MATERIAL SAFETY DATA SHEET

BRAKE CLEANER NC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Tarr, Inc. of Arizona
4115 W. Turney Avenue

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: **BRAKE CLEANER NC**

PRODUCT NUMBER: BCNC

UPC NUMBER:

PREPARED BY: Cynthia Millage

DATE PREPARED: 12/3/1998

LAST REVISION: 12/3/1998

SYNONYMS:

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

Print Date: 12/27/2004

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV	NOTE
Solvent naphtha, light aliphatic	64742-89-8	52-62	300 ppm	300 ppm	
Heptane, n-	142-82-5	1-7	500 ppm	400 ppm	
Toluene	108-88-3	16-12	100 ppm	50 ppm (skin)	
Methylcyclohexane	108-87-2	1-7	400 ppm	400 ppm	
Cyclohexane	110-82-7	1-2	300 ppm	300 ppm	
Isopropyl alcohol	67-63-0	35	400 ppm	400 ppm	

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER! Extremely flammable liquid and vapor.

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: Irritating to the gastrointestinal tract, causing abdominal pain and vomiting, sometimes bloody. Ingestion may casue CNS depression, low blood pressure, rapid heart beat and liver damage.

SKIN CONTACT: 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).

SIGNS AND SYMPTOMS OF EXPOSURE:
Irritation as noted above. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea: In extreme cases, unconsciousness and death may occur. Liver damage may be evidenced by loss of appetite, jaundice and sometimes pain in the upper abdomen on the right side.

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. If irritation persists, get medical attention.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

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 preexsiting disorders may be aggravated by exposure to this product.

SUPPLEMENTAL HEALTH INFORMATION:

See last page of MSDS for Supplemental Health Information.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: 54F **FLASH POINT METHOD USED:** Tag Closed Cup

AUTOIGNITION: NDA **LEL:** 0.01 **UEL:** 0.12

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:

Test data indicate the best protection is provided by neoprene, nitrile, and natural rubber gloves.

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 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: Colorless, clear liquid. Mild odor.

BOILING POINT:	177F	**PERCENT VOLATILE:**	100
VAPOR PRESSURE:	78	**PH:**	
EVAPORATION RATE:	Slower than ether	**MOLECULAR WEIGHT:**	NDA
POUNDS PER GALLON:		**VAPOR DENSITY:**	Heavier than air
SPECIFIC GRAVITY:	0.78	**OTHER PROPERTIES:**	
MELTING POINT:	-127		
FREEZING POINT:	NDA		

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Avoid heat, sparks, flame and contact with strong oxidizing agents. Do not store or handle in aluminum equipment at temperatures above 120 deg. F.

INCOMPATIBILITY:

Strong oxidizers.

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. Do not store or handle in aluminum equipment at temperatures ab

11. TOXICOLOGY INFORMATION

This product may contain benzene (CAS No. 71-43-2) at a concentration less than 300 ppm.

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. (naphtha , 2-propanol)	**PACKING GROUP:**	II
		GUIDE NUMBER:	128
HAZARD CLASS:	3	**DOT CLASS:**	Flammable liquid
UN NUMBER:	UN 1993		

15. REGULATORY INFORMATION

This product is listed on the EPA/TSCA inventory of chemical substances. Per 40 CFR part 82, this product does not contain nor was it directly manufactured with any class I or class II ozone depleting substance.

16. OTHER INFORMATON

HMIS INFORMATION: **HEALTH:** 2 **FLAMMABILITY:** 4 **REACTIVITY:** 0 **PROTECTIVE:** G

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:	This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.
SARA 313:	Toluene (108-88-3) and cyclohexane (110-82-7)
Supplemental Information:	Other test rule related studies: 3) Rat oral reproductive toxicity: in the rat reproductive toxicity study, the NOAEL for reproduction indices was 1000 mg/kg, however, there was a marked increase in post-weaning pup mortality at this level**. The NOAEL for this effect was 500 mg/kg. Also, the NOAEL for parental female body weight decrease was 100 mg/kg. 4) In adults (max dose 5000 ppm) or offspring (max dose 1200 mg/kg). 5) Subchronic rat and mouse inhalation toxicity. The subchronic NOAEL was 500 ppm based on clinical signs of CNS depression (both species) and increased body weight and blood effects (rat only) seen at 1500 ppm. (note: The information tagged by "**" above were submitted to EPA under the requirements of TSCA: 8(e).)
	In Response to a TSCA test rule, several studies of isopropanol (IPA) have been completed. The studies and their results are as follows: 1) Both mutagenicity studies, the mouse mononucleus and CHD assays, were negative. 2) Rat and rabbit oral teratogenicity and developmental toxicology: A) There was no evidence that IPA caused teratogenicity in rats or rabbits. B) Developmental toxicity was seen in rats at 1200 mg/kg (evidenced by decrease body weight**) while no developmental toxicity was seen in the rabbit study. For rats, the NOAEL was 400 mg/kg: for rabbits, 480 mg/kg. This work also identified pregnant rabbits to be approximately eight times more sensitive to IPA's lethal effects than non-pregnant rabbits**.

N/A = Not Applicable
NDA = No Data Available

Disclaimer

The information contained herein is based on the data available to us and is believed to be accurate. However, Tarr, Incorporated makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Tarr, Inc. assumes no responsibility for injuries from the use of the product described herein.