MATERIAL SAFETY DATA SHEET

BRAKE WASH RD

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Print Date: 10/27/2004

PRODUCT NAME: **BRAKE WASH RD**

PRODUCT NUMBER: BWRD

UPC NUMBER:

PREPARED BY: Patricia Rodabaugh

DATE PREPARED: 10/10/2002

LAST REVISION: 10/10/2002

SYNONYMS: (sample)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV	NOTE
Hexane, n-	110-54-3	58-62	50 ppm	50 ppm	
Toluene	108-88-3	20-30	100 ppm	50 ppm (skin)	
Acetone	67-64-1	3-7	750 ppm	750 ppm	
Isopropyl alcohol	67-63-0	8-12	400 ppm	400 ppm	

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: WARNING! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapro harmful.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Liquid and vapor may cause eye irritation.

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.

INGESTION: Liquid is moderately toxic and may be harmful if swallowed; may produce CNS depression. 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. pneumontis.

SKIN CONTACT: 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:

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. Get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention immediately.

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.

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:

Intentional abuse of toluene vapors has been linked to damage of brain, liver, kidney and to death. Many case sutdies involving abuse during pregnancy clearly indicate that toluene is a developmental toxicant.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: -7F **FLASH POINT METHOD USED:** Tag Closed Cup

AUTOIGNITION: N/A **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 emergenc

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:

Wear gloves and protective clothing which are impervious to this product for the duration of anticipated exposure, if there is potential for skin contact.

WORK / HYGENIC PRACTICES:

Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, 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: Infinite in water

APPEARANCE AND ODOR: Colorless, clear liquid. Mild odor.

BOILING POINT:	147F	**PERCENT VOLATILE:**	100
VAPOR PRESSURE:	125	**PH:**	
EVAPORATION RATE:	Slower than ether	**MOLECULAR WEIGHT:**	NA
POUNDS PER GALLON:	6.16	**VAPOR DENSITY:**	Heavier than air
SPECIFIC GRAVITY:	0.72 - 0.76	**OTHER PROPERTIES:**	
MELTING POINT:	-127		
FREEZING POINT:	NA		

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

Laboratory studies have shown that petroleum distillates may cause kidney, liver, or lung damage. Reports have associated repeated, prolonged

overexposure to solvents with permanent brain and nervous system damage.

12. ECOLOGICAL INFORMATION

Keep out of waterways. 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. (hexane, toluene)	**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:** 3 **REACTIVITY:** 0 **PROTECTIVE:** H

SARA Title III Information:

SARA 302:	To the best of our knowledge, this product is not listed as an extremely hazardous substance.
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), hexane (110-54-3)
Additional Health	This product contains the following chemicals known to the State of California to cause cancer & reproductive toxicity: Benzene, Toluene

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 causeing 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.

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.

N/A = Not Applicable
NDA = No Data Available

Disclaimer

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