MATERIAL SAFETY DATA SHEET



Date Issued: 03/02/2006 MSDS No: BWFD Date-Revised: 11/04/2008

Revision No: 2

BRAKE WASH FD

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BRAKE WASH FD

PRODUCT CODE: BWFD

MANUFACTURER

Tarr, LLC P.O. Box 12570 Portland OR 97212

Service Number: 503-288-5294

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. Vapor harmful. May be fatal or cause blindness if swallowed. Avoid prolonged breathing of vapors. Avoid contact with eyes and skin.

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

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 cause irritation of the digestive tract and may have a narcotic effect including signs of CNS depression such as dizziness, headache, drowsiness, loss of coordination, and fatigue.

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

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: 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. Target Organ Effects: Prolonged and repeated exposure to n-hexane may cause peripheral neuropathy by damaging peripheral nerve tissue (that of the arms and legs) and result in muscular weakness and loss of sensation. 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, nervous system damage, testis damage, lung damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: visual impairment, central nervous system effects.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | Wt.% | CAS |
|---------------|---------|-------------|
| Hexane | 80 - 86 | 000110-54-3 |
| Methanol | 14 - 20 | 000067-56-1 |

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation occurs or persists.

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: 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 person exposed to this material. this material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting. See Aggravated Medical Conditions.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (-10°F) Lowest flash of chemical constituents within product.

FLAMMABLE LIMITS: 0.01 to 0.36

AUTOIGNITION TEMPERATURE: Not Determined

EXTINGUISHING MEDIA: Use regular foam, dry chemical, or carbon dioxide (CO2).

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

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

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personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: WARNING. Extremely 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. 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.

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 | | SupplierOEL | | | |
| Chemical Name | | ppm | mg/m³ | ppm | mg/m³ | ppm | mg/m³ | | |
| Hexane | TWA | 500 [1] | 1800 [1] | 50 | 180 | NL | NL | | |
| | STEL | | | | | NL | NL | | |
| Methanol | TWA | 200 | 260 | 200 | 262 | | | | |
| | STEL | | | 250 | 328 | | | | |

OSHA TABLE COMMENTS:

1. NL = Not Listed

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: Use chemical safety goggles and/or full face shield where splashing is possible.

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Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

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: 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.

COMMENTS: 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: Pungent odor.

COLOR: Clear, colorless liquid.

pH: Not Applicable

PERCENT VOLATILE: 100

VAPOR DENSITY: Heavier than air.

BOILING POINT: (147°F) to (159°F)

FREEZING POINT: (14.0°F)

MELTING POINT: No data available.

FLASHPOINT AND METHOD: (-10°F) Lowest flash of chemical constituents within product.

SOLUBILITY IN WATER: Partially Soluble

EVAPORATION RATE: Slower than ether.

DENSITY: 5.857

SPECIFIC GRAVITY: 1.000 to 0.686

(**VOC**): to 5.857 lbs./gal.

10. STABILITY AND REACTIVITY

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

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

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, carbon dioxide and unidentified organic compounds may be formed during combustion.

INCOMPATIBLE MATERIALS: Strong oxidizers.

11. TOXICOLOGICAL INFORMATION

TARGET ORGANS: 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.

GENERAL COMMENTS: Developmental Information: This material (or a component) 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.

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

12. ECOLOGICAL INFORMATION

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: Flammable Liquids, N.O.S.

TECHNICAL NAME: (n-hexane and methanol)

PRIMARY HAZARD CLASS/DIVISION: 3

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UN/NA NUMBER: UN 1993

PACKING GROUP: II

NAERG: 128

LABEL: Flammable liquid

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: n-hexane (CAS 110-54-3), methyl alcohol (CAS 67-56-1)

302/304 EMERGENCY PLANNING

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

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.: 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.: Benzene.

16. OTHER INFORMATION

REASON FOR ISSUE: Updated MSDS information.

PREPARED BY: Compliance Dept.

REVISION SUMMARY: Revision #: 2. This MSDS replaces the November 12, 2007 MSDS.

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HMIS RATING

| HEALTH: | 3 |
|----------------------|---|
| FLAMMABILITY: | 3 |
| PHYSICAL HAZARD: | 0 |
| PERSONAL PROTECTION: | Н |

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.

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