

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

=== Co

ntractor 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 RE

C 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 M

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,  
FAT

IGUE, 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 WA  
TER/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. GROUN D 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 OBSERV ED.

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

Respirator  
y Protection:IF WORPLACE 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 CONTA MINANTS, 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 T  
O 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

RS 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:N  
OT 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, DICHROMATE, PERMAN  
GANATE, 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 Inform

ation =====

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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