

# Material Safety Data Sheet



Zep Inc.  
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Atlanta, GA 30318  
1-877-I-BUY-ZEP (428-9937)  
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## Section 1. Chemical Product and Company Identification

**Product name** BRAKE FLUSH (AEROSOL)  
**Product use** Aerosol Brake Parts Cleaner.  
**Product code** 0207  
**Date of issue** 02/10/09 **Supersedes** 08/30/07

### Emergency Telephone Numbers

#### For MSDS Information:

Compliance Services 1-877-I-BUY-ZEP (428-9937)

#### For Medical Emergency

(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

#### Prepared By

Compliance Services  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

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## Section 2. Hazards Identification

### Emergency overview

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

**DANGER !**



EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. KEEP AWAY FROM SOURCES OF IGNITION. NO SMOKING. CAUSES EYE AND SKIN IRRITATION. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED.

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

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

ACETONE; dimethyl ketone

67-64-1

40 - 50

HEPTANE; n-heptane

142-82-5

30 - 40

ETHANOL; ethyl alcohol; grain alcohol

64-17-5

5 - 15

ISOPROPYL ALCOHOL; ipa; dimethylcarbinol; 2-propanol

67-63-0

0 - 5

CARBON DIOXIDE

124-38-9

5 - 15

**Section 4. First Aid Measures**

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Immediately wash with water and soap and rinse thoroughly. Wash clothing before reuse. Get medical attention if irritation develops.
<b>Inhalation</b>	Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	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.)



<b>Flash Point</b>	Closed cup: <-18°C (<0°F) (Tagliabue.)
<b>Flammable Limits</b>	Lower: 1.2% Upper: 6.7%
<b>Flammability</b>	Extremely flammable. (CSMA) Aerosol that may flash back.
<b>Fire hazard</b>	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.
<b>Fire-Fighting Procedures</b>	Use dry chemical or CO <sub>2</sub> . 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**

<b>Spill Clean up</b>	Large spills are unlikely due to packaging.
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**Section 7. Handling and Storage**

<b>Handling</b>	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.
<b>Storage</b>	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**

ACETONE; dimethyl ketone

**Exposure limits**

ACGIH TLV / OSHA PEL (United States).

TWA: 750 ppm 8 hour(s).

ACGIH / OSHA (United States).

STEL: 1000 ppm 15 minute(s).

ACGIH/OSHA (United States).

TWA: 400 ppm 8 hour(s).

ACGIH/OSHA (United States).

STEL: 400 ppm 15 minute(s).

ACGIH TLV / OSHA PEL (United States).

TWA: 1000 ppm 8 hour(s).

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)**

<b>Eyes</b>	Safety glasses.
<b>Body</b>	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

<b>Physical State</b>	Liquid. [Aerosol.]	<b>Color</b>	Clear , Colorless.
<b>pH</b>	Not applicable	<b>Odor</b>	Solvent. [Slight]
<b>Boiling Point</b>	Not available.	<b>Vapor Pressure</b>	Not available.
<b>Specific Gravity</b>	0.74	<b>Vapor Density</b>	>1 [Air = 1]
<b>Solubility</b>	insoluble in water.	<b>Evaporation Rate</b>	8 (Butyl acetate. = 1)
		<b>VOC (Consumer)</b>	44.9% 2.77 (lb/gal) 332 (g/l).

### Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	The product is stable.
<b>Incompatibility</b>	Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Hazardous Decomposition Products</b>	carbon oxides (CO, CO <sub>2</sub> )

### Section 11. Toxicological Information

#### Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Dermal	Rabbit	20000 mg/kg	-
	LD50 Oral	Mouse	9750 mg/kg	-
	LC50 Inhalation Vapor	Rat	16000 ppm	4 hours
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/m <sup>3</sup>	4 hours
Isopropyl Alcohol	LD50 Dermal	Rabbit	5030 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-
	LC50 Inhalation Vapor	Rat	16000 ppm	4 hours

### Section 12. Ecological Information

<b>Environmental Effects</b>	No known significant effects or critical hazards.
<b>Aquatic Ecotoxicity</b>	

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.

<b>Waste Stream</b>	Code: D001
	Classification: - [Hazardous waste.]
	Origin: - [RCRA waste.]

### Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
<b>DOT Classification</b>		Consumer commodity	ORM-D	-	
<b>IMDG Class</b>	Not determined.				

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**

No products were found.

**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:** No products were found.

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.