTORS ORDERS.TAKE CARE TO PREVENT ASPIRATION OF PRODUCT IF VOMITING OCCURS. 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.