

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

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: sec- Butyl alcohol This MSDS is valid for all grades and catalog numbers

=== **General Information** ______ ____ Company's Name: PHARMCO PRODUCTS, Date MSDS Revised: Nishant-8/23/99 INC. Safety Data Review Date: 8/23/99 Company's Street: 58 VALE RD. Preparer's Company: PHARMCO PRODUCTS, Company's City: BROOKFIELD 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: SEC-BUTYL ALCOHOL (SARA III) Ingredient Sequence Number: 01 Percent: 100 NIOSH (RTECS) Number: EO1750000 CAS Number: 78-92-2 OSHA PEL: 100 PPM ACGIH TLV: 100 PPM; 9192 Other Recommended Limit: NONE RECOMMENDED ______ === Physical/Chemical Characteristics _____ Appearance And Odor: COLORLESS LIQUID Vapor Pressure (MM Hg/70 F): 12 MMHG WITH A STRONG ODOR. Vapor Density (Air=1): 2.6 Boiling Point: 21.0F,-6.1C Specific Gravity: 0.8 Melting Point: -174F,-114C Autoignition Temperature: 761F ____

Fire and Explosion Hazard Data

Flash Point: 75.0F,23.9C Flash Point Method: CC

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Lower Explosive Limit: 1.7 Upper Explosive Limit: 9.8 Extinguishing Media: DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR ALCOHOL-RESISTANT FOAM. FOR LARGER FIRES, USE WATER SPRAY, FOG OR FOAM. Special Fire Fighting Proc: MOVE CONTAINERS FROM FIRE AREA IF WITHOUT RISK. APPLY COOLING WATER TO SIDES OF CONTAINER THAT ARE EXPOSED TO FLAMES UNTIL WELL AFTER FIRE IS OUT. Unusual Fire And Expl Hazrds: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR & MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION & FLASHBACK.

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Reactivity Data

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Stability: YES

Cond To Avoid (Stability): STABLE UNDER NORMAL TEMPERATURES AND PRESSURES. Materials To Avoid: STRONG ACIDS, ALKALI METALS, ALUMINUM, STRONG BASES, ORGANIC PEROXIDES, STRONG OXIDIZERS, CHLORINE,NITROGEN TETRAOXIDES. Hazardous Decomp Products: THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC OXIDES OF CARBON. Hazardous Poly Occur: NO

Conditions To Avoid (Poly): NONE

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Health Hazard Data

_____ === LD50-LC50 Mixture: ORAL LD50 (RAT) IS 4893 MG/KG Route Of Entry - Inhalation: YES Route Of Entry - Skin: YES Route Of Entry - Ingestion: YES Health Haz Acute And Chronic: ACUTE: INHALE-MAY IRRITATE THE RESPIRATORY TRACT. SKIN-MAY CAUSE SLIGHT IRRITATION. EYE-MAY CAUSE MODERATE TO SEVERE IRRITATION. INGESTION-MAY CAUSE ABDOMINAL DISCOMFORT. CHRONIC: SKIN-MAY CAUSE DRYING, CRACKING & DERMATITIS DUE TO DEFATTING. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NOT CARCINOGENIC. Signs/Symptoms Of Overexp: INHALE-MAY CAUSE SORE THROAT, COUGHING & SHORTNESS OF BREATH. SKIN-MAY CAUSE REDNESS EYE-REDNESS, PAIN, BLURRED VISION, CONJUNCTIVITIS & CORNEAL BURNS. INGESTION-MAY CAUSE NAUSEA, VOMITING, DIARRHEA, HEADACHE, DULLNESS, DROWSINESS AND UNCONSCIOUSNESS. Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER. Emergency/First Aid Proc: INHALE-REMOVE FROM EXPOSURE AREA TO FRESH AIR. IF BREATHING HAS STOPPED, PERFORM CPR. KEEP WARM & AT REST. GET MEDICAL ATTENTION. SKIN-REMOVE SOILED CLOTHING. WASH AREA WITH SOAP & WATER. GET MEDICAL ATTENTION. EYES-WASH EYES WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, FOR 15-20 MIN. GET MEDICAL ATTENTION. INGESTION-INDUCE EMESIS BY GIVING SYRUP OF IPECAC OR GASTRIC LAVAGE. SEE PHYSICIAN. _____ ===

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: SHUT OFF IGNITION SOURCES. STOP LEAK

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WITHOUT RISK. USE WATER SPRAY TO REDUCE VAPORS. ABSORB WITH SAND OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINER FOR LATER DISPOSAL. KEEP UNNECESSARY PEOPLE AWAY, ISOLATE HAZARD AREA & DENY ENTRY. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSAL MUST BE IN ACCORDANCE WITH STANDARD APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 40 CFR 262. EPA HAZARDOUS WASTE NUMBER D001. 100 LBS CERCLA SECTION 103 REPORTABLE QUANTITY. Precautions-Handling/Storing: STORE AWAY FROM INCOMPATIBLE SUBSTANCES. STORE IN ACCORDANCE WITH 29 CFR 1910.106. Other Precautions: OBSERVE ALL FEDERAL AND STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS MATERIAL. FOR ASSISTANCE CONTACT THE DISTRICT DIRECTOR OF THE ENVIRONMENTAL PROTECTION AGENCY. _____ === **Control Measures** _____ Respiratory Protection: THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN THE WORK PLACE, MUST NOT EXCEED THE LIMITS OF THE RESPIRATOR AND MUST BE JOINTLY APPROVED BY NIOSH AND MSHA. Ventilation: PROVIDE GENERAL DILUTION VENTILATION. VENTILATION EQUIPMENT MUST BE EXPLOSION-PROOF. Protective Gloves: WEAR PROTECTIVE GLOVES. Eye Protection: SPLASH-PROOF/DUST-RESISTANT GOGGLES. Other Protective Equipment: EMPLOYEE MUST WEAR APPRIOPIATE PROTECTIVE CLOTHING AND EQUIPMENT TO PREVENT REPEATED OR PROLONGED SKIN CONTACT. Work Hygienic Practices: EMERGENCY EYEWASH WHERE THERE IS A POSSIBILITY OF AN EMPLOYEE EYE CONTACT THE MATERIAL. Suppl. Safety & Health Data: NONE

=== Transportation Data _____ === DOT PSN Code: AHF IATA UN ID Number: 1987 DOT Proper Shipping Name: ALCOHOLS, IATA Proper Shipping Name: ALCOHOLS, N.O.S. * N.O.S. DOT Class: 3 IATA UN Class: 3 DOT ID Number: UN1987 IATA Label: FLAMMABLE LIQUID DOT Pack Group: II AFI PSN Code: ARF DOT Label: FLAMMABLE LIQUID AFI Prop. Shipping Name: ALCOHOLS, IMO PSN Code: AMT N.O.S. IMO Proper Shipping Name: ALCOHOLS, AFI Class: 3 N.O.S. AFI ID Number: UN1987 IMO Regulations Page Number: 3175 AFI Pack Group: II IMO UN Number: 1987 AFI Label: FLAMMABLE LIQUID IMO UN Class: 3.2 AFI Basic Pac Ref: 7-7 IMO Subsidiary Risk Label: -MMAC Code: NR IATA PSN Code: ARC ===

Disposal Data

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Refer to applicable regional, state and federal codes.

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Label Data

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.