Material Safety Data Sheet

Zep Sales & Service, A Unit of Zep Inc.
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1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name **BRAKE WASH (AEROSOL)**

Product use Aerosol Brake Cleaner

Product code **0287**

Date of issue **04/16/08** **Supersedes 08/30/07**

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
INFOTRAC: (877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

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Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

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DANGER

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. Keep away from sources of ignition - No smoking. CAUSES EYE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED.

CONTENTS UNDER PRESSURE.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry Dermal contact. Inhalation.

Eyes Contact may cause eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin Direct contact may cause irritation and redness. Skin inflammation is characterized by itching, scaling, or reddening. Product may be dermal absorbed. Defatting properties, may aggravate an existing dermatitis

Inhalation Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system (CNS) depression. High vapor concentrations can cause headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.

Ingestion Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage. Vomiting increases risk of chemical pneumonia or pulmonary edema caused by aspiration of hydrocarbon solvents.

Chronic effects

Overexposure of this product by inhalation or absorption can produce central nervous system depression resulting in headache, nausea and/or dizziness. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Repeated or prolonged exposure to the substance can produce damage to kidneys, lungs, liver, heart, brain, central nervous system (CNS).

Carcinogenicity Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
HEPTANE; n-heptane	142-82-5	80 - 90
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	1 - 10
METHANOL; methyl alcohol; wood alcohol; columbia spirits	67-56-1	<5
ISOPROPYL ALCOHOL; ipa; dimethylcarbinol; 2-propanol	67-63-0	<3
CARBON DIOXIDE	124-38-9	<5

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.

Skin Contact Immediately wash with water and soap and rinse thoroughly. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion ASPIRATION HAZARD. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Closed cup: <-18°C (<0°F) (Tagliabue.)

Flammable Limits Lower: 1.2%
Upper: 6.7%

Flammability Extremely flammable. (CSMA) Aerosol that may flash back.

Fire hazard FLAMMABLE LIQUID AND VAPOR. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Fire-Fighting Procedures Use dry chemical or CO_2. Fire-fighters should wear appropriate protective equipment. Cool containers with water jet in order to prevent pressure build-up, auto-ignition or explosion.

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Extremely flammable liquid and vapor. Store and use away from heat, sparks, open flame or any other ignition source. Put on appropriate personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Do not ingest. Wash thoroughly after handling. Wash contaminated clothing before reusing. Observe label precautions.

Storage CONTENTS UNDER PRESSURE. Do not puncture or incinerate. Do not store above the following temperature: 49°C (120.2°F). Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name	Exposure limits
HEPTANE; n-heptane	**ACGIH/OSHA (United States).** TWA: 400 ppm 8 hour(s). **ACGIH/OSHA (United States).** STEL: 400 ppm 15 minute(s).
ETHANOL; ethyl alcohol; grain alcohol	**ACGIH TLV / OSHA PEL (United States).** TWA: 1000 ppm 8 hour(s).
METHANOL; methyl alcohol; wood alcohol; columbia spirits	**OSHA/ACGIH (United States).** TWA: 200 ppm 8 hour(s). **OSHA /ACGIH (United States).** STEL: 250 ppm 15 minute(s).
ISOPROPYL ALCOHOL; ipa; dimethylcarbinol; 2-propanol	**ACGIH TLV (United States).** TWA: 200 ppm 8 hour(s). **OSHA PEL (United States).** TWA: 400 ppm 8 hour(s). **ACGIH/OSHA (United States).** STEL: 400 ppm 15 minute(s).
CARBON DIOXIDE	**ACGIH TLV (United States).** TWA: 5000 ppm 8 hour(s). STEL: 30000 ppm 15 minute(s).

Personal Protective Equipment (PPE)

Eyes Safety glasses.

Body Wear appropriate protective clothing to prevent skin contact. Recommended Viton gloves. Nitrile gloves. Neoprene gloves.

Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Wear appropriate respirator when ventilation is inadequate.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]
pH Not applicable
Boiling Point Not determined.
Specific Gravity 0.69 (Water = 1)
Solubility insoluble in water.

Color Clear
Odor Hydrocarbon. [Slight]
Vapor Pressure 5.9 kPa (44 mm Hg)
Vapor Density >1 [Air = 1]
Evaporation Rate Not determined.
VOC (Consumer) 95.3% 5.51 (lb/gal) 660 (g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products carbon oxides (CO, CO_2)

Section 11. Toxicological Information

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Heptane	LD50 Oral	Mouse	15000 mg/kg	-
	LC50 Inhalation Gas.	Mouse	18295 ppm	2 hours
Ethanol	LD50 Oral	Rat	7060 mg/kg	-
	LC50 Inhalation Vapor	Rat	20000 mg/m³	4 hours
Methanol	LD50 Oral	Rat	5628 mg/kg	-
Isopropyl Alcohol	LD50 Dermal	Rabbit	13000 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
	LC50 Inhalation Vapor	Rat	22500 ppm	8 hours
	LC50 Inhalation Vapor	Rat	19000 ppm	8 hours

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Not available.

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D001
Classification: - [Hazardous waste.]
Origin: - [RCRA waste.]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	None.	Consumer commodity	ORM-D	-	
IMDG Class	Not determined.			I	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.
PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:

Product name

Methanol

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: Methanol

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65

WARNING: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. : Toluene

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.*