

MATERIAL SAFETY DATA SHEET



Date Issued: 01/20/2006
MSDS No: 2207
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Revision No: 1

MIL-T (81772) TYPE 1

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MIL-T (81772) TYPE 1
PRODUCT CODE: 2207, 2550

MANUFACTURER

Tarr Acquisition, LLC
 4115 W. Turney Ave.
 Phoenix, AZ 85019
Service Number: 602-233-2000

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful. May cause central nervous system depression. May be irritating to eyes, skin, nose, throat and respiratory tract.

POTENTIAL HEALTH EFFECTS

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

SKIN: Liquid is moderately 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).

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 aspiration pneumonitis.

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

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: 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 and cyanosis.

MEDICAL CONDITIONS AGGRAVATED: Preexisting diseases in or history of ailments involving skin, central nervous system, liver and kidney.

TARGET ORGAN STATEMENT: Near fatal exposures may result in congestive effects to a wide variety of organs.

3. COMPOSITION / INFORMATION ON INGREDIENTS

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Chemical Name	Vol. %	CAS	EINECS
Ethyl methyl ketone	0	78-93-3	
Benzene, methyl-	12 - 0.04	108-88-3	203-625-9
Benzene	0	71-43-2	--
Xylenes (o-,m-,p- isomers)	0	1330-20-7	215-535-7
Ethyl benzene	0	100-41-4	--
n-Butyl acetate	0	123-86-4	204-658-1
N-butanol	0	71-36-3	200-751-6
Ethyl 3-ethoxypropionate	0	763-69-9	
2,6-di-tert-butyl-p-cresol	0	128-37-0	--

4. FIRST AID MEASURES

EYES: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

SKIN: Remove contaminated clothing/shoes. Flush skin with water for at least 15 minutes. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

INGESTION: DO NOT INDUCE VOMITING. Do not attempt to give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. 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. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: < (40°F)

FLAMMABLE LIMITS: 0.008 to 0.115

AUTOIGNITION TEMPERATURE: Not Determined

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

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

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

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.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of

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ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency. Dike around large spills to prevent spreading. Absorb small spills with inert material (clay, sand). Prevent contamination of surface waters.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: 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.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) 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; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

MIL-T (81772) TYPE 1**EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Ethyl methyl ketone	TWA	200	590	200	590
	STEL			300	885
Benzene, methyl-	TWA	200		50 ^[2]	188 ^[2]
	STEL	300 ^[1]	^[1]		
Benzene	TWA	1 % ^[3]	^[3]	0.5 %	
	STEL	5		2.5	
Xylenes (o-,m-,p- isomers)	TWA	100	435	100	434
	STEL			150	651
Ethyl benzene	TWA	100	435	100	434
	STEL			125	543
n-Butyl acetate	TWA	150	710	150	713
	STEL			200	950
N-butanol	TWA	100	300	20	
Ethyl 3-ethoxypropionate	TWA	^[4]	^[4]	^[5]	^[5]
2,6-di-tert-butyl-p-cresol	TWA		10		
OSHA TABLE COMMENTS:					
1. C = Ceiling					
2. S = Skin					
3. Carcinogen					
4. NA=NOT APPLICABLE					
5. NA = Not Applicable					

ENGINEERING CONTROLS: 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.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: 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.

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

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH

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approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

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

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

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
Ethyl methyl ketone	-5		Appreciable	0.81
Benzene, methyl-	4.5 TAG CC		0.07% (74 deg. F)	0.87
Xylenes (o-,m-,p- isomers)	27 TAG CC		Solubility negligible in water.	0.87
n-Butyl acetate	21.85	-77	1%	0.88
Ethyl 3-ethoxypropionate	136		Soluble with most ketones and hydrocarbons, solubility negligible in water.	0.95

PHYSICAL STATE: Liquid

ODOR: Pungent odor.

COLOR: Clear, colorless liquid.

pH: Essentially neutral.

PERCENT VOLATILE: 100

VAPOR PRESSURE: 3.7 - 73

VAPOR DENSITY: Heavier than air.

BOILING POINT: (175°F) to (384°F)

FREEZING POINT: NDA = no data available.

MIL-T (81772) TYPE 1**MELTING POINT:** No data available.**FLASHPOINT AND METHOD:** < (40°F)**SOLUBILITY IN WATER:** Miscible with most organic solvents, insoluble with water.**EVAPORATION RATE:** Slower than ether.**DENSITY:** 7.19**SPECIFIC GRAVITY:** 0.860 to 0.90**(VOC):** 7.190 lbs./gal.**10. STABILITY AND REACTIVITY****STABLE:** Yes**STABILITY:** Stable under normal conditions.**POLYMERIZATION:** Will not occur under normal conditions.**CONDITIONS TO AVOID:** Avoid heat, sparks, open flames and other ignition sources.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion.**INCOMPATIBLE MATERIALS:** Strong oxidizers.**11. TOXICOLOGICAL INFORMATION****ACUTE**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Benzene	636 mg/kg (Rat)	> 14000 mg/kg (Rabbit)	~ 4000 (NINHL rat)
Xylenes (o-,m-,p- isomers)	4300 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	6700 ppm / 4 hours (rat)

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Benzene, methyl-		3	
Benzene	1	1	ü
Xylenes (o-,m-,p- isomers)		3	
Ethyl benzene		2B	

Notes: This product may contain benzene (CAS No. 71-43-2) at a concentration less than 10 ppm.**SENSITIZATION:** 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

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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.

REPRODUCTIVE EFFECTS: Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.

MUTAGENICITY: Toluene is not known to be mutagenic or carcinogenic. However, the available human and experimental data are limited and insufficient to assess carcinogenic potential. Toluene is not listed as a carcinogen by NTP, IARC, or OSHA. Intentional abuse of toluene vapors has been linked to damage of brain, liver, kidney and to death. Many case studies involving abuse during pregnancy clearly indicate that toluene is a developmental toxicant. Developmental toxic effects comparable to those observed in humans have been seen in lab animals but the effects were generally associated with maternal toxicity.

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: 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.

EMPTY CONTAINER: 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.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Flammable Liquids, N.O.S.

TECHNICAL NAME: (n-butyl acetate, methyl ethyl ketone)

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1993

PACKING GROUP: II

NAERG: 128

LABEL: Flammable liquid

15. REGULATORY INFORMATION

MIL-T (81772) TYPE 1**UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

Flammable Liquid

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Vol. %	CAS
Benzene, methyl-	12 - 0.04	108-88-3
Xylenes (o-,m-,p- isomers)	0	1330-20-7
Ethyl benzene	0	100-41-4

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: 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.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Vol. %	CERCLA RQ
Ethyl methyl ketone	0	5,000
Benzene, methyl-	12 - 0.04	1,000
Benzene	0	10
Xylenes (o-,m-,p- isomers)	0	100
Ethyl benzene	0	1,000
n-Butyl acetate	0	5,000
N-butanol	0	5,000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

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Chemical Name	CAS
Ethyl methyl ketone	78-93-3
Benzene, methyl-	108-88-3
Benzene	71-43-2
Xylenes (o-,m-,p- isomers)	1330-20-7
Ethyl benzene	100-41-4
n-Butyl acetate	123-86-4
N-butanol	71-36-3
Ethyl 3-ethoxypropionate	763-69-9

TSCA REGULATORY: This product is a mixture and each component is listed in the TSCA Inventory of Chemical Substances.

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause cancer.: Ethylbenzene (100-41-4), Benzene (71-43-2).

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause birth defects or other reproductive harm.: Benzene (71-43-2), Toluene (108-88-3).

Chemical Name	Vol. %	Listed
Benzene, methyl-	12 - 0.04	• Female Reproductive
Benzene	0	• Cancer • Developmental Toxicity • Male Reproductive
Ethyl benzene	0	Cancer

GENERAL COMMENTS: The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

16. OTHER INFORMATION

PREPARED BY: Compliance Dept.

REVISION SUMMARY: This MSDS replaces the 01/20/2006 MSDS. Revised: **Section 1:** PREPARED BY. **Section 15:** GENERAL COMMENTS, 313 REPORTABLE INGREDIENTS. **Section 16:** HMIS RATING - HMIS RATINGS NOTES.

HMIS RATING

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY		3
PHYSICAL HAZARD		0
PERSONAL PROTECTION		H

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HMIS RATINGS NOTES: The HMIS rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in the MSDS must be considered. Personal protection rating to be supplied by user depending on use conditions.

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