

Safety Data Sheet

Date Authored: July 25, 2012 **Date Issued:** July 9, 2013

Section I - Chemical Product and Company Identification

Material Name: T-6101 HMIS: 3-3-0-C

Chemical Family: None CAS Reg. No.: None

Function: Scale Inhibitor, Corrosion Inhibitor **Distributor:** Danlin Industries Corporation

Physical Address: 23737 Hwy 47 Mailing Address: P. O. Box 307

Thomas, OK 73669 Thomas, OK 73669

Prepared By: Danlin Industries Corporation

Section II - Hazards Identification

Emergency Overview: DANGER

HIGHLY FLAMMABLE LIQUID AND VAPOR

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS

CAUSES SKIN IRRITATION

CAUSES SERIOUS EYE IRRITATION

HARMFUL IF INHALED

MAY CAUSE GENETIC DEFECTS SUSPECTED OF CAUSING CANCER

MAY DAMAGE FERTILITY OR THE UNBORN CHILD

HARMFUL TO AQUATIC LIFE

Primary Routes of Exposure: EYE CONTACT, SKIN ABSORPTION AND CONTACT, INGESTION, INHALATION

Precautionary Overview:

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces - No Smoking.

Ground/bond container and receiving equipment.

Use explosion-proof equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Use agents approved for Class B hazards (i.e. water fog, foam, dry chemical, carbon dioxide) for extinction.

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional regulation.



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Eye Contact: May cause eye irritation, burns.

Skin Contact: May cause skin irritation, sensitization.

Inhalation: May cause irritation of respiratory tract, decreased breathing capacity.

Ingestion: May be poisonous or fatal if swallowed.

Target(Organs): CNS, Liver, Kidneys

Systems(Affected): CNS, Liver, Kidneys, Skin, Respiratory

Carcinogenicity: NTP: No IARC Monographs: No OSHA Regulated: No

Section III -Hazardous Ingredients							
Components	Wt.	CAS#	OSH	OSHA		GIH	OTHER
	%		PEL	STEL	TWA	STEL	
Petroleum distillates	< 70	64742-95-6	NA	NA	100ppm	NA	
1,2,4-Trimethylbenzene	<25	95-63-6	25ppm	NA	25ppm	NA	
Xylene	< 5	1330-20-07	100ppm	NA	100ppm	150ppm	RQ 100
Cumene	<1	98-82-8	50ppm	NA	50ppm	NA	RQ 5000
2-Butoxyethanol*	< 5	111-76-2	50ppm	NA	20ppm	NA	N230
Alkyl dimethyl benzyl							
ammonium chloride	< 5	68424-85-1	NA	NA	NA	NA	
Isopropanol	< 5	67-63-0	400ppm	NA	200ppm	400ppm	
Kerosene	< 5	8008-20-6	NA	NA	NA	NA	
Methanol	< 5	67-56-1	200ppm	NA	200ppm	250ppm	RQ 5000
Ethanol	<1	64-17-5	1000ppm	NA	NA	1000ppm	

^{*} Belongs to broad or generic class of Glycol Ethers with no assigned RQ, but classified as CERCLA hazardous substances.

Section IV - First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Get immediate medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing, including shoes. Thoroughly clean clothing and shoes before reuse. Get medical attention.

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Keep victim warm and Get immediate medical attention.

Ingestion: If swallowed, do <u>not</u> induce vomiting. Keep victims head below knee level to prevent vomit from aspiration into lungs. Get immediate medical attention. *NOTE*: Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN:

For Methanol: Western Journal of Medicine, March 1985, page 337 reports that when plasma methanol concentrations are higher than 20 mg/deciliter, when ingested doses are greater than 30 milliliters, and when there is evidence of acidosis or visual abnormalities, a 10% solution of ethanol in 5% aqueous dextrose, administered intravenously, is a safe and effective antidote.

Section V - Fire Fighting Measures

Extinguishing Media. Agents approved for Class B hazards, (i.e., water fog, foam, dry chemical, carbon dioxide).

Special Fire Fighting Procedures. Do not enter confined space without full bunker gear and self contained breathing apparatus.

Treat as Class B oil fire. Keep sealed containers cool with water spray.

Unusual Fire and Explosion Hazards. Flammable liquid. Vapor may explode if ignited in enclosed area. Containers may explode from internal pressure if confined to fire. Cool with water.

Section VI - Accidental Release Measures

Steps To Be Taken In Case Material is Released or Spilled: Responders should wear PPE. Evacuate all unnecessary personnel from area. Remove or shut off all sources of ignition. Increase ventilation if possible. Stop leak if possible. Spilled material should be contained and removed by mechanical means, such as, absorbing with inert material and placing it in a properly labeled waste receptacle. Do not let run off water go to lakes, streams, etc.

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Section VII - Handling and Storage

Precautions To Be Taken In Handling and Storing: Use appropriate PPE as outlined in Section VIII. Keep away from ignition sources (e.g., heat, sparks, flames, etc.). Keep container closed. Ground and bond containers when transferring liquids. Use with adequate ventilation. Do not breathe vapors. Do not cut, puncture, or weld on or near this container.

Store away from oxidizer or other materials bearing a yellow "D.O.T." label.

Section VIII - Exposure Controls/Personal Protective Measures					
Components	List	Туре	Value		
Petroleum distillates	ACGIH	TWA	100ppm		
1,2,4-Trimethylbenzene	ACGIH	TWA	25ppm		
	OSHA	TWA	25ppm		
2-Butoxyethanol*	ACGIH	TWA	20ppm		
	ACGIH	Notation:	Confirmed Animal Carcinogen with Unknown Relevance to		
			Humans		
	OSHA	TWA	50ppm		
	OSHA	Notation	Skin		
Isopropanol	ACGIH	TWA	200ppm		
	ACGIH	STEL	400ppm		
	OSHA	TWA	400ppm		
Methanol	ACGIH	TWA	200ppm		
	ACGIH	STEL	250ppm		
	ACGIH	Notation:	End of shift, Methanol in urine 15 mg/L; SKIN		
	OSHA	TWA	200ppm		
Xylene	ACGIH	TWA	100ppm		
	ACGIH	STEL	150ppm		
	ACGIH	Notation:	Not Classifiable as a Human Carcinogen; End of shift,		
			Methylhippuric acids in urine 1.5 g/g creatinie		
	OSHA	TWA	100ppm		
Cumene	ACGIH	TWA	50ppm		
	OSHA	TWA	50ppm		
	OSHA	Notation	Skin		
Ethanol	ACGIH	STEL	1000ppm		
	OSHA	TWA	1000ppm		

Respiratory Protection: Use OSHA/NIOSH/MSHA approved air supplied respirator for organic vapors. Entry into confined space requires self contained positive breathing apparatus.

Ventilation: Local Exhaust: Yes, equal to fresh air

Mechanical Exhaust:Exhaust fan recommended to control exposure levels.Special:Control airborne concentrations below exposure guidelines.

Personal Protective Equipment: Chemical resistant gloves (polyvinyl alcohol or Buna-N), chemical splash goggles, chemical resistant footwear, and chemical resistant aprons are recommended when handling the product.

Other Protective Equipment: Eye wash and safety showers should be readily available

Work and Hygienic Practices: Avoid breathing chemicals, wash hands before eating, drinking or smoking

Section IX - Physical and Chemical Properties

Appearance/Odor: Clear Amber/Solvent State: NA Liquid Specific Gravity (g/ml): 0.849 to 0.929 Solubility in Water: Not Soluble **Boiling Point: Pour Point:** 158°F <-40°F Flash Point: 70°F Viscosity(cps): N/D **UEL** (Calculated): 22.1% Vapor Pressure: N/D LEL (Calculated): 3% **Evaporation Rate:** N/D **Auto-ignition Temperature:** N/D Vapor Density: N/D **Decomposition Temperature:** N/D n-Octanol/Water N/D

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Section X - Stability and Reactivity

Chemical Stability Stable

Conditions to Avoid Ignition sources, eg., sparks and flame

Incompatible Materials

Strong oxidizing agents (bromine, chlorine, hydrogen peroxide, etc.) and strong bases

Decomposition Products

Thermal Decomposition: Carbon dioxide, carbon monoxide, smoke and oxides of nitrogen

Hazardous Polymerization Will not occur

Section XI - Toxicological Information

No specific toxicity tests have been conducted on this product. Components have shown to be toxic.

<u>1,2,4-TRIMETHYL BENZENE</u> - Moderately toxic by intraperitoneal route. Mildly toxic by inhalation. Can cause central nervous system depression, anemia, bronchitis.

TOXICITY DATA:

 $\it Oral-Rat$ LD50: 5 g/kg; $\it Inhalation-Rat$ LC₅₀: 18 g/m³/4H; $\it Intraperitoneal-Rat$ LDLo: 1752 mg/kg; $\it Intraperitoneal-Guinea$ $\it Pig$, adult LDLo: 1788 mg/kg

2-BUTOXYETHANOL (GLYCOL ETHER EB) - Poison by ingestion, skin contact, intraperitoneal, and intravenous routes. Moderately toxic via inhalation and subcutaneous routes. Human systemic effects by inhalation: nausea or vomiting, headache, nose tumors, unspecified eye effects. Experimental teratogenic and reproductive effects. A skin irritant.

TOXICITY DATA:

Skin-Rabbit, adult 500 mg open Mild irritation effects; Inhalation-Rat TCLo:200 ppm/6H (female 6-15D post): Reproductive effects Inhalation-Rabbit, adult TCLo:100 ppm/6H (female 6-18D post): Teratogenic effects; Oral-Woman TDLo:600 mg/kg; Inhalation-Human TCLo:195 ppm/8H: Gastrointestinal tract effects; Inhalation-Human TCLo:100 ppm: NOSE, Eye effects, Central nervous system effects; Oral-Rat LD₅₀: 470 mg/kg; Inhalation-Rat LC₅₀: 2900 mg/m³; Intraperitoneal-Rat LD50: 220 mg/kg; Intravenous-Rat LD50: 340 mg/kg; Inhalation-Mouse LC₅₀: 700 ppm/7H; Subcutaneous-Mouse LDLo: 500 mg/kg; Oral-Rabbit, adult LD₅₀: 300 mg/kg; Skin-Guinea Pig, adult LD50: 230 mg/kg

<u>CUMENE</u> - Moderately toxic by ingestion. Mildly toxic by inhalation and skin contact. Human systemic effects by inhalation: an antipsychotic, unspecified changes in the sense of smell and respiratory system. An eye and skin irritant. Potential narcotic action. Central nervous system depressant. There is no apparent difference between the toxicity of natural cumene and that derived from petroleum

TOXICITY DATA:

Skin-Rabbit, adult 10 mg/24H open Mild irritation effects; Skin-Rabbit, adult 100 mg/24H Moderate irritation effects; Eye effects-Rabbit, adult 86 mg Mild irritation effects; Eye effects-Rabbit, adult 500 mg/24H Mild irritation effects; Inhalation-Human TCLo:200 ppm:NOSE,Central nervous system effects,Pulmonary system effects; Oral-Rat LD50:1400 mg/kg; Inhalation-Rat LC50:8000 ppm/4H; Inhalation-Mouse LC50:24,700 mg/m3/2H

ETHYL ALCOHOL (ETHANOL) - Confirmed human carcinogen for ingestion of beverage alcohol. Experimental tumorigenic and teratogenic data. Moderately toxic to humans by ingestion. Moderately toxic experimentally by intravenous and intraperitoneal routes. Mildly toxic by inhalation and skin contact. Human systemic effects by ingestion and subcutaneous routes: sleep disorders, hallucinations, distorted perceptions, convulsions, motor activity changes, ataxia, coma, antipsychotic, headache, pulmonary changes, alteration in gastric secretion, nausea or vomiting, other gastrointestinal changes, menstrual cycle changes, and body temperature decrease. Can also cause glandular effects in humans. Human reproductive effects by ingestion, intravenous, and intrauterine routes: changes in female fertility index. Effects on newborn include: changes in Apgar score, neonatal measures or effects, and drug dependence. Experimental reproductive effects. Human mutation data reported. An eye and skin irritant.

The systemic effect of ethanol differs from that of methanol. Ethanol is rapidly oxidized in the body to carbon dioxide and water, and, in contrast to methanol, no cumulative effect occurs. Though ethanol possesses narcotic properties, concentrations sufficient to produce this effect are not reached in industry. Concentrations below 1000 ppm usually produce no signs of intoxication. Exposure to concentrations over 1000 ppm may cause headache, irritation of the eyes, nose, and throat, and, if continued for an hour, drowsiness and lassitude, loss of appetite, and inability to concentrate. There is no concrete evidence that repeated exposure to ethanol vapor results in cirrhosis of the liver. Ingestion of large doses can cause alcohol poisoning. Repeated ingestions can lead to alcoholism. It is a central nervous system depressant.

TOXICITY DATA:

Skin-Rabbit, adult 20 mg/24H Moderate irritation effects; Skin-Rabbit, adult 500 mg/24H Severe irritation effects; Eye effects-Rabbit, adult 100 mg/24H Mild irritation effects; Eye effects-Rabbit, adult 100 mg/4S rns Moderate irritation effects; Mutation in Microorganisms-Escherichia coli 140 g/L; DNA Inhibition-Human: lymphocyte 220 mmol/L Cytogenetic Analysis-Mouse-Oral 40 g/kg; Oral-Woman TDLo:41 g/kg (41W preg): Reproductive effects; Oral-Rat TDLo:4 g/kg (13D preg): Teratogenic effects; Oral-Mouse TDLo:320 mg/kg/50W-I: Equivocal tumorigenic agent; Rectal-Mouse TDLo:120 g/kg/18W-I: Equivocal tumorigenic agent; Oral-Mouse TDLo: 2000 mg/kg; Oral-cld TDLo: 14,400 mg/kg/30M-I; Oral-Man TDLo: 700 mg/kg; Oral-Human LDLo: 1400 mg/kg; Oral-Man TDLo: 50 mg/kg: Gastrointestinal tract effects; Oral-Man TDLo: 1430 mg/kg: Central nervous system effects; Oral-Woman TDLo: 256 g/kg/12W: Central nervous system effects, END Subcutaneous-Infant LDLo: 19,440 mg/kg: Central nervous system effects, MET; Oral-Rat LD₅₀: 7060 mg/kg; Inhalation-Rat LC₅₀: 20,000 ppm/10H; Intraperitoneal-Rat LD₅₀: 3750 mg/kg; Intravenous-Rat LD₅₀: 1440 mg/kg; Oral-Mouse LD₅₀: 933 mg/kg; Subcutaneous-Mouse LD₅₀: 8285 mg/kg; Intravenous-Mouse LD₅₀: 1973 mg/kg; Oral-Dog, adult LDLo: 5500 mg/kg; Intraperitoneal-Dog, adult LDLo: 3000 mg/kg; Subcutaneous-Dog, adult LDLo: 6000 mg/kg

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ISOPROPYL ALCOHOL (2 **PROPANOL**, sec-PROPYL ALCOHOL) - Moderately toxic to humans by an unspecified route. Moderately toxic experimentally by intravenous and intraperitoneal routes. Mildly toxic by skin contact. Human systemic effects by ingestion or inhalation: flushing, pulse rate decrease, blood pressure lowering, anesthesia, narcosis, headache, dizziness, mental depression, hallucinations, distorted perceptions, dyspnea, respiratory depression, nausea or vomiting, coma. Experimental teratogenic and reproductive effects. Mutation data reported. An eye and skin irritant. Ouestionable carcinogen.

The single lethal dose for a human adult is about 250 mL, although as little as 100 mL can be fatal. It can cause corneal burns and eye damage. Acts as a local respiratory irritant and in high concentration as a narcotic. It has good warning properties because it causes a mild irritation of the eyes, nose, and throat at a concentration level of 400 ppm. It may induce a mild narcosis, the effects of which are usually transient, and it is somewhat less toxic than the normal isomer, but twice as volatile.

There is some evidence that humans can acquire a slight tolerance to this material. It is absorbed by the skin, but single or repeated applications on the skin of rats, rabbits, dogs, or human beings induced no untoward effects. It acts very much like ethanol in regard to absorption, metabolism, and elimination but with a stronger narcotic action. Chronic injuries have been detected in animals. Workers producing isopropanol show an excess of sinus and laryngeal cancers. This may be caused, completely or in part, by the by-product, isopropyl oil. Humans have ingested up to 20 mL diluted with water and noticed only a sensation of heat and slight lowering of the blood pressure. There are, however, reports of serious illness from as little as 10 mL taken internally.

TOXICITY DATA:

Skin-Rabbit, adult 500 mg Mild irritation effects; Eye effects-Rabbit, adult 16 mg; Eye effects-Rabbit, adult 10 mg Moderate irritation effects; Cytogenetic Analysis-Saccharomyces cerevisiae 200 mmol/tube; Cytogenetic Analysis-Rat-Inhalation 1030 mg/m3/16W-I; Oral-Rat TDLo:6480 mg/kg (male 26W pre):Reproductive effects; Inhalation-Rat TCLo: 10,000 ppm/7H (female 1-19D post): Teratogenic effects; Oral-Man TDLo: 14,432 mg/kg: Central nervous system effects, Cardiovascular effects, Pulmonary system effects; Oral-Human TDLo: 223 mg/kg: Central nervous system effects, Cardiovascular effects; Oral-Man LDLo: 5272 mg/kg; Oral-Human LDLo: 3570 mg/kg: Central nervous system effects, Gastrointestinal tract effects; Unreported-Man LDLo: 2770 mg/kg; Oral-Rat LD₅₀: 5045 mg/kg; Inhalation-Rat LCLo: 16,000 ppm/4H; Intraperitoneal-Rat LD₅₀: 2735 mg/kg; Intravenous-Rat LD₅₀: 1099 mg/kg; Oral-Mouse LD₅₀: 3600 mg/kg; Inhalation-Mouse LCLo: 12,800 ppm/3H; Intraperitoneal-Mouse LD₅₀: 4477 mg/kg; Subcutaneous-Mouse LDLo: 6000 mg/kg;Intravenous-Mouse LD₅₀: 1509 mg/kg; Oral-Dog, adult LD₅₀: 4797 mg/kg; Intravenous-Dog, adult LDLo: 5120 mg/kg; Intravenous-Cat, adult LDLo: 1963 mg/kg; Oral-Rabbit, adult LD₅₀: 12,800 mg/kg

KEROSENE - Suspected carcinogen. Poison by intravenous and intratracheal routes. Moderately toxic to animals by ingestion. A severe skin irritant. Mutation data reported. Human systemic effects by ingestion and intravenous routes: somnolence, hallucinations and distorted perceptions, coughing, nausea or vomiting, and fever. Aspiration of vomitus can cause serious pneumonitis, particularly in young children.

TOXICITY DATA:

Skin-Rabbit, adult 500 mg Severe irritation effects; Mutation in Microorganisms-Salmonella typhimurium 25 mL/plate; Oral-Man TDLo: 3570 mg/kg: Pulmonary system effects, Gastrointestinal tract effects, MET; Oral-Man LDLo: 500 mg/kg; Intravenous-Man TDLo: 403 mg/kg: Central nervous system effects; Unreported-Man LDLo: 1176 mg/kg; Oral-Rat LD₅₀: >5 g/kg; Inhalation-Rat LC₅₀: >5 g/m3/4H; Intraperitoneal-Rat LDLo: 10,700 mg/kg; Intratracheal-Rat LDLo: 800 mg/kg; Oral-Dog, adult LDLo: 4 g/kg; Intravenous-Dog, adult LDLo: 200 mg/kg; Intratracheal-Dog, adult LDLo: 800 mg/kg; Oral-Rabbit, adult LD₅₀: 28 g/kg; Intraperitoneal-Rabbit, adult LD₅₀: 6600 mg/kg; Intravenous-Rabbit, adult LD₅₀: 180 mg/kg; Intratracheal-Rabbit, adult LD₅₀: 200 mg/kg; Oral-Guinea Pig, adult LD₅₀: 20 g/kg

METHYL ALCOHOL (METHANOL) - A human poison by ingestion. Poison experimentally by skin contact. Moderately toxic experimentally by intravenous and intraperitoneal routes. Mildly toxic by inhalation. Human systemic effects: changes in circulation, cough, dyspnea, headache, lachrymation, nausea or vomiting, optic nerve neuropathy, respiratory effects, visual field changes. An experimental teratogen. Experimental reproductive effects. An eye and skin irritant. Human mutation data reported. A narcotic. Its main toxic effect is exerted upon the nervous system, particularly the optic nerves and possibly the retinae. The condition can progress to permanent blindness. Once absorbed, methanol is only very slowly eliminated. Coma resulting from massive exposures may last as long as 2-4 days. In the body, the products formed by its oxidation are formaldehyde and formic acid, both of which are toxic. Because of the slow elimination, methanol should be regarded as a cumulative poison. Though single exposures to fumes may cause no harmful effect, daily exposure may result in the accumulation of sufficient methanol in the body to cause illness. Death from ingestion of less than 30 mL has been reported. A common air contaminant.

TOXICITY DATA:

Skin-Rabbit, adult 20 mg/24H Moderate irritation effects; Eye effects-Rabbit, adult 100 mg/24H Moderate irritation effects; DNA Inhibition-Human: lymphocyte 300 mmol/L; Microsomal Mutageniticity Assay-Mouse: lymphocyte 7900 mg/L; Oral-Rat TDLo: 7500 mg/kg (17-19D preg):Reproductive effects; Inhalation-Rat TCLo: 10,000 ppm/7H (7-15D preg):Teratogenic effects; Oral-Man LDLo: 6422 mg/kg: Central nervous system effects, Pulmonary system effects, Gastrointestinal tract effects; Oral-Man TDLo: 3429 mg/kg: Eye effects; Oral-Human LDLo: 428 mg/kg: Central nervous system effects, Pulmonary system effects, Oral-Human LDLo: 143 mg/kg: Eye effects, Pulmonary system effects, Gastrointestinal tract effects; Inhalation-Human TCLo:86,000 mg/m³: Eye effects, Pulmonary system effects; Inhalation-Human TCLo: 300 ppm: Eye effects, Central nervous system effects, Pulmonary system effects; Oral-Woman TDLo: 4 g/kg; Oral-Rat LD₅₀: 5628 mg/kg; Inhalation-Rat LC₅₀: 64,000 ppm/4H; Intraperitoneal-Rat LD₅₀: 7529 mg/kg; Intravenous-Rat LD₅₀: 2131 mg/kg; Oral-Mouse LD₅₀: 7300 mg/kg; Intraperitoneal-Mouse LD₅₀: 10,765 mg/kg; Subcutaneous-Mouse LD₅₀: 9800 mg/kg; Intravenous-Mouse LD₅₀: 4710 mg/kg; Oral-Monkey LDLo: 7000 mg/kg; Inhalation-Monkey LCLo: 1000 ppm; Skin-Monkey LDLo: 393 mg/kg

PETROLEUM DISTILLATES - Experimental reproductive effects reported.

TOXICITY DATA:

Inhalation-Mouse TCLo:1500 ppm/6H (female 6-15D post)

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<u>XYLENE</u> - Moderately toxic by intraperitoneal and subcutaneous routes. Mildly toxic by ingestion and inhalation. An experimental teratogen. Human systemic effects by inhalation: olfactory changes, conjunctiva irritation, and pulmonary changes. Experimental reproductive effects. Mutation data reported. A human eye irritant. An experimental skin and severe eye irritant. Some temporary corneal effects are noted, as well as some conjunctival irritation by instillation (adding drops to the eyes one drop at a time). Irritation can start @ 200 ppm.

TOXICITY DATA:

Eye effects-Human 200 ppm; Skin-Rabbit, adult 100% Moderate irritation effects; Skin-Rabbit, adult 500 mg/24H Moderate irritation effects; Eye effects-Rabbit, adult 87 mg Mild irritation effects; Eye effects-Rabbit, adult 5 mg/24H Severe irritation effects; Cytogenetic Analysis-Saccharomyces cerevisiae 1 mmol/tube; Inhalation-Rat TCLo: 50 mg/m³/6H (female 1-21D post):Reproductive effects; Inhalation-Rat TCLo: 50 mg/m3/6H (female 1-21D post):Teratogenic effects; Oral-Human LDLo: 50 mg/kg; Inhalation-Man LCLo: 10,000 ppm/6H; Inhalation-Human TCLo: 200 ppm: NOSE, Eye effects, Pulmonary system effects; Oral-Rat LD₅₀: 4300 mg/kg; Inhalation-Rat LC₅₀: 5000 ppm/4H; Intraperitoneal-Rat LD₅₀: 2459 mg/kg; Oral-Unspecified effects LD₅₀: 4300 mg/kg; Inhalation-Unspecified effects LC₅₀: 30 g/m³

Section XII - Ecological Considerations

Ecological testing has not been conducted on this product. Material should be considered hazardous to aquatic life.

Section XIII - Disposal Considerations

Waste Classification: Material should be disposed of by incineration or in an approved landfill in accordance with all federal, state, and local regulations. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the products meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting material hazardous.

The container of this product can present physical or health hazards, even when emptied! To avoid risk of injury, do not cut, puncture, or weld on or near this container. Since emptied containers retain product residue, follow label warnings even after container is emptied.

Section XIV - Transportation Information

DEPARTMENT OF TRANSPORTATION:

DOT Identification Number: UN1993

DOT Proper Shipping Name: UN1993, Flammable liquid, n.o.s., (Contains Petroleum distillates and Methanol), 3, PGII

DOT Hazard Class: 3

DOT Identification Name: Flammable liquid, n.o.s.

DOT Packaging Group: PGII

RQ: Xylene (6,699 lbs or 904 gallons)

2012 ERG Number: 128

Section XV - Regulatory Information

TSCA: Components of this product are listed on the TSCA Inventory.

CERCLA: If reportable quantity of this product is accidentally spilled the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act and must be reported to the National Response Center by calling (800) 424-8802.

CERCLA Component	CAS#	Wt. %	RQ, lbs	Product RQ Value	
Methanol	67-56-1	3.2	5000	155,352 lbs (20,969 gallons)	
2-Butoxyethanol*	111-76-2	3.7	N230		
Xylene	1330-20-07	1.5	100	6,699 lbs (904 gallons)	
Cumene	98-82-8	0.7	5000	669.912 lbs (90.422 gallons)	

^{*} Belongs to broad or generic class of Glycol Ethers with no assigned RQ, but classified as CERCLA hazardous substances.

SARA TITLE III:

This product contains the following Extremely Hazardous Substance under EPCRA section 302/304 lists.

EHS Component None CAS # Wt. % RQ, lbs TPQ, lbs

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Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:

Immediate (Acute) Health: X Delayed (Chronic) Health: X Fire: X Pressure: Reactive:

This product contains the following Section 313 Reportable Ingredients:

313 Component	CAS#	Wt. %	
1,2,4-Trimethylbenzene	95-63-6	21.7	
Methanol	67-56-1	3.2	
2-Butoxyethanol*	111-76-2	3.7	
Xylene	1330-20-07	1.5	
Cumene	98-82-8	0.7	

* 313 Category Code N230

Section XVI - Other Information

Hazardous Material Identification System Category Rating:

Health: 3
Flammability: 3
Reactivity: 0
Personal Protection: C

This rating scheme rates health, fire, and reactivity on a scale of 0 to 4.

0 = No significant hazard 1 = Slight Hazard 2 = Moderate Hazard 3 = High Hazard 4 = Extreme Hazard

Personal Protective Equipment Guide:

A = Safety Glasses, Gloves, Vapor Respirator

B = Safety Glasses, Gloves, Apron, Vapor Respirator

C = Safety Glasses/Goggles, Gloves, Apron
I = Safety Glasses, Gloves, Apron, Dust & Vapor Respirator
D = Gloves, Apron, Faceshield
J = Splash Goggles, Gloves, Apron, Dust & Vapor Respirator

E = Safety Glasses, Gloves, Dust Respirator K = Air Line Hood/Mask, Gloves, Full Suit, Boots F = Safety Glasses, Gloves, Apron, Dust Respirator X = Ask supervisor for special handling instructions

Component data taken from Sax's Dangerous properties of Industrial Materials, 10th Edition, John Wiley & Sons; Vendor's MSDS Sheets, NIOSH "Pocket Guide to CHEMICAL HAZARDS", U.S. Department of Health and Human Resources, 2007; The Merck Index, 9th Edition, Merck & Co., Inc.; "ACGIH 2004 TLVs and BEIs", American Conference of Governmental Industrial Hygienists; "Quick Selection Guide to CHEMICAL PROTECTIVE CLOTHING", 3RD Edition, John Wiley & Sons, Inc., 1997.

Definitions

ACGIH: American Conference of Governmental & Industrial Hygienists

ANSI: American National Standard Institute

BEI: Biological Exposure Indices - individual tests via urine or exhaled air CERCLA: Comprehensive Emergency Response, Compensation, and Liability Act

DOT: U.S.Department of Transportation
EPA: U.S. Environmental Protection Agency
HMIS: Hazardous Materials Identification System
IARC: International Agency For Research On Cancer

LC₅₀: Lethal Concentration 50: A calculated concentration of the substance which is expected to cause death in 50% of an

entire defined experimental animal population.

LCLo: Lethal Concentration Low: The lowest concentration of a material in air (other than LC50) that has been reported to

have caused death in humans or animals.

LD₅₀: Lethal Dose 50: A calculated concentration of the substance which is expected to cause death in 50% of an entire

defined experimental animal population.

LDLo: Lethal Dose Low: the lowest dose (other than LD_{50}) of a material introduced by any route, other than inhalation, over

any given period of time in one or more divided portions and reported to have caused death in humans or animals.

MSHA: Mine Safety and Health Administration

N/A: Not Applicable
N/D: Not Determined
NE: Not Established

NFPA: National Fire Protective Association

NIOSH: National Institute for Occupational Safety & Health

NSF: National Sanitation Foundation NTP: National Toxicology Program

OSHA: U.S. Occupational Safety and Health Administration

PEL: Permissible Exposure Limit
PPE: Personal Protective Equipment

RCRA: Resource Conservation and Recovery Act
REL: Recommended Exposure Limit (NIOSH)

RQ: Reportable Quantity

SARA: Superfund Amendments and Reauthorization Act of 1986 Title III

SCBA: Self Contained Breathing Apparatus

STEL: Short Term Exposure Limit

TCLo: Toxic Concentration Low: The lowest concentration of a material in air to which humans or animals have been

exposed for any given period of time that has produced any toxic effect in humans or produced a carcinogenic,

neoplastigenic, or teratogenic effect in animals or humans.

TLV: Threshold Limit Value: A recommended upper limit or TWA concentration of a substance to which most workers

can be exposed without adverse effects.

TSCA: Toxic Substances Control Act
TWA: Time Weighted Average

Wt: Weight
<: Less Than
>: Greater Than

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