MALLINCKRODT INC. SCIENCE PRODUCTS DIVISION -- BUTYL ALCOHOL,NORMAL 6810-00-124-0509

Product ID:BUTYL ALCOHOL,NORMAL MSDS Date:12/08/1996 FSC:6810 NIIN:00-124-0509 Kit Part:Y MSDS Number: BCZVG === Responsible Party === Company Name: MALLINCKRODT INC. SCIENCE PRODUCTS DIVISION Address: PARIS BYPASS Box:M City:PARIS State:KY ZIP:40361 Country:US Info Phone Num:800-354-2050(PRESS 3)/314-982-5000 Emergency Phone Num:800-354-205 0/314-539-1600 CAGE:62910 === Contractor Identification === Company Name: MALLINCKRODT SPECIALTY CHEMICALS CO Address:222 RED SCHOOL LANE Box:City:PHILLIPSBURG State:NJ ZIP:08865 Country:US Phone:908-859-2151 CAGE:62910 Company Name: PHOENIX INDUSTRIES INC Address:1519 CHAMBERLAYNE PARKWAY Box:City:RICHMOND State:VA ZIP:23222 Country:US Phone:804-264-5183/FAX: 264-5535 CAGE:0YED2

Ingred Name:N-BUTYL ALCOHOL (SARA 313) (CERCLA)

CAS:71-36-3 RTECS #:EO1400000 Fraction by Wt: 99-100% Other REC Limits:NONE RECOMMENDED OSHA PEL:100 PPM ACGIH TLV:S, C 50 PPM; 9596 EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

LD50 LC50 Mixture:ORAL LD50 (RAT) IS 790 MG/KG Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:ACUTE-INHALED:MAY IRRITATE NOSE &

- THROAT. DIZZINESS, HEADACHE & DROWSINESS MAY OCCUR.EYE: VAPORS CAN BE IRRITATING. SPLASHES CAUSE INFLAMMATION.SKIN: IRRITATION & LOSS OF NATURAL OILS. INGESTION: MAY BE N ARCOTIC.MAY CAUSE ABDOMINAL PAIN, NAUSEA, DIARRHEA.LARGE DOSES MAY AFFECT KIDNEYS & LIVER.CHRONIC-DRY SKIN & HEARING LOSS.
- Effects of Overexposure:INHALATION MAY IRRITATE NOSE & THROAT, CAUSING DIZZINESS, HEADACHE & DROWSINESS. VAPORS CAN BE IRRITATING TO EYES. SPLASHES CAUSE INFLAMMATION AND BLURRED VISION. MAY IRRITATE SKIN CAUSIN
- G A LOSS OF N ATURAL OILS. INGESTION MAY HAVE NARCOTICEFFECT. MAY CAUSE ABDOMINAL PAIN, NAUSEA AND DIARRHEA.
- Medical Cond Aggravated by Exposure: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.

First Aid:OBTAIN MEDICAL ATTENTION.INGESTION:IF CONSCIOUS,INDUCE VOMITING BY GIVING TWO GLASSES OF WATER

& TOUCHING BACK OF

THROAT.INHALATION:REMOVE FROM EXPOSURE.PROVIDE CPR/OXYGEN IF NEEDED.EYES/ SKIN:WASH WI TH WATER FOR AT LEAST 15 MINUTES.HOLD EYELIDS OPEN.

Flash Point Method:CC Flash Point:=37.C, 98.6F Lower Limits:1.4 Upper Limits:11.2 Extinguishing Media:CARBON DIOXIDE, FOAM OR DRY CHEMICAL. WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL & FLUSH SPILLS AWAY.

Fire Fighting Procedures:WEA

R FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND MODE.DILUTE SPILLS W/H2 Unusual Fire/Explosion Hazard:VAPORS CAN FLOW ALONG SURFACES TO DISTANCE IGNITION SOURCE AND FLASH BACK. ABOVE FLASH POINT, VAPOR-AIR MIXTURES ARE EXPLOSIVE WITHIN FLAMMABLE LIMITS.

Spill Release Procedures: FIRE HAZARD: ELIMINATE ALL SOURCES OF IGNITION.

EVACUATE AREA. VENTILATE AREA. STOP RELEASE. DIKE TO CONTAIN SPILL. WEAR PROPER SAFETY EQUIPMENT. IF AMOUNT IS LARGE, REMOVE LIQUID BY VACUUM. IF SMALL, ABSORB ON INERT MATERIAL. AVOID ENTERINGTO SEWERS

Handling and Storage Precautions:STORAGE-STORE IN COOL,WELL-VENTILATED AREA, IN TIGHTLY CLOSED CONTAINERS,AWAY FROM HEAT,SPARKS & FLAMES. Other Precautions:OUTSIDE/DETACHED STORAGE IS PREFERRED. SEPARATE FROM

OXIDIZERS. USE SPARK-RESISTANT TOOLS. WHEN TRANSFERRING FOLLOW PROPER GROUNDING PROCEDURES. USE WITH ADEQUATE VENTILATION. AVOID BREATHING VAPORS. AVOID CONTACT WITH EYES, SKIN & CLOTHING

====== Exposure Controls/Personal Protection ==========

Respiratory Protection: IF LEVELS EXCEED THE RECOMMENDED HEALTH STANDARDS, WEAR A NIOSH/MSHA APPROVED ORGANIC VAPOR RESPIRATOR. FOR EMERGENCY USE, WEAR A NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS/A SUPPLIED AI

R FULL FACEPIECE RESPIRATOR/AIRLINE HOOD.

Ventilation: USE LOCAL AND/OR GENERAL EXHAUST VENTILATION.

Protective Gloves: NEOPRENE OR RUBBER

Eye Protection: CHEMICAL SAFETY GOGGLES & FULL FACEPIECE

Other Protective Equipment: FOR OPERATIONS WHERE SPILLS OR SPLASHING CAN OCCUR, USE IMPERVIOUS BODY COVERING AND TOOLS, A SAFETY SHOWER AND EYE BATH.

Work Hygienic Practices: WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. WASH CONTAMINATED CLOTHING BEFORE REUSE. Supplemen

tal Safety and Health

HCC:F3 NRC/State Lic Num:NOT RELEVANT Boiling Pt:=117.8C, 244.F Melt/Freeze Pt:=-88.7C, -128.F Vapor Pres:5 Vapor Density:2.6 Spec Gravity:0.81 Evaporation Rate & amp; Reference:0.46 (N-BUTYL ACETATE=1) Solubility in Water:SLIGHT Appearance and Odor:CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC ODOR Percent Volatiles by Volume:100

Stabili

ty Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS, ALUMINUM, CHROMIUM TRIOXIDE, ALKALI METALS Stability Condition to Avoid:HEAT, SPARKS, FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:WHEN HEATED TO DECOMPOSITION, MAY EMIT TOXIC GASES AND VAPORS.

Waste Disposal Methods:THIS PRODUCT WHEN SPILLED OR DISPOSED IS A HAZARDOUS SOLID WASTE AS DEFINED IN RESOURCE CONSERVATION RECOVERY A

CT REGULATIONS(40CFR261).PREFERRED METHOD IS INCINERATION. ENSURE COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. RQ IS 5000 LBS.

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