

## STARTEX CHEMICAL INC -- TOLUENE -- 6810-00-281-2002

## ===== Product Identification =====

Product ID:TOLUENE  
MSDS Date:11/01/1999  
FSC:6810  
NIIN:00-281-2002  
Status Code:A  
MSDS Number: CJZRX  
=== Responsible Party ===  
Company Name:STARTEX CHEMICAL INC  
Address:5 HACKBERRY LANE  
Box:3087  
City:CONROE  
State:TX  
ZIP:77305  
Country:US  
Info Phone Num:409-539-6244  
Emergency Phone Num:(800)424-9300  
Preparer's Name:NOT PROVIDED.  
Chemtrec Ind/Phone:(800)424-9300  
CAGE:0YFV5  
=== Contractor Identification ===  
Company Name:CHEMICAL SPECIALISTS AND DEVELOPMENT INC  
Address:2210 HACKBERRY LN  
Box:687  
City:CONROE  
State:TX  
ZIP:77305  
Country:US  
Phone:409-756-1065  
Contract Num:SP0450-00-M-D475  
CAGE:4N760  
Company Name:STARTEX CHEMICAL INC  
Address:5 HACKBERRY LANE  
Box:3087  
City:CONROE  
State:TX  
ZIP:77305  
Country:US  
Phone:409-539-6244  
CAGE:0YFV5

## ===== Composition/Information on Ingredients =====

Ingred Name:TOLUENE  
CAS:108-88-3  
RTECS #:XS5250000  
> Wt:99.  
Other REC Limits:NOT PROVIDED.  
OSHA PEL:200 PPM  
OSHA STEL:C 300 PPM  
ACGIH TLV:188 MG/M3;50 PPM  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

## ===== Hazards Identification =====

LD50 LC50 Mixture:NOT PROVIDED.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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

Health Hazards Acute and Chronic:EYES: MAY CAUSE SEVERE IRRITATION, BLURRED VISION AND CONJUNCTIVITIS. SKIN: PROLONGED OR REPEATED CONTACT MAY CAUSE MODERATE IRRITATION, DEFATTING, ITCHING, INFLAMMATION, DERMATITIS AND INFECTION. HIGH PRESSURE SKIN INJECTIONS ARE SERIOUS MEDICAL EMERGENCIES. INHALATION: NASAL AND RESPIRATORY IRRITATION, CENTRAL NERVOUS SYSTEMS (CNS) EFFECTS INCLUDING; EXCITATION, EUPHORIA, DIZZINESS, DROWSINESS, HEADACHE, LOSS OF REFLEXES, SEIZURES, LOSS OF CONSCIOUSNESS, IRREGULAR HEART RHYTHM, RESPIRATORY ARREST AND SUDDEN DEATH COULD OCCUR. INGESTION: MAY BE HARMFUL OR FATAL IF SWALLOWED. ASPIRATION HAZARD . MAY CAUSE HARMFUL CNS EFFECTS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:EYES: SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION. SKIN: MODERATE IRRITATION, DEFATTING, ITCHING, INFLAMMATION, DERMATITIS, POSSIBLY SECONDARY INFECTION, SWOLLEN TISSUE AND PAIN IF INJECTED UNDER SKIN. INHALATION: IRRITATION, CENTRAL NERVOUS SYSTEMS EFFECTS INCLUDING; EXCITATION, EUPHORIA, CONTRACTED EYE PUPILS, DIZZINESS, DROWSINESS, BLURRED VISION, FATIGUE, HEADACHE, LOSS OF REFLEXES, TREMORS, CONVULSIONS, SEIZURES, LOSS OF CONSCIOUSNESS, IRREGULAR HEART RHYTHM, RESPIRATORY ARREST AND SUDDEN DEATH. INGESTION: CNS EFFECTS SIMILAR TO INHALATION AND LUNG DAMAGE IF ASPIRATED.

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

===== First Aid Measures =====

First Aid:EYES: FLUSH IMMEDIATELY WITH LARGE AMOUNT OF WATER FOR AT LEAST 15 MINUTES, KEEPING EYELIDS AWAY FROM EYEBALL. SEEK MEDICAL ADVICE IF PAIN OR REDNESS CONTINUES. SKIN: WASH EXPOSED AREA THOROUGHLY WITH SOAP AND WATER. GET MEDICAL ADVICE IF IRRITATION OCCURS. IF INJECTED UNDER SKIN, GET IMMEDIATE MEDICAL ATTENTION. INHALATION: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION. INGESTION: NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DO NOT INDUCE VOMITING. GIVE VEGETABLE OIL OR CHARCOAL SLURRY. SEEK IMMEDIATE MEDICAL ATTENTION.

===== Fire Fighting Measures =====

Flash Point:=4.4C, 40.F

Autoignition Temp:=480.C, 896.F

Lower Limits:1.2

Upper Limits:7.1

Extinguishing Media:FLAMMABLE LIQUID. USE DRY CHEMICAL, FOAM OR CARBON DIOXIDE TO EXTINGUISH THE FIRE. CONSULT FOAM MANUFACTURER FOR APPROPRIATE MEDIA, APPLICATION RATES AND WATER/FOAM RATIO.

Fire Fighting Procedures:DO NOT ENTER ANY ENCLOSED OR CONFINED SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT, WHICH MAY INCLUDE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE MASK. IF A LEAK HAS NOT IGNITED, VENTILATE AREA AND USE WATER SPRAY TO DISPERSE GAS OR VAPOR AND TO PROTECT PERSONNEL. USE WATER TO FLUSH SPILLS AWAY.

Unusual Fire/Explosion Hazard:DANGEROUS WHEN EXPOSED TO HEAT OR FLAME. VAPORS FORM FLAMMABLE OR EXPLOSIVE MIXTURES WITH AIR AT ROOM TEMPERATURE. VAPOR OR GAS MAY SPREAD TO DISTANT IGNITION SOURCES

(PILOTLIGHTS, WELDING EQUIPMENT, ELECTRICAL EQUIPMENT, ETC) AND FLASH BACK. VAPORS MAY ACCUMULATE IN LOW AREAS. VAPORS MAY CONCENTRATE IN CONFINED AREAS.

===== Accidental Release Measures =====

Spill Release Procedures:WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION. EXTREMELY FLAMMABLE. KEEP ALL SOURCES OF IGNITION AND HOT SURFACES AWAY FROM RELEASE. CONTAIN SPILL. RECOVER AS MUCH AS POSSIBLE . STOP LEAK IF IT CAN BE DONE WITHOUT RISK. SPILLED MATERIAL MAY BE ABSORBED BY AN APPROPRIATE ABSORBENT AND HANDLED IN ACCORDANCE WITH ENVIRONMENTAL REGULATIONS. PREVENT ENTRY TO SEWERS, DRAINS.

Neutralizing Agent:NOT RELEVANT.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN TIGHTLY CLOSED CONTAINERS IN COOL, DRY, ISOLATED & WELL VENTILATED AREA AWAY FROM HEAT, SOURCES OF IGNITION & INCOMPATIBLE MATERIALS. USE NON-SPARKING TOOLS & EXPLOSION PROOF EQUIPMENT. GROUND LINES, CONTAINER, & OTHER EQUIPMENT USED DURING PRODUCT TRANSFER.

Other Precautions:CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

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

Respiratory Protection:IF WORKPLACE EXPOSURE LIMITS FOR PRODUCT OR COMPONENTS ARE EXCEEDED, NIOSH EQUIPMENT SHOULD BE WORN. PROPER RESPIRATOR SELECTION SHOULD BE DETERMINED BY ADEQUATELY TRAINED PERSONNEL, BASED ON THE CONTAMINANTS, THE DEGREE OF POTENTIAL EXPOSURE & PUBLISHED RESPIRATORY PROTECTION FACTORS. THIS EQUIPMENT SHOULD BE AVAILABLE FOR NON-ROUTINE AND EMERGENCY USE.

Ventilation:AVOID BREATHING MISTS AND VAPOR. IN CONFINED SPACE, MECHANICAL VENTILATION MAY BE NECESSARY TO REDUCE VAPOR CONCENTRATIONS BELOW ALLOWABLE EXPOSURE LIMITS.

Protective Gloves:NEOPRENE, NITRILE RUBBER, ETC.

Eye Protection:SAFETY GLASSES AND CHEMICAL SPLASH GOGGLES.

Other Protective Equipment:WHERE NECESSARY IMPERVIOUS CLOTHING AND BOOTS. LEATHER GOODS CONTAMINATED WITH THIS PRODUCT SHOULD BE DISCARDED. A SOURCE OF CLEAN WATER SHOULD BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN.

Work Hygienic Practices:NOT PROVIDED.

Supplemental Safety and Health

EMPTY CONTAINERS MAY CONTAIN TOXIC FLAMMABLE/COMBUSTIBLE OR EXPLOSIVE RESIDUES OR VAPORS. DO NOT CUT, GRIND, DRILL, WELD OR REUSE EMPTY CONTAINERS THAT CONTAIN THIS PRODUCT. DO NOT TRANSFER THIS PRODUCT TO ANOTHER CONTAINER UNLESS THE CONTAINER IS LABELED WITH DOT SHIPPING NAME, HAZARD CLASS.

===== Physical/Chemical Properties =====

HCC:F2

NRC/State Lic Num:NOT RELEVANT.

Boiling Pt:=110.C, 230.F

Melt/Freeze Pt:M.P/F.P Text:NOT APPLICABLE.

Decomp Temp:Decomp Text:NOT PROVIDED.

Vapor Pres:1.05 PSI@100F

Vapor Density:3.1  
Spec Gravity:0.87@60F  
pH:NOT RELEVANT.  
Viscosity:NOT PROVIDED.  
Evaporation Rate & Reference:NOT PROVIDED.  
Solubility in Water:NEGLIGIBLE (0.1%)  
Appearance and Odor:COLORLESS LIQUID WITH AROMATIC HYDROCARBON ODOR.  
Percent Volatiles by Volume:100  
Corrosion Rate:NOT PROVIDED.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
STRONG OXIDIZING AGENTS (PEROXIDE, DICHRIMATE, PERMANGANATE, CHLORINE,  
ETC.), STRONG ACIDS, CAUSTICS AND HALOGENS.  
Stability Condition to Avoid:HEAT, SPARKS, OPEN FLAMES, STATIC  
ELECTRICITY OF ANY OTHER POTENTIAL IGNITION SOURCES SHOULD BE  
AVOIDED. PREVENT VAPOR ACCUMULATION. DO NOT SWITCH LOAD.  
Hazardous Decomposition Products:COMBUSTION MAY PRODUCE CARBON  
MONOXIDE, CARBON DIOXIDE AND REACTIVE HYDROCARBONS (ALDEHYDES,  
AROMATICS, ETC.).  
Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:TOLUENE CAN EFFECT THE BODY IF IT IS INHALED,  
COMES IN CONTACT WITH THE EYES OR SKIN OR IT IS SWALLOWED. IT MAY  
ALSO ENTER THE BODY THROUGH THE SKIN. TOLUENE VAPORS CAUSE  
NARCOSIS. EXPOSURE TO 200 PPM FOR 8 HOURS PRODUCED MILD FATIGUE,  
WEAKNESS, CONFUSION, LACRIMATION. AT 600 PPM FOR 8 HOURS, THERE WAS  
EUPHORIA, HEADACHE, DIZZINESS, DILATED PUPILS AND NAUSEA. AT 800  
PPM FOR 8 HOURS, SYMPTOMS WERE MORE PRONOUNCED AND INSOMNIA  
PERSISTED FOR SEVERAL DAYS. MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS  
BASED ON ANIMAL TESTING.

===== Ecological Information =====

Ecological:NOT PROVIDED.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF MATERIAL IN ACCORDANCE WITH LOCAL,  
COUNTY, STATE AND FEDERAL REGULATION. CONTACT STATE AND FEDERAL  
REGULATORS TO DETERMINE WHETHER THE MATERIAL SHOULD BE CLASSIFIED  
AS A HAZARDOUS WASTE OR INDUSTRIAL WASTE AND HANDLED ACCORDINGLY.  
USE LICENSED TRANSPORTER AND DISPOSAL FACILITY.

===== MSDS Transport Information =====

Transport Information:TOLUENE, 3 (FLAMMABLE LIQUID), UN1294/II.  
REPORTABLE QUANTITY: 1000 LBS.

===== Regulatory Information =====

SARA Title III Information:NOT PROVIDED.  
Federal Regulatory Information:NOT PROVIDED.  
State Regulatory Information:THIS PRODUCT CONTAINS BENZENE AND TOLUENE,  
CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS  
AND OTHER REPRODUCTIVE HARM.

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