Product ID:TOLUENE MSDS Date:02/12/1993 FSC:6810 NIIN:00-281-2002 MSDS Number: BDSQB === Responsible Party === Company Name: ASHLAND CHEMICAL CO. Box:2219 City:COLUMBUS State:OH ZIP:43216 Country:US Info Phone Num:614-790-3333 Emergency Phone Num:800-274-5263 CAGE:34897 === Contractor Identification === Company Name: ASHLAND CHEMICAL CO Box:2219 City:COLUMBUS State:OH ZIP:4321 6-2219 Country:US Phone:614-790-3333/800-274-5263 CAGE:34897

Ingred Name:TOLUENE (SARA III) CAS:108-88-3 RTECS #:XS5250000 Fraction by Wt: 100% Other REC Limits:NONE RECOMMENDED OSHA PEL:200 PPM/150 STEL ACGIH TLV:50 PPM; 9293 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

LD50 LC50 Mixture:LD50 ORAL RAT IS UNKNOWN. Routes of Entry: Inhalation:YES Skin:YES I ngestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: SEVERE EYE IRRITATION, NASAL AND RESPIRATORY TRACT IRRITATION, CENTRAL NERVOUS SYSTEM EFFECTS, POSSIBLE UNCONSCIOUSNESS, EVEN DEATH. INGESTION CAN CAUSE GASTROINTESTINAL IRRITATION. ASPIRATION INTO LUNGS AFTER INGESTION CAN CAUSE CHEMICAL PNEUMONITIS AND DEATH. CHRONIC: LIVER, KIDNEY AND BRAIN DAMAGE.

Explanation of Carcinogenicity: TOLUENE MAY BE HARMFUL TO THE FETUS

BASED ON LABORATORY STUDIES.

Effects of Overexposure:EYES: BURNING, TEARING, REDNESS, SWELLING. SKIN: REDNESS, BRUNING, DRYING, CRACKING. INHALATION: DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, UNCONSCIOUSNESS, DEATH. INGESTION: NAUSEA, VOMITING, DI ARRHEA, AND SAME SYMPTOMS AS INHALATION.

Medical Cond Aggravated by Exposure:PREEXISTING EYE, SKIN, CENTRAL NERVOUS SYSTEM AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

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First Aid:EYES: FLUSH WITH PLENTY OF WATER FOR 15 MINUTES. SEE DOCTOR. SKIN: REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. SEE DOCTOR. INHALATION: REMOVE VICTIM TO FRESH AIR. GIVE OXYGEN/CPR IF NEEDED . SEE DOCTOR. INGESTION: DO NOT INDUCE VOMITING. GIVE VEGETABLE OIL OR CHARCOAL SLURRY. IF SPONTANEOUS VOMITING OCCURS, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION INTO LUNGS. SEE DOCTOR IMMEDIATELY.

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Flash Point Method:TCC Flash Point:=7.2C, 45.F

Lower Limits:1.2
Upper Limits:7.0
Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.
Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.

Unusual Fire/Explosion Hazard: VAPORS HEAVIER THA

N AIR. CAN TRAVEL ALONG GROUND AND FLAHSBACK. COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.
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Spill Release Procedures:ELIMINATE IGNITION SOURCES. VENTILATE AREA. WEAR PROPER PROTECTIVE EQUIPMENT. ABSORB IN INERT ABSORBENT AND TRANSFER TO HOOD. Neutralizing Agent:NOT APPLICABLE.
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<ul> <li>Handling and Storage Precaut</li> <li>ions:STORE IN COOL, DRY, WELL VENTILATED</li> <li>PLACE, AWAY FROM HEAT, IGNITION SOURCES AND INCOMPATIBLE MATERIALS.</li> <li>KEEP CONTAINERS CLOSED WHEN NOT IN USE.</li> <li>Other Precautions:AVOID BREATHING VAPORS, AND EYE AND SKIN CONTACT. USE</li> <li>ONLY WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY. EMPTY</li> <li>CONTAINERS RETAIN RESIDUE, TREAT THEM AS IF THEY WERE FULL.</li> </ul>
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Respiratory Protection:NONE NORMALLY REQUIRED WITH ADEQUATE VENTILA
TION. NIOSH/MSHA RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE APPROPIATE FOR EXPOSURE OF CONCERN OR SCBA IF TLV IS EXCEEDED. Ventilation:MECHANICAL (GENERAL) AND/OR LOCAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW TLV. USE EXPLOSION-PROOF EQUIPMENT. Protective Gloves:NEOPRENE GLOVES. Eye Protection:CHEMICAL SPLASH GOGGLES.
Other Protective Equipment:WORK CLOTHING TO PREVENT REPEATED OR PROLONGED SKIN CONTACT. EYE WASH STATION AND SAFETY SHOWER. Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING, LAUNDER
CONTAMINATED CLOTHING. DISCARD CONTAMINATED LEATHER GOODS. Supplemental Safety and Health
NEVER USE WELDING OR CUTTING TORCH NEAR THIS ITEM, BECAUSE PRODUCT, EVEN JUST RESIDUE, CAN IGNITE EXPLOSIVELY.
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HCC:F2 Boiling Pt:=111.1C, 232.F B.P. Text:232F,111C Vapor Pres:22 @ 68F Vapor Density:3.2 Spec Gravity:0.872 Evaporation Rate & amp; Reference:2.0 (BUTYL ACETATE = 1) Solubility in Water:INSOLUBLE Appearance and Odor:CLEAR COLORLESS LIQUID. BENZENE-LIKE ODOR. Percent Volatiles by Volume:100

Stability Indicator/Materials to Avoid:YES
 STRONG OXIDIZING AGENTS
 Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES
 OF IGNITION
 Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE, AND
 REACTIVE HYDROCARBONS (ALDEHYDES, AROMATICS, ETC.)

Waste Disposal Methods:CONSULT YOUR LOCAL ENVIRONMENTAL OFFICER. DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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