MATERIAL SAFETY DATA SHEET

T-77

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Tarr Acquisition, LLC
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Phoenix, AZ 85019

INFORMATION PHONE: (602) 233-2000

EMERGENCY PHONE: **CHEMTREC 800-424-9300 (US) Day or night**
International Call Collect CHEMTREC 202-483-7616

PRODUCT NAME: **T-77**

PRODUCT NUMBER: 4071

UPC NUMBER:

PREPARED BY: Patricia Rodabaugh

DATE PREPARED: 11/24/2004

LAST REVISION: 12/8/2000

SYNONYMS:

Portland, Oregon
Phoenix, Arizona
Auburn, Washington
Vancouver, Washington

Print Date: 11/24/2004

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV	NOTE
Butoxyethanol, 2-	111-76-2	23-27	25 ppm (skin)	25 ppm (skin)	
Xylenes	1330-20-7	17-28	100 ppm	100 ppm	
Ethyl benzene	100-41-4	2-8	100 ppm	50 ppm (skin)	
Toluene	108-88-3	<0.5	200 ppm	50 ppm (skin)	
Cumene	98-82-8	<0.4	50 ppm	50 ppm	
Benzene	71-43-2	<0.5	1 ppm	5 ppm	
Methyl isobutyl ketone	108-10-1	48-52	50 ppm	50 ppm	

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating.

INHALATION: Vapors may be irritating to the nose, throat, and respiratory tract. High vapor concentrations may cause central nervous system (CNS) depression.

INGESTION: Liquid is moderately toxic and may be harmful if swallowed; may produce CNS depression. Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspir. pneumontis.

SKIN CONTACT: Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

SIGNS AND SYMPTOMS OF EXPOSURE:
Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing an cyanosis (bluish skin). In severe cases death may result.

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention immediately.

INGESTION: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.*

SKIN CONTACT: Remove contaminated clothing/shoes. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

AGGRAVATED MEDICAL CONDITIONS:

Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impared function from preexisiting disorders may be aggravated by exposure to this product. Laboratory studies have shown that petroleum distillates may cause kidney, liver, or lung damage. reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervouus system damage.

SUPPLEMENTAL HEALTH INFORMATION:

*Note to physician: If more than 2.0 ml per kg has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: 62 F **FLASH POINT METHOD USED:** Tag Closed Cup

AUTOIGNITION: 986 F **LEL:** 0.008 **UEL:** 0.115

EXTINGUISHING MEDIA:

Use water fog, "alcohol" foam, dry chemical, or CO2.

SPECIAL FIRE FIGHTING PROCEDURES:

WARNING. Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mist or spray may be flammable at temperatures below the flash point.

COMBUSTION PRODUCTS:

Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANLDING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

OTHER PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

If exposure may or does exceed occupational exposure limits (Sec. 2) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-suppling respir. of an air-purifying respir. for organic vapors.

VENTILATION:

Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PROTECTIVE GLOVES:

Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

EYE PROTECTION:

Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK / HYGENIC PRACTICES:

Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

ENGINEERING CONTROLS:

Facilities storing or utilizing this material should be equipped with and eyewash facility and a safety shower.

EXPOSURE GUIDELINES:

May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventillation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

SOLUBILITY IN WATER: Solubility negligible in water

APPEARANCE AND ODOR: Clear, colorless liquid with aromatic sweet odor.

BOILING POINT:	175 - 340 F	**PERCENT VOLATILE:**	100
VAPOR PRESSURE:	9.7 mmHg @ 20 C	**PH:**	essentially neu
EVAPORATION RATE:	Slower than ether	**MOLECULAR WEIGHT:**	
POUNDS PER GALLON:	7.013	**VAPOR DENSITY:**	Heavier than air
SPECIFIC GRAVITY:	0.8418	**OTHER PROPERTIES:**	VOCs: 7.013 lb/gal, 840.4 g/L
MELTING POINT:	-54 F (-48		
FREEZING POINT:	NDA		

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Stable under normal conditions.

INCOMPATIBILITY:

Avoid strong oxidizers. Xylene will attack some forms of plastics, rubber and coatings.

HAZARDOUS DECOMPOSITION OR BY PRODUCTS:

Carbon monoxide and unidentified organic compounds may be formed during combustion.

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: Avoid heat, flame, and other sources of ignition.

11. TOXICOLOGY INFORMATION

This product may contain benzene (CAS No. 71-43-2) at a concentration less than 1 ppm. A chronic feeding study in rats with ethyl benzene

caused cancer (increase in total malignant tumors). Developmental toxicity studies in rats with ethyl benzene showed evidence of skeletal and other malformations at maternally toxic doses; similar effects were not seen in rabbits. Ethyl benzene was not mutagenic in: Ames test, yeast, drosophila, sister chromatic exchange with cultured human lymphocytes cells and in vitro cytogenetics assay with CHO cells.

12. ECOLOGICAL INFORMATION

Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDERATIONS

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORTATION INFORMATION

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (methyl isobutyl ketone, xylene)	**PACKING GROUP:**	II
		GUIDE NUMBER:	130
HAZARD CLASS:	3	**DOT CLASS:**	Flammable liquid
UN NUMBER:	UN 1993		

15. REGULATORY INFORMATION

HAP content: 6.99 lb/ga. as ethyl benzene (100-41-4) 0.38 lbs./gal.; MIBK (108-10-1) 3.335 lbs./gal., toluene (108-88-3) 0.005 lbs./gal., xylenes (1330-20-7) 1.393 lbs./gal., ethylene glycol (107-21-1) 0.002 lbs./gal., 2-butoxyethanol (111-76-2) 1.876 lbs./gal.

16. OTHER INFORMATON

HMIS INFORMATION: **HEALTH:** 2 **FLAMMABILITY:** 3 **REACTIVITY:** 0 **PROTECTIVE:** H

SARA Title III Information:

SARA 302: To the best of our knowledge, none of the chemicals in this product are listed as an Extremely Hazardous Substance under Section 302 of SARA Title III nor does this product contain any other such substances.

SARA 311/312: To the best of our our knowledge, this product is not reportable.

SARA 313: Xylenes (1330-20-7), ethyl benzene (100-41-4) , Methyl isobutyl ketone (108-10-1), glycol ether compounds are listed.

Supplemental Health Info.: This product contains the following chemicals known to the State of California to cause cancer & reproductive toxicity: Benzene, Toluene. Check with local and state authorities for additional chemicals that could be listed.

Xylene is not listed as a carcinogen by NTP, IARC, or OSHA and we are not aware of data indicating it is mutagenic, carcinogenic or a skin sensitizer. Laboratory animals exposed to prolonged and repeated high doses of xylene by various routes have shown hearing loss and effects in liver, kidneys, lungs, spleen, heart, blood and adrenals; developmental toxicity studies showed embryolethal/toxic and teratogenic effects with maternal toxicity. The effects of solvents on human hearing are uncertain. Solvent abusers and noise interaction with xylene in the work environment may cause signs of hearing loss.

While there is no evidence that industrially acceptable levels of toluene vapors (e.g., the TLV) have produced cardiac effects in humans, animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This latter effect was shown to be enhanced by hypoxia or the injection of adrenalinlike agents. Prolonged and repeated exposures to high concentrations of toluene have resulted in hearing loss in laboratory rats. While the effect of solvents on the human auditory system is uncertain, solvent abusers exposed to high doses of toluene show signs of hearing loss, and occupational exposure to toluene may interact with noise in causing hearing loss in the work environment. The effects of solvents on human hearing are uncertain. Solvent abusers and noise interaction with toluene in the work environment may cause signs of hearing loss.

Exposure of rats by inhalation to 2-butoxyethanol (2-BE) caused hemolysis, hemoglobinuria (blood in the urine) and a slight increase in liver weight. Other species, including man, were much less sensitive to hemolysis. The hemolytic effect seen in rats was transitory and/or reversible and not considered to be relevant to human health. Inhalation exposure of pregnant rabbits caused some lethality to the dam and fetus at 200 ppm, but there were no effects at 100 ppm and below. Inhalation exposure to pregnant rats caused irritancy to the dams and related fetotoxicity at 200 ppm and 100 pm, but there were no effects at 50 ppm and below. 2-BE did not cause birth defects in either study. Feotoxicity/Teratogenicity: High exposures to xylene is some animal studies, often at levels toxic to the mother, affected embryo/fetal development. The significance of this finding to humans is not known.

N/A = Not Applicable
NDA = No Data Available

Disclaimer

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