MATERIAL SAFETY DATA SHEET

Date Issued: 08/18/2005
MSDS No: 4002

HD CLEANER #5

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: HD CLEANER #5
PRODUCT CODE: 4002, 4118, HDC5

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: CAUTION! Product may be slippery. May be harmful or fatal if swallowed - can enter lungs and cause damage. May cause eye and skin irritation or injury.

POTENTIAL HEALTH EFFECTS

EYES: Material may cause eye irritation. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

SKIN: May cause skin irritation. Symptoms may include redness, burning sensation and/or swelling.

INGESTION: Single dose oral toxicity is low. Small amounts swallowed incidental to normal handling operations are not likely to cause to injury, swallowing larger amounts may cause injury.

INHALATION: May cause headaches and dizziness. May cause irritation to the respiratory tract.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Shortness of breathing, confused behavior, redness of skin, swelling of tissues, watery eyes, and nausea.

CHRONIC EFFECTS: Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisiting disorders may be aggravated by exposure to this product. Overexposure to the material has been suggested as a cause of the following effects in laboratory animals: mild, reversible spleen effects blood abnormalities, liver abnormalities, kidney damage. Developmental Information: This material has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
Amides, C12-C18, N,N-bis (Hydroxyethyl)	4 - 10	68155-06-6	- -
Silicic acid (H2SiO3), disodium salt	25 - 32	6834-92-0	229-912-9
2- Butoxyethanol	10 - 15	111-76-2	2039050
TEA-Lauryl Sulfate	6 - 15	139-96-8	205-388-7
Poly(oxy-1,2-ethanediyl),-(nonly1phenyl)-w-hydroxy	5 - 12	9016-45-9	xxx-xxx-x
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt	5 - 15	64-02-8	200-573-9
Blue hpH Dye	< 1		

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get immediate medical attention.

SKIN: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: Do not give liquids if victim is unconscious or drowsy. Otherwise, give 2 glasses of water and induce vomiting by giving 30cc syrup of ipecac (or touching finger to the back of victim's throat). Keep victim's head below hips while vomiting. Call doctor.

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: > (200°F)

FLAMMABLE LIMITS: 0.003 to 0.01

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical.

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.

COMMENTS: Water run off from fire fighting may be slippery.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

LARGE SPILL: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Wear appropriate personal protective equipment when responding to spills. Shut off source of leak if safe to do so. Dike and contain spill. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Contain run-off from residue flush and dispose of properly. Prevent

runoff from entering drains, sewers, streams, basements or confined areas.

ENVIRONMENTAL PRECAUTIONS

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

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. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

HANDLING: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

STORAGE: Store in a cool dry place.

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		SupplierOEL	
Chemical Name		**ppm**	**mg/m³**	**ppm**	**mg/m³**	**ppm**	**mg/m³**
Silicic acid (H2SiO3), disodium salt	**TWA**	NL ppm [1]	NL mg/m3 [1]	NL ppm	NL mg/m3	NL ppm	NL mg/m3
	STEL	NL ppm	NL mg/m3	NL ppm	NL mg/m3	NL ppm	NL
2- Butoxyethanol	**TWA**	50 [1]	240 [1]	20 [2]	97 [2]	NL	NL
	STEL					NL	NL
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt	**TWA**	NL ppm [1]	NL mg/m3 [1]	NL ppm	NL mg/m3	NL ppm	NL mg/m3
	STEL	NL ppm	NL mg/m3	NL ppm	NL mg/m3	NL ppm	NL mg/m3

OSHA TABLE COMMENTS:
1. NL = Not Listed
2. S = Skin

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

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

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

PROTECTIVE CLOTHING: Where splashing is possible, wear impervious clothing and boots.

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

Chemical Name	Flash Point (°C)	Boiling Point (°C)	Freezing Point (°C)	Solubility in Water	Specific Gravity
Silicic acid (H2SiO3), disodium salt				61g/100g water @ 30 deg. C (86 deg. F)	
2- Butoxyethanol	66	170.5 760 mmHg	-65	Soluble	0.902

PHYSICAL STATE: Liquid

ODOR: Butyl odor.

APPEARANCE: Blue liquid.

VAPOR PRESSURE: 1.46

VAPOR DENSITY: Heavier than air.

BOILING POINT: (51°F)

FREEZING POINT: NDA = no data available.

MELTING POINT: No data available.

FLASHPOINT AND METHOD: > (200°F)

SOLUBILITY IN WATER: Dispersible

EVAPORATION RATE: Slower than ether.

DENSITY: 8.76

SPECIFIC GRAVITY: 0.995 to 1.051

(VOC): 0.225 lbs./gal.

10. STABILITY AND REACTIVITY

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.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide 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)
2- Butoxyethanol	> 500 to 2000 mg/kg (guinea pig)	> 2000	to 0 No deaths at highest tested does./1 hours, guinea pig.

INHALATION LC_{50}: Acute Toxicity tests reported by supplier on Ethylene Glycol Monobutyl Ether produced the following results: Dermal - LD50: >2.0 g/kg (Guinea Pig), Inhalation - LC50: >633 ppm (v) (Guinea Pig) 1 hour(s), Oral - LD50: 1.4 g/kg (Guinea PIg). Eye Irritation: Severe (rabbbit). Skin Irritation: Moderate (rabbit).

CARCINOGENICITY

Chemical Name	IARC Status
2- Butoxyethanol	3

NTP: Cancer Information: The National Toxicology Program (NTP, 1998) has conducted lifetime inhalation biassays in rats and mice at concentrations up to 125 ppm and 250 ppm 2-butoxyethanol, respectively. NTP found no evidence of carcinogenic activity in male rats, equivocal evidence in female rats based on adrenal tumors, and some evidence in male and female mice based on liver hemangiosarcoma and for stomach tumors. The relevance of these findings to humans is questionable. NTP concludes that the human carcinogenic potential of this material cannot be determined at this time. Reproductive and Developmental Toxicity: Inhalation exposure of pregnant rabbits caused some lethality at 200 ppm, but there were no effects at 100 ppm and below. In another study in rats, by the same route, irritancy was noted in the dams and a related fetotoxicity was observed at 100 and 200 ppm, but there were no effects 50 ppm and below. Birth defects were not noted in either study.

Notes: This product may contain ethylene oxide (CAS No. 75-21-8) at a concentration up to 5 ppm. Target Organ Effects: Studies with rabbits indicate that sustained, concluded skin contact with undiluted surfactant may result in the development of inflammatory changes in the lung. 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. Developmental Information: Based on the available information, risk to the fetus from maternal exposure to this material cannot be

assessed. Cancer Information: There is no information available. The chance of this material causing cancer is unknown. This material is not listed as a carcinogen by the International Agency for Research on Cancer, The National Toxicology Program, or the Occupational Safety and Health Administration. May contain up to 5 ppm of ethylene oxide, (CAS 75-21-8). Ethylene oxide has been determined to be a cancer and reproductive hazard by the state of California. The OSHA PEL and ACGIH TLV for ethylene oxide is 1 ppm.

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: Not DOT Regulated as a hazardous material.

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, and a delayed (chronic) health hazard.

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

313 REPORTABLE INGREDIENTS: 2-butoxyethanol and glycol ethers are listed.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS	Comments
Poly(oxy-1,2-ethanediyl),-(nonly1phenyl)-w-hydroxy	5 - 12	9016-45-9	May contain ethylene oxide (CAS 75-21-8) at a concentration up to 5 ppm.

TITLE III NOTES: One ingredient in this product, poly(oxy-1,-ethane diyl),-(nonlyl)-w-hydroxy (CAS 9016-45-9), may contain ethylene oxide (CAS 75-21-8) at a concentration up to 5 ppm.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Silicic acid (H2SiO3), disodium salt	6834-92-0
2- Butoxyethanol	111-76-2
TEA-Lauryl Sulfate	139-96-8
Poly(oxy-1,2-ethanediyl),-(nonly1phenyl)-w-hydroxy	9016-45-9
Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt	64-02-8

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

16. OTHER INFORMATION

REASON FOR ISSUE: Updated to new MSDS format.

PREPARED BY: P. Rodabaugh

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	2
FLAMMABILITY:	0
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	X

ADDITIONAL MSDS INFORMATION: Last revision 08/24/1999.

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.