

MATERIAL SAFETY DATA SHEET



Date Issued: 05/14/2010

MSDS No: 1009NR

NON-CHLOR BRAKE CLEANER

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NON-CHLOR BRAKE CLEANER**PRODUCT CODE:** 1009NR**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! Poison. Flammable. Contains methanol. Cannot be made non-poisonous. Liquid and vapor harmful. May be fatal or cause blindness if swallowed. Can cause severe lung damage. Avoid prolonged breathing of vapors. Avoid contact with eyes and skin. Causes skin irritation. May cause CNS depression. Use only in well ventilated areas.

POTENTIAL HEALTH EFFECTS

EYES: Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

SKIN: 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).

INGESTION: POISONOUS. May be fatal or cause blindness if swallowed. Ingestion may have a narcotic effect including signs of central nervous system (CNS) depression such as dizziness, light-headedness, headache, drowsiness, nausea, loss of coordination, and fatigue. 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. pneumonitis. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs. Significant exposure may result in unconsciousness and death.

INHALATION: Excessive exposure to this product may cause headache, CNS depression, drowsiness, dizziness, loss of appetite, irritation of the nasal and respiratory tract, drunkenness, unconsciousness, or death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Material is a severe eye irritant. Direct contact with the liquid or exposure to vapors or mists may cause stinging, tearing, redness, swelling and eye damage.

SKIN: This material is a skin irritant. Signs and symptoms may include a burning sensation, redness, swelling and/or blisters. Direct contact may cause redness or burning, drying and cracking of the skin.

INGESTION: If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.

INHALATION: Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

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 (bluish skin). In severe cases death may result.

CHRONIC EFFECTS: Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product. The following organs and/or organ systems may be damaged by overexposure to the material. Heart, kidney, liver, auditory system. In severe cases death may result.

CARCINOGENICITY: 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.

REPRODUCTIVE TOXICITY

TERATOGENIC EFFECTS: Contains Methanol which has been established as a teratogen by inhalation. See Sec.11 for details.

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

ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.

TARGET ORGAN STATEMENT: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects; mild, reversible kidney effects; nasal damage.

COMMENTS HEALTH: Laboratory studies have shown that harmful by inhalation and if swallowed. Possible risks of irreversible effects. Can cause optic nerve damage (blindness).

HEALTH HAZARDS: Light hydrocarbons like this one have been associated with cardiac sensitization in abuser situations. Hypoxia or the injection of adrenaline-like substances enhances these effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS	EINECS
Benzene, methyl-	50 - 60	108-88-3	203-625-9
Benzene	< 0.05	71-43-2	- -
Methanol	21 - 31	67-56-1	200-659-6
Solvent naphtha, light aliphatic	18 - 28	64742-89-8	265-192-2

COMMENTS: Toluene may contain benzene (CAS 71-43-2) at a concentration less than 30 ppm.

4. FIRST AID MEASURES

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

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: Call poison control center or get medical help immediately. If patient is conscious and alert, give 8 ounces of water or juice and induce vomiting, keeping patient's head below hips to prevent aspiration of liquid into lungs.

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) Lowest flash of chemical constituents within product.

FLAMMABLE LIMITS: 0.01 to 0.7

AUTOIGNITION TEMPERATURE: Not Established

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.

OTHER CONSIDERATIONS: Product emits vapors which are heavier than air and may travel long distances.

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.

FIRE FIGHTING EQUIPMENT: The use of SCBA is recommended for firefighters. Water spray may be used to cool containers exposed to heat or flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Keep material out of storm sewers and ditches which lead to waterways.

GENERAL PROCEDURES: 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.

RELEASE NOTES: 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.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid breathing of or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Section 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to risk assessment of local circumstances to help determine appropriate controls for safe handling storage and disposal of this material.

HANDLING: Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form. Ground and bond all equipment when transferring from one container to another.

STORAGE: Store away from heat, sparks, and open flame. Keep containers tightly closed when not in use. Do not weld, cut, grind, solder, or drill on or near empty containers. Empty containers may contain explosive concentrations of product vapors.

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

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Benzene, methyl-	TWA	200		50 ^[2]	188 ^[2]		
	STEL	300 ^[1]	^[1]				
Benzene	TWA	1 % ^[3]	^[3]	0.5 %			
	STEL	5		2.5			
Methanol	TWA	200	260	200	262		
	STEL			250	328		
Solvent naphtha, light aliphatic	TWA	^[4]	^[4]		350	100 ^[5]	400 ^[5]
OSHA TABLE COMMENTS: 1. C = Ceiling 2. S = Skin 3. Carcinogen 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-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: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Solubility in Water	Specific Gravity
Benzene, methyl-	40	0.07% (74 deg. F)	0.87
Methanol	52		
Solvent naphtha, light aliphatic	19	Solubility negligible in water.	0.743

PHYSICAL STATE: Liquid

ODOR: Pungent odor.

COLOR: Colorless, clear to light colored liquid.

pH: Essentially neutral.

PERCENT VOLATILE: 100

VAPOR PRESSURE: Not Determined

VAPOR DENSITY: Heavier than air.

BOILING POINT: (147°F) to (302°F)

FREEZING POINT: NDA = no data available.

MELTING POINT: No data available.

FLASHPOINT AND METHOD: (40°F) Lowest flash of chemical constituents within product.

SOLUBILITY IN WATER: Slight

EVAPORATION RATE: Not Established

DENSITY: 6.854

SPECIFIC GRAVITY: 0.740 to 0.873

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

POLYMERIZATION: Avoid heat, flame, and other sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

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)
Solvent naphtha, light aliphatic	> 2000 mg/kg (Rat)	> 2000 mg/kg (rat)	> 5000 ppm / 1 hour (rat)

SKIN ABSORPTION: Skin irritation: slight to moderate (rabbit)

SKIN EFFECTS: Irritating to skin.

CHRONIC: 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 nervous system damage. Not listed as a carcinogen by the NTP, IARC, or OSHA.

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Benzene, methyl-		3	
Benzene	1	1	ii

IARC: 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.

Notes: 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 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.

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 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. Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

TARGET ORGANS: 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.

TERATOGENIC EFFECTS: Prolonged and repeated exposures to high concentrations of some volatile hydrocarbon solvents have resulted in hearing loss in rats. Solvent abusers and noise interaction with these solvents in the work environment may cause symptoms of hearing loss.

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.

COMMENTS: Poison. May be fatal or cause blindness, if swallowed. Cannot be made nonpoisonous.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: It may enter soil and may contaminate water.

ECOTOXICOLOGICAL INFORMATION: Acute Toxicity for Solvent naphtha, light aliphatic:

Fish: Expected to be toxic: LC/EC/IC50 greater than or equal to 10 mg/l

Aquatic Invertebrates: Expected to be toxic: LC/EC/IC50 greater than or equal to 10 mg/l

Algae: Expected to be toxic: LC/EC/IC50 greater than or equal to 10 mg/l

Microorganisms: Expected to be toxic: LC/EC/IC50 greater than or equal to 10 mg/l

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:** (Toluene, Methanol)**PRIMARY HAZARD CLASS/DIVISION:** 3**UN/NA NUMBER:** UN 1993**PACKING GROUP:** II**NAERG:** 128**LABEL:** Flammable liquid**15. REGULATORY INFORMATION****UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

Flammable Liquid



Skull and crossbones

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	Wt. %	CAS	Comments
Benzene, methyl-	50 - 60	108-88-3	
Methanol	21 - 31	67-56-1	
Solvent naphtha, light aliphatic	18 - 28	64742-89-8	Contains: Cyclohexane (110-82-7) 1.50% n-Hexane (110-54-3) 0.02%

TITLE III NOTES: This product contains Solvent naphtha, light aliphatic, which may contain the following constituents: heptane, n- (CAS 142-82-5) less than 2.5% by weight, methylcyclohexane (CAS 108-87-2) less than 2.5% by weight and cyclohexane (CAS 110-82-7) less than 1.5% by weight.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt. %	CERCLA RQ
Benzene, methyl-	50 - 60	1,000
Benzene	< 0.05	10
Methanol	21 - 31	5,000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Benzene, methyl-	108-88-3
Benzene	71-43-2
Methanol	67-56-1
Solvent naphtha, light aliphatic	64742-89-8

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.: Benzene.

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, Benzene.

Chemical Name	Wt. %	Listed
Benzene, methyl-	50 - 60	● Female Reproductive
Benzene	< 0.05	● Cancer ● Developmental Toxicity ● Male Reproductive

RCRA STATUS: 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.

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: New MSDS

HMIS RATING

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

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.

MANUFACTURER DISCLAIMER: The information contained herein is based on the data available to us and is believed to be accurate. However, Tarr Acquisition, LLC (Tarr, LLC) makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Tarr, LLC assumes no responsibility for injuries from the use of the product described herein.