Product ID:TYPE II, ALIPHATIC ISOCYANATE MSDS Date:07/01/1999 FSC:8010 NIIN:01-293-1369 Status Code:A MSDS Number: CLPTS === Responsible Party === Company Name:DEFT, INC. Address:17451 VON KARMAN AVE City:IRVINE State:CA ZIP:92614 Country:US Info Phone Num:949-474-0400 Emergency Phone Num:800-424-9 300 Preparer's Name: ERNEST CARTER Chemtrec Ind/Phone:(800)424-9300 CAGE:33461 === Contractor Identification === Company Name: DEFT, INC. Address:17451 VON KARMAN AVE City:IRVINE State:CA ZIP:92614 Country:US Phone:949-474-0400 CAGE:33461

Ingred Name:ETHYL 3-ETHOXYPROPIONATE CAS:763-69-9 RTECS #:UF3325000 = Wt:10.

Ingred Name:POLY(HEXAMETHYLENE DIISOCYANATE) CAS:28182-81-2 RTECS #:NQ9170000 = Wt:60.

Ingred Name:C8&10 AROMATI

C HYDROCARBON CAS:64742-95-6 Code:F RTECS #:WF3400000 < Wt:5.

Ingred Name:N-BUTYL ACETATE CAS:123-86-4 RTECS #:AF7350000 &It; Wt:5. OSHA PEL:710 MG/M3;150 PPM ACGIH TLV:713 MG/M3;150 PPM ACGIH STEL:950 MG/M3;200 PPM EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:METHYL N-PROPYL KETONE CAS:107-87-9 RTECS #:SA7875000 = Wt:25. OSHA PEL:700 MG/M3;200 PPM ACGIH TLV:705 MG/M3;200 PPM ACGIH STEL:881 MG/M3;250 PPM

Reports

of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:VAPORS ARE IRRITATING TO EYES, NOSE, AND THROAT. INHALTION MAY CAUSE HEADACHES, DIFFICULT BREATHING AND LOSS OF CONSCIOUSNESS. AS A RESULT OF PREVIOUS REPEATED OVEREXPOSURE OR A SINGLE LARGE DOSE, CE RTAIN INDIVIDUALS WILL DEVELOP ISOCYANATE SENSITIZATION WHICH WILL CAUSE THEM TO REACT TO A LATER EXPOSURE OF ISOCYANATE LEVELS WELL BELOW THE TLV VALUE OF ISOCYANATES.

Effects of Overexposure:IN

HALATION: IRRITATION OF THE RESPIRATORY TRACT

HEADACHE, DIZZINESS, STAGGERING GAIT. SKIN: CAN CAUSE SWELLING, REDNESS, AND RASH. EYES: VAPORS MAY CAUSE TEARING, REDNESS, AND SWELLING ACCOMPANIED BY A STINGING SENSATION. INGESTION: CAN RESULT IN CORROSIVE ACTION IN THE MOUTH, STOMACH TISSUE AND DIGESTIVE TRACT.

Medical Cond Aggravated by Exposure:ASTHMA AND ANY RESPIRATORY DISORDERS. SKIN ALLERGIES, AND DERMATITS.

Flash Point Method:TCC Flash Point:=7.8C, 46.F Lower Limits: 1.00% Upper Limits:8.00% Extinguishing Media: FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG, WATER SPRAY. Fire Fighting Procedures: FULL FIRE FIGHTING EQUIPMENT WITH SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING SHOULD BE WORN BY FIRE FIGHTERS. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUIL D UP AUTO IGNITION OR PLOSION. DURING A FIRE HDI VAPORS AND OTHER IRRITATING VAPORS MAY BE GENERATED BY COMBUSTION OR Unusual Fire/Explosion Hazard: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAME, CLOSED CONTAINERS MAY EXPLODE TO EXTREME HEAT. APPLICATION TO HOT

SURFACES REQUIRES SPECIAL PRECAUTIONS . DURING EMERGENCY CONDITIONS OVEREXPOSURE TO DECOMPOSITION PRODU CTS MAY CAUSE A HEALTH HAZARD.

Spill Release Procedures: EVACUATE ALL NON-ESSENTIAL PERSONNEL. REMOVE ALL SOURCES OF IGNITION (FLAME, SPARK SOURCES, HOT SURFACES). VENTILATE AREA CONTAIN AND REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS.

Handling and Storage Precautions:STORE IN TIGHTLY CLOSED CONTAINERS. STORE IN BUILDINGS DESIGNED TO COM

 PLY WITH OSHA 1910.106. AVOID STORING NEAR HIGH TEMPERATURES, FIRE, OPEN FLAMES AND SPARK SOURCES. Other Precautions: KEEP CONTAINERS TIGHT AND UPRIGHT TO PREVENT LEAKAGE. EMPTY CONTAINERS MUST BE HANDLED WITH CARE DUE TO PRODUCT RESIDUE AND FLAMMABLE VAPOR. DO NOT INCINERATE CLOSED CONTAINERS.
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Respiratory Protection:A RESPIRATOR IS RECOMMENDED OR APPROVED FOR USE IN AN ORGANIC VAPOR ENVIRONMENT (AIR PURIFYI NG OR FRESH AIR
SUPPLIED) IS NECESSARY. OBSERVE OSHA REGULATIONS FOR RESPIRATOR USE.
Ventilation:EXHAUST VENTILATION SUFFICIENT TO KEEP AIRBORNE CONCENTRATIONS OF SOLVENT, HDI AND POLYISOCYANATES BELOW THEIR RESPECTIVE TLVS.
Protective Gloves:PROTECTIVE GLOVES (COTTON, NEOPRENE, RUBBER, POLYETHYLENE)
Eye Protection: SPLASH GUARDS OR SIDE SHIELDS OR CHEMICAL GOGGLES OR FACE SHIELDS.
Other Protective Equipment: THE USE OF LONG SLEEVE AND LONG LEG CLOTHING IS RECOMMENDED.
Supplemental Safety and Health
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Boiling Pt:B.P. Text:213-330 DEG F Vapor Density:HEAVIER Spec Gravity:1.0072 VOC Pounds/Gallon:425 VOC Grams/Liter:8.39 Viscosity:THIN LIQUID TO HEAVY

Evaporation Rate & amp; Reference: 1.25 X N-BUTYL ACETATE

Appearance and Odor: AMBER LIQUID WITH SOLVENT ODOR

Solubility in Water:INSOLUBLE

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Percent Volatiles by Volume:50.2%

lity Indicator/Materials to Avoid:YES
WATER, AMINES, STRONG BASES, ALCOHOLS, METAL COMPOUNDS AND SURFACE ACTIVE MATERIALS.
Stability Condition to Avoid:CONTACT WITH MOISTURE, MATERIAL WHICH REACT WITH ISOCYANATES AND HIGH TEMPERATURES.
Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE, AND OXIDES OF NITROGEN.
Conditions to Avoid Polymerization:WILL NOT OCCUR.

Waste Disposal Methods:WASTE MUST BE DISP OSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

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