SAFETY DATA SHEET

WORKING COPY

Date Issued : 10/28/2014
SDS No : 10181
Date Revised : 02/04/2019
Revision No : 1

BRAKE CLEAN NC

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BRAKE CLEAN NC
PRODUCT FORMULATION NAME: Brake Clean NC

MANUFACTURER

Tarr, LLC
P.O. Box 12570
Portland, OR 97212
Customer Service: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Flammable Liquids, Category 3
Acute Toxicity (Oral)

GHS LABEL

Flame

Skull and crossbones

Exclamation mark

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.
H302: Harmful if swallowed.
H303: May be harmful if swallowed.
H301: Toxic if swallowed.

PRECAUTIONARY STATEMENTS

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P270: Do not eat, drink or smoke when using this product.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire

danger. Can cause severe lung damage and may be fatal if swallowed. Causes eye and skin irritation or injury. May be harmful if swallowed. May cause CNS depression.

POTENTIAL HEALTH EFFECTS

EYES: Vapors may be irritating to the eye.

SKIN: Irritating to skin. Repeated exposure may cause skin dryness or cracking.

INGESTION: Harmful if swallowed.

INHALATION: Vapors expected to be slightly irritating.

TARGET ORGAN STATEMENT: Cardiovascular system. Central nervous system (CNS).

COMMENTS HEALTH: Possibility of organ or organ system damage from prolonged exposure. Refer to toxicology section 11 for detailed information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS
Solvent naphtha, light aliphatic	40 - 45	64742-89-8
Methanol	35 - 40	67-56-1
Acetone	7 - 10	67-64-1
Toluene	8 - 10	108-88-3

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, contact a physician.

SKIN: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap, if available.

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. Get medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.

SKIN: Skin irritations signs and symptoms may include a burning sensation, redness, swelling and/or blisters.

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.

NOTES TO PHYSICIAN: Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure. Potential for chemical pneumonitis. Consider: gastric lavage with protected airway, administration of activated charcoal.

COMMENTS: In general no treatment is necessary, however, obtain medical advice.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Class IB flammable liquid.

EXTINGUISHING MEDIA: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.

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

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Product will float and can be reignited on surface water. Vapors are heavier than air. Vapors may travel across the ground and distant ignition is possible. Keep adjacent containers cool by spraying with water. Do not use water in a jet.

FIRE FIGHTING EQUIPMENT: Do not enter fire area without proper protection. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: For small liquid spills (less than 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

LARGE SPILL: For large liquid spills (greater than 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Center at (800) 424-8802.

LAND SPILL: This material is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore, releases to the environment may not be reportable under CERCLA.

AIR SPILL: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Vapor may form an explosive mixture with air. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity to the National Response Center at (800) 424-8802.

GENERAL PROCEDURES: Avoid contact with spilled or released material. Immediately remove all contaminated clothing Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapor or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid breathing of or contact with material. Only use in well ventilated areas. Do not enter confined space unless adequately ventilated. Keep container closed. Check that all equipment is properly grounded. Container hazardous when empty. 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. Follow label warnings even after container is emptied. RESIDUAL VAPORS MAY EXPLODE ON IGNITION. DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

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HANDLING: Avoid contact with skin, eyes, and clothing. Extinguish any naked flames. Do Not smoke. Remove ignition sources. Avoid sparks. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (less than or equal to 1 m/sec until fill pipe submerged to twice its diameter, then less than or equal to 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Handle an open container with care in a well-ventilated area. Ventilate workplace in such a way that the Permissible Exposure Limit is not exceeded. Do not empty into drains.

STORAGE: Must be stored in a diked, well-ventilated area, away from sunlight, ignition sources and other sources of heat. Bulk storage tanks should be diked.

STORAGE TEMPERATURE: Ambient

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. Observe all federal, state, and local regulations and National Fire Protection Association (NFPA) Codes with pertain to the specific local conditions of stage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
	EXPOSURE LIMITS			
Chemical Name	**Type**		**ppm**	**mg/m³**
Solvent naphtha, light aliphatic	**OSHA PEL**	**TWA**	[1]	[1]
	Supplier OEL	**TWA**	100 [2]	400 [2]
Methanol	**OSHA PEL**	**TWA**	200	260
	ACGIH TLV	**TWA**	200	262
		STEL	250	328
Acetone	**OSHA PEL**	**TWA**	1000	2400
	ACGIH TLV	**TWA**	500	
		STEL	750	
Toluene	**OSHA PEL**	**TWA**	200	
		STEL	300 [3]	[3]
	ACGIH TLV	**TWA**	50 [4]	188 [4]

Footnotes:
1. Our supplier has adopted, as Interim Standards, the OSHA PELs that were established in 1989 and later rescinded.
2. In the absence of occupational exposure standards for this product, it is recommended that these values are adopted.
3. C = Ceiling
4. S = Skin

ENGINEERING CONTROLS: Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.

PERSONAL PROTECTIVE EQUIPMENT

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EYES AND FACE: Chemical splash goggles (chemical monogoggles).

SKIN: Longer term protection: Nitrile rubber gloves. Incidental contact/Splash protection: PVC or neoprene rubber gloves.

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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Boiling Point (°C)	Freezing Point (°C)	Auto Ignition (°C)	Solubility in Water	Specific Gravity
Solvent naphtha, light aliphatic	-7	93.333		320	Solubility negligible in water.	0.743
Methanol	52					
Acetone	-17.2	56.111	-95.556		Miscible	0.797
Toluene	4.5 TAG CC	111.111		480	0.07% (74 deg. F)	0.87

PHYSICAL STATE: Liquid

ODOR: Hydrocarbon.

APPEARANCE: Colorless.

COLOR: Water-white.

pH: Essentially neutral.

PERCENT VOLATILE: 100

FLASH POINT AND METHOD: ~ -20°C (-4°F) (Calculated)

LOWER EXPLOSION LIMIT: 1.0 % Vol

UPPER EXPLOSION LIMIT: 36% Vol

AUTOIGNITION TEMPERATURE: No data available.

VAPOR PRESSURE: Calculated

VAPOR DENSITY: Heavier than air.

BOILING POINT: 56°C (133°F) calculated

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE: No Data Available.

DENSITY: 6.4 at (60°F)

SPECIFIC GRAVITY: 0.768 to 0.769 15.5°C/60°F

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(VOC): 6.4 LBS./gal.

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

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 TOXICITY

Chemical Name	ORAL LD_{50}	DERMAL LD_{50}	INHALATION LC_{50}
Solvent naphtha, light aliphatic	> 2000 mg/kg (Rat)	> 2000 mg/kg (rat)	> 5000 ppm / 1 hour (rat)
Acetone	5800 mg/kg (Rat)		

DERMAL LD_{50}: > 2000 mg/kg (rat)

ORAL LD_{50}: > 2000 mg/kg (rat)

Notes: Oral LD50 for Toluene: 636 mg/kg (rat).
Oral LD50 for Benzene, a constituent of Toluene: >5,000 mg/kg (rat).
Oral LD50 for Acetone: 5,800mg/kg (rat); Oral LD50 for Solvent naphtha, light aliphatic: >8,000 mg/kg (rat).
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Oral LD50 for Methanol 300mg/kg (human)

INHALATION LC_{50}: > 34000 ppm/1 hour, Rat

RESPIRATORY OR SKIN SENSITISATION: Not expected to be a skin sensitizer.

GERM CELL 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.

CARCINOGENICITY

Chemical Name	IARC Status
Toluene	3

NOTES: At only 10% Volume of this blend, 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.

BRAKE CLEAN NC

COMMENTS: Our supplier reports that information given is based on product testing, and/or similar products and/or components.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Solvent Naphtha, Light Aliphatic Acute Toxicity - Fish and Aquatic Invertebrates: Harmful: 10 less than LC/EC/IC50 less than or equal to 100 mg/l Algae: Low toxicity: LC/EC/IC50 greater than 100 mg/l.

ENVIRONMENTAL DATA: Absorbs to soil and has low mobility. Readily biodegradable. Oxidizes rapidly by photo-chemical reactions in air. Has the potential to bioaccumulate.

DISTRIBUTION: Mobility: Floats on water.

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.

PRODUCT DISPOSAL: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Flammable liquids, N.O.S. (Solvent naphtha, Methanol)

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1993

PACKING GROUP: II

NAERG: 128

REPORTABLE QUANTITY (RQ) UNDER CERCLA: 5,000 lbs.

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

BRAKE CLEAN NC

Flammable Liquid

Toxic-Secondary

R68/22: Harmful: possible risk of irreversible effects if swallowed.
R21/22: Harmful in contact with skin and if swallowed.
S15: Keep away from heat.
S7/9: Keep container tightly closed and in a well-ventilated place.
S23: Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
R23/25: Toxic by inhalation and if swallowed.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HEALTH HAZARDS: This product should be reported as an immediate (acute) health hazard and a fire hazard.

313 REPORTABLE INGREDIENTS: Methanol (67-56-1), Toluene (108-88-3)

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Vol. %	CAS
Toluene	8 - 10	108-88-3

302/304 EMERGENCY PLANNING

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

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Vol. %	CERCLA RQ
Methanol	35 - 40	5,000
Acetone	7 - 10	5,000 LBS.
Toluene	8 - 10	1,000

CERCLA RQ: Solvent naphtha, light aliphatic (CAS 64742-89-8) Reportable quantity: 5,000 lbs.
Methanol (CAS 67-56-1) Reportable quantity: 5,000 lbs
Toluene (CAS 108-88-3) Reportable quantity: 1,000 lbs.
Acetone (CAS 67-64-1) Reportable quantity: 5,000lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Solvent naphtha, light aliphatic	64742-89-8
Methanol	67-56-1
Acetone	67-64-1
Toluene	108-88-3

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TSCA STATUS: Listed.

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, Ethyl Benzene.

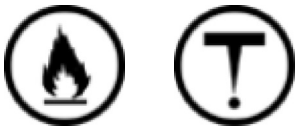
The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause reproductive harm.: Toluene, Methanol, Benzene.

Chemical Name	Vol. %	Listed
Toluene	8 - 10	• Female Reproductive

CLEAN WATER ACT: Cyclohexane (110-82-7) Reportable quantity: 1,000 lbs. Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Center at (800) 424-8802. The components with RQs are given for information.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Flammable Liquid Toxic

S23: Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
R23/25: Toxic by inhalation and if swallowed.

DOMESTIC SUBSTANCE LIST (INVENTORY): Listed.

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

16. OTHER INFORMATION

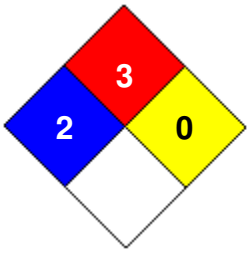
PREPARED BY: Compliance **Date Revised:** 02/04/2019

REVISION SUMMARY: This SDS replaces the 10/28/2014 SDS. Revised: **Section 14:** DOT (DEPARTMENT OF TRANSPORTATION) (TECHNICAL NAME, UN/NA NUMBER, REPORTABLE QUANTITY (RQ) UNDER CERCLA, SECONDARY HAZARD CLASS/DIVISION).

HMIS RATING

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA CODES



NFPA STORAGE CLASSIFICATION: These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

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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 SDS must be considered.

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.