MATERIAL SAFETY DATA SHEET

Date Issued: 05/27/2005
MSDS No: 4288
Date-Revised: 11/12/2007
Revision No: 1

LINE FLUSH

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: LINE FLUSH
PRODUCT CODE: 4288

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

PHYSICAL APPEARANCE: Clear, water-white liquid.

IMMEDIATE CONCERNS: DANGER! Flammable liquid and vapor. May cause eye, skin and respiratory tract irritation. May cause asphyxiation, or brain, lung or other organ injury if inhaled, swallowed or absorbed by the skin.

POTENTIAL HEALTH EFFECTS

EYES: Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue. Additional symptoms of eye exposure may include: blurred vision.

SKIN: Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Widespread skin contact with methylene chloride may cause an intense burning feeling followed by a cold, numb feeling which lessens after contact ends. Additional symptoms of skin contact may include: skin blistering, passage of this material into the body through the skin is possible, and skin contact may be harmful.

INGESTION: May be harmful if swallowed. May cause gastric upset. Liquid can directly enter the lungs (aspiration) when swallowed or vomited. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs.

INHALATION: Breathing of vapor or mist is possible. Breathing this material may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits. Vapors may be irritating to the nose, throat, and respiratory tract. Exposure to high vapor concentrations may cause central nervous system (CNS) depression.

TARGET ORGAN STATEMENT: This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain. Acute lethal exposure to ethylene

glycol monobutyl ether in animal studies has resulted in congestion of organs including kidney, spleen and lung. Exposure to the material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Breathing isopropanol vapors has caused damage to the lining of the middle ear in experimental animals. The relevance of this finding to humans in uncertain. Exposure to lethal concentrations of methanol has been shown to cause damage to organs including liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage. Based on animal studies, exposure to methyl ethyl ketone (MEK) increases the onset of peripheral neuropathy caused by exposure to methyl butyl ketone (MBK), and /or n-hexane, and/or ethyl butyl ketone. MEK alone has not been shown to cause peripheral neuropathy. Prolonged intention toluene abuse may leasde to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupation exposure to toluene. Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: blood abnormalities, anemia, effects on male fertility, respiratory tract damage (nose, through and airways), pancreatic damage, kidney damage, lung damage, brain damage, effects on hearing, testis damage, liver damage, central nervous system damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: central nervous system effects, anemia, effects on hearing, kidney damage, visual impairment, liver damage.

COMMENTS: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, redness of the face and neck, mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, tight feeling in the chest, central nervous system excitation (giddiness, liveliness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, leg cramps, involuntary eye movement, muscle weakness, low blood pressure, pain in the abdomen and lower back, effects on heart rate, respiratory depression coordination, confusion, difficult breathing, irregular heartbeat, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), elevated carbon monoxide levels in the blood, high blood sugar, blood in the urine, blood abnormalities (breakage of red blood cells), narcosis (dazed or sluggish feeling), anesthesia, lung edema (fluid buildup in the lung tissue), kidney damage, liver damage, visual impairment (including blindness), respiratory failure, coma and death.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Acetone	25 - 29	000067-64-1
Xylenes (o-,m-,p- isomers)	12 - 12	001330-20-7
Methanol	9 - 11	000067-56-1
2-Propanol	1 - 11	000067-63-0
n-Propyl alcohol	5 - 9	000071-23-8
Ethanol	1 - 5	000064-17-5
Benzene, methyl-	5 - 9	000108-88-3
Stoddard solvent	2 - 6	008052-41-3
Ethyl methyl ketone	3 - 4	000078-93-3
Solvent naphtha, light aliphatic	2 - 6	064742-89-8
n-Propyl acetate	1 - 5	000109-60-4
N-butanol	1 - 2	000071-36-3
Methylene chloride	1 - 2	000075-09-2
1-Propanol, 2-methyl-	1 - 3	000078-83-1
Ethyl benzene	2.4 - 2.4	000100-41-4

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

INGESTION: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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.

NOTES TO PHYSICIAN: Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol

metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, pancreas, heart, blood-forming system, male reproductive system auditory system, exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. Individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: < -18.3°C (-1°F) TAG CC

FLAMMABLE LIMITS: 1 to 36

AUTOIGNITION TEMPERATURE: Not Determined

EXTINGUISHING MEDIA: Use regular foam, water fog, carbon dioxide, dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: May form: carbon dioxide and carbon monoxide, chlorine, hydrogen chloride, various hydrocarbons.

EXPLOSION HAZARDS: Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Forms peroxides of unknown stability.

FIRE FIGHTING PROCEDURES: Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Containers exposed to intense heat from fires should be cooled with large quantities of water to prevent weakening of container structure which could result in container rupture.

FIRE FIGHTING EQUIPMENT: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material. Personal not wearing proper personal protective equipment should be excluded from area of spill.

LARGE SPILL: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of leak if safe to do so. Dike and contain spill. Prevent from entering drains, sewers, streams or other bodies of water. If runoff occurs, notify authorities as required. Remove with vacuum trucks or pump into clean storage/salvage vessels for recovery. Absorb unrecoverable

product. Transfer contaminated absorbent, soil and other materials to containers for proper disposal.

GENERAL PROCEDURES: Remove all sources of ignition and provide ventilation. Wear protective clothing as given in section 8. Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material with absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal using non-sparking equipment. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for proper disposal.

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.

HANDLING: Wash thoroughly after handling. Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

STORAGE: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		**ppm**	**mg/m³**	**ppm**	**mg/m³**	**ppm**	**mg/m³**
Acetone	**TWA**	1000	2400	500			
	STEL			750			
Xylenes (o-,m-,p- isomers)	**TWA**	100	435	100	434		
	STEL			150	651		
Methanol	**TWA**	200	260	200	262		
	STEL			250	328		
2-Propanol	**TWA**	400 ppm	980 mg/m3	200 ppm	490 mg/m3	NL [1]	NL [1]
	STEL	ppm	mg/m3	400 ppm	960 mg/m3	NL	NL
n-Propyl alcohol	**TWA**	200	500	(200)	NIC		
	STEL			(400)	NIC		

Ethanol	**TWA**	1000	1900	1000	1884	NL	NL
	STEL					NL	NL
Benzene, methyl-	**TWA**	200		50 [3]	188 [3]		
	STEL	300 [2]	[2]				
Stoddard solvent	**TWA**	100 ppm	525 mg/m3	100 ppm	525 mg/m3	NL	NL
	STEL	NL ppm	NL mg/m3	NL ppm	NL mg/m3	NL	NL
Ethyl methyl ketone	**TWA**	200	590	200	590		
	STEL			300	885		
Solvent naphtha, light aliphatic	**TWA**	[4]	[4]			100 [5]	400 [5]
n-Propyl acetate	**TWA**	200		200			
N-butanol	**TWA**	100	300	20			
Methylene chloride	**TWA**	25		50	173		
	STEL	125					
1-Propanol, 2-methyl-	**TWA**	50 ppm	150 mg/m3	50 ppm	152 mg/m3	NL	NL
	STEL	NL [1]	NL [1]	NL	NL	NL	NL
Ethyl benzene	**TWA**	100		50			

OSHA TABLE COMMENTS:
1. NL = Not Listed
2. C = Ceiling
3. S = Skin
4. Our supplier has adopted, as Interim Standards, the OSHA PELs that were established in 1989 and later rescinded.
5. In the absence of occupational exposure standards for this product, it is recommended that these values are adopted.

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: Chemical splash goggles and face shield in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic odor.

COLOR: Clear, colorless to slightly yellow-colored liquid.

VAPOR DENSITY: > 1

BOILING POINT: to (253°F)

FLASHPOINT AND METHOD: < -18.3°C (-1°F) TAG CC

EVAPORATION RATE: Slower than ether.

DENSITY: 7.37 at (68°F)

SPECIFIC GRAVITY: 0.812 to 0.895 at (68°F)

(VOC): ~ 5.278 lbs./gal.

10. STABILITY AND REACTIVITY

STABILITY: Avoid heat, sparks, flame and contact with strong oxidizing agents.

POLYMERIZATION: Product will not undergo polymerization.

CONDITIONS TO AVOID: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic gases produced: Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide and unidentified organic compounds may be formed during combustion.

INCOMPATIBLE MATERIALS: This product is incompatible with strong acids or bases, oxidizers, alkali metals, and halogens.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)	INHALATION LC_{50} (rat)
Solvent naphtha, light aliphatic	> 2000 MG/KG Rat	> 2000 mg/kg (rat)	> 5000 ppm / 1 hour (rat)

CARCINOGENICITY

IARC: The International Agency for Research of Cancer (IARC) has determined that exposure to ethanol

through chronic human consumption of alcoholic beverages can cause cancer. The relevance of this finding to ethanol exposure in industrial environments is uncertain.
Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The IARC has classified ethylbenzene as a possible human carcinogen.

NTP: Methylene Chloride is listed.

OSHA: Methylene Chloride is listed.

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. Methanol has cased birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain. This product contains ethanol. Alcoholic beverage consumption has been associated with birth defects in humans. The relevance of this finding to ethanol exposure in industrial environments is uncertain.

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

ENVIRONMENTAL DATA: Do not flush to sewer.

ECOTOXICOLOGICAL INFORMATION: 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: Paint Related Material

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN1263

PACKING GROUP: II

NAERG: 128

15. REGULATORY INFORMATION

UNITED STATES

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

313 REPORTABLE INGREDIENTS: Xylene (mixed isomers)1330-20-7
Methanol 67-56-1
Toluene 108-88-3
Methyl Ethyl Ketone 78-93-3
N-Butyl Alcohol 71-36-3
Dichloromethane (Methylene chloride) 75-09-2
Ethylbenzene 100-41-4

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: Component RQ (lbs)
Acetone 5000
Xylenes (o-, m-, p- isomers) 100
Methyl Alcohol 5000
Toluene 1000
Methyl Ethyl Ketone 5000
N-Butyl Alcohol 5000
Methylene Chloride 1000
Isobutyl Alcohol 5000
Ethylbenzene 1000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

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.: Dichloromethane (Methylene Chloride), Benzene, Ethylene Oxide.

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 reproductive harm.: Toluene, Ethyl Alcohol, Benzene, Ethylene Oxide.

OSHA HAZARD COMM. RULE: This product is considered hazardous by OSHA.

16. OTHER INFORMATION

PREPARED BY: Compliance Dept.

REVISION SUMMARY: Revision #: 1 This MSDS replaces the November 12, 2007 MSDS. Any changes in information are as follows:

HMIS RATING

HEALTH:	2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	H

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