Product ID:3001850, TOLUENE MSDS Date:09/03/1999 FSC:6810 NIIN:00-281-2002 Status Code:A MSDS Number: CKGBJ === Responsible Party === Company Name: ASHLAND CHEMICAL CO Box:2219 City:COLUMBUS State:OH ZIP:43216 Country:US Info Phone Num:614-790-3333/ 800-325-3751 Emergency Phone Num:800-274-5263 Resp. Par ty Other MSDS Num.:301.0000565-010.009 CAGE:34897 === Contractor Identification === Company Name: ASHLAND CHEMICAL CO Box:2219 City:COLUMBUS State:OH ZIP:43216-2219 Country:US Phone:614-790-3333/800-274-5263 CAGE:34897 Company Name: DALDEN CORP Address:2923 SATURN ST SUITE C Box:City:BREA State:CA ZIP:92821 Country:US Phone:714-985-0117 Contract Num:SP0450-00-M-D948 CAGE:0EV88

Ingred Name:TOLUENE (SARA III) CAS:108-88-3 RTECS #:XS5250000 = Wt:10. 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 Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic: EYES: IRRITATION. SKIN: IRRITATION, BURNS. PROLONGED OR REPEATED CONTACT MAY DRY SKIN. ABSOR PTION BY SKIN IS POSSIBLE, BUT UNLIKELY WOULD RESULT IN HARMFUL EFFECTS DURING SAFE HANDLING AND USE. INHA LATION: BREATHING SMALL AMOUNTS DURING NORMAL HANDLING NOT LIKELY TO CAUSE HARMFUL EFFECTS; LARGE AMOUNTS MAY BE HARMFUL. SYMPTOMS USUALLY OCCUR AT AIR CONCENTRATIONS HIGHER THAN RECOMMENDED LIMITS. I NGESTION: SWALLOWING SMALL AMOUNTS DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS; LARGE AMOUNTS MAY BE HARMFUL. MATERIAL CAN GET INTO LUNGS D URING SWALLOWING OR VOMITING, RESULTING IN LUNG INFLAMATION OR OTHER LUNG INJURY. Explanation of Carcinogenicity: THIS MATERIAL IS NOT LISTED AS A CARCINOGEN BY NTP, IARC, OSHA. Effects of Overexposure: EYES: IRRITATION, STINGING, TEARING, REDNESS, AND SWELLING OF EYES. SKIN: IRRITATION, REDNESS, BURNING, DRYING,

AND CRACKING OF SKIN AND BURNS. INHALATION, INGESTION, ABSORPTION THROUGH SKIN: METALLI C TASTE, STOMACH OR INTESTINAL UPSET (NAUSEA, VOMITING, DIARRHEA), IRRITA

TION (NOSE, THROAT, AIRWAYS), CENTRAL NERVOUS SYSTEM DEPRESSION (DIZZINESS, DROWSINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, U NCONSCIOUSNESS) AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, TEMPORARY CHANGES IN MOOD AND BEHAVIOR, MUCLE WEAKNESS, LOSS OF COORDINATION, CONFUSION, IRREGULAR HEARTBEAT, COMA, AND DEATH.

Medical Cond Aggravated by Exposure:PREEXISTING DISORDERS OF FOLLOWING SYSTEMS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL: RESPIRATORY TRACT, SKIN, LUNG, K

IDNEYS, CNS, AUDITORY SYSTEM. INDIVIDUALS WITH PREEXISTING HEART DISORDERS.

First Aid:EYES: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS APART. GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH SKIN WITH SOAP AND WATER. SEE DOCTOR. INHALATION: MOVE VICTIM TO FRES H AIR. GIVE ARTIFICIAL RESPIRATION NOT BREATHING. GIVE OXYGEN IF BREATHING DIFFICULT. GET MEDICAL ATTENTION. INGESTION: IF

DROWSY OR UNCONSCIOUS, DO NOT GIVE ANYTHING BY MOUTH. PLACE VICTIM ON LEFT SI DE WITH HEAD DOWN. GET MEDICAL ATTENTION OR CONTACT POISON CONTROL CENTER FOR ADVICE ON WHETHER TO INDUCE VOMITING.

Flash Point Method:TCC Flash Point:=7.2C, 45.F Autoignition Temp:=480.C, 896.F Lower Limits:NO DATA Upper Limits:NO DATA Extinguishing Media: REGULAR FOAM, CARBON DIOXIDE, DRY CHEMICAL. Fire Fighting Procedures:WEAR A SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERAATED IN THE POSITIVE PRESSURE DEMAND MODE WITH APPROPRIATE TURN-OUT GEAR AND CHEMICAL RESISTANT PERSONAL PROTECTIVE EQUIPMENT. WATE R MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL UNTIL FIRE IS OUT. Unusual Fire/Explosion Hazard: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG GROUND OR MAY BE MOVED BY VENTILTION AND IGNITED BY AN IGNITION SOURCES AT DISTANT LOCATIONS AND FLAHSBACK. COMBUSTION OR HEAT OF FIRE

MAY PRODUCE HAZA RDOUS DECOMPOSITION PRODUCTS, CARBON MONOXIDE, CARBON DIOXIDE, VARIOUS HYDROCARBONS.

Spill Release Procedures: ELIMINATE IGNITION SOURCES. VENTILATE AREA. WEAR PROPER PROTECTIVE EQUIPMENT. STOP SPILL. PREVENT FROM ENTERING DRAINS, SEWERS, STREAMS, OR OTHER BODIES OF WATER. PREVENT FROM SPREADING. IF RUNOFF OCU RS, NOTIFY AUTHORITIES THAT A SPILL HAS OCCURRED. PUMP OR VACUUM SPILLED PRODUCT

TO CLEAN CONTAINERS FOR RECOVERY. ABSORB RESIDUE. TRANSFER RESIDUE, SOIL, OTHER MATERIALS TO CONTAINERS FOR DISOPOSAL. Neutralizing Agent:NOT APPLICABLE.

Handling and Storage Precautions: EMPTY CONTAINERS MAY BE HAZARDOUS SINCE THEY CONTAIN RESIDUES (VAPOR, LIQUID, AND/OR SOLIDS). ALL HAZARDPRE CAUTIONS IN DAT SHEET MUST BE OBSERVED. GROUND AND/OR BOND ALL METAL CONTAINERS (5 GALLONS A ND OVER INCLUDING TAN K CARS

AND TRUCKS) WHEN MATERIAL IS TRANSFERRED.

Other Precautions: KEEP AWAY FROM HEAT, SPARKS, FLAMES. DO NOT CUT, PUNCTURE, OR WELD ON OR NEAR CONTAINER. DO NOT RE-USE CONTAINER FOR ANY PURPOSE UNTIL COMMERCIALLY CLEANED. FOR INDUSTRIAL USE ONLY. USE OF THIS PRODUC T IN ELEVATED TEMPERATURE PROCESSES SHOULD BE THOROUGHLY EVALUATED TO ESTABLISH AND MAINTAIN SAFE OP ERATING CONDITIONS.

Respiratory Prote

ction:IF WORKPLACE EXPOSURE LIMITS ARE EXCEEDED, A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATOR S (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR HYGIENIST). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE. Ventilation:PROVIDE ADEQUATE MECHANICAL (GENERAL AND/OR LOCAL EXHAUST)

VENTILATION TO MAINTAIN EXPOSURE BELOW T

LV(S). EXPLOSION-PROOF

SYSTEM IS ACCEPTABLE.

Protective Gloves:WEAR RESISTANT GLOVES SUCH AS POLYVINYL ALCOHOL. Eye Protection:CHEMICAL SPLASH GOGGLES.

Other Protective Equipment: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING. LAUNDER CONTAMINATED CLOTHING. DISCARD CONTAMINATED LEATHER GOODS. Supplemental Safety and Health

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CC:F2 Boiling Pt:=111.1C, 232.F B.P. Text:232F,111C Melt/Freeze Pt:=-95.C, -139.F Vapor Pres:16.7 MMHG@68F Vapor Density:3.2 Volatile Org Content %:100 Spec Gravity:0.870 (7.25 LBS/GAL) pH:NO DATA Viscosity: