

Safety Data Sheet



Super Solutions

Zep, Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name Z-MAXX BRAKE WASH (X-4402)
Product use Non-Chlorinated Brake Parts Cleaner
Product code 0666
Date of issue 11/08/12 **Supersedes** 01/19/12

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

1064



ADVANCED AUTO PRO'S
2527 8TH AVE
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Section 2. Hazards Identification

Emergency overview
DANGER!

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

2 0

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES EYE AND SKIN IRRITATION. VAPOR HARMFUL. HARMFUL OR FATAL IF SWALLOWED.

Keep away from heat, sparks and flame. Eliminate all ignition sources. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Do not smoke.

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. Eye contact. Inhalation.

Eyes

Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin

Causes skin irritation. Skin inflammation is characterized by itching, scaling, or reddening. Defatting properties, may aggravate an existing dermatitis

Inhalation

Avoid breathing vapors, spray or mists. Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. Can cause central nervous system (CNS) depression.

Ingestion

May be fatal if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects

Over-exposure by inhalation may cause respiratory irritation. Prolonged skin contact may cause dermatitis with drying and cracking of skin. Contains material which may cause damage to the following organs: upper respiratory tract, skin, central nervous system (CNS).

Carcinogenicity

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

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

| Name of Hazardous Ingredients | CAS number | % by Weight |
|--------------------------------------|-------------|-------------|
| Heptane, branched, cyclic and linear | 426260-76-6 | >90 |
| heptane | 142-82-5 | <5 |

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a
Get medical attention immediately.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. If vomiting occurs, keep head lower than hips to help prevent aspiration. Do not induce vomiting unless directed to do so by medical personnel. 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: -9.4°C (15.1°F)
[Tagliabue.]



Flammable Limits Lower: 1.2%
Upper: 6.7%

Flammability Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
EXTREMELY FLAMMABLE LIQUID AND VAPOR.

Fire hazard Extremely flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Fire-Fighting Procedures Use dry chemical, CO₂, water spray (fog) or foam.

Section 6. Accidental Release Measures

Spill Clean up Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Store and use away from heat, sparks, open flame or any other ignition source. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected 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 container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name

HEPTANE; n-heptane

Exposure limits

ACGIH TLV (United States, 1/2009).

TWA: 400 ppm 8 hour(s).

TWA: 1640 mg/m³ 8 hour(s).

STEL: 500 ppm 15 minute(s).

STEL: 2050 mg/m³ 15 minute(s).

OSHA PEL 1989 (United States, 3/1989).

TWA: 400 ppm 8 hour(s).

TWA: 1600 mg/m³ 8 hour(s).

STEL: 500 ppm 15 minute(s).

STEL: 2000 mg/m³ 15 minute(s).

NIOSH REL (United States, 6/2008).

TWA: 85 ppm 10 hour(s).

TWA: 350 mg/m³ 10 hour(s).

CEIL: 440 ppm 15 minute(s).

CEIL: 1800 mg/m³ 15 minute(s).

OSHA PEL (United States, 11/2006).

TWA: 500 ppm 8 hour(s).

TWA: 2000 mg/m³ 8 hour(s).

Personal Protective Equipment (PPE)

Eyes Splash goggles.

Body Wear appropriate protective clothing to prevent skin contact.
Recommended: Viton gloves. Neoprene gloves. Nitrile 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. [Clear.] | Color | Colorless. |
| pH | Not available. | Odor | Hydrocarbon. [Slight] |
| Boiling Point | 91°C (195.8°F) | Vapor Pressure | 4.7 kPa (35.6 mm Hg) [20°C] |
| Specific Gravity | 0.693 | Vapor Density | 3.5 [Air = 1] |
| Solubility | Insoluble in the following materials: cold water and hot water. | Evaporation Rate | >1 (butyl acetate = 1) |
| | | VOC (Consumer) | 678.83 (g/l). 5.66 lbs/gal 100.00% |

Section 10. Stability and Reactivity

| | |
|---|---|
| Stability and Reactivity | The product is stable. |
| Incompatibility | Reactive or incompatible with the following materials: oxidizing materials and acids. Keep away from heat, sparks and flame. |
| Hazardous Polymerization | Under normal conditions of storage and use, 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, branched, cyclic and linear | LD50 Dermal | Rabbit | >2 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| heptane | LC50 Inhalation Gas. | Rat | 48000 ppm | 4 hours |
| | LC50 Inhalation Vapor | Rat | 103 g/m ³ | 4 hours |

Section 12. Ecological Information

Environmental Effects Not available.

Aquatic Ecotoxicity



| Product/ingredient name | Test | Result | Species | Exposure |
|-------------------------|------|------------------------------------|---|----------|
| heptane | - | Acute LC50 375000 ug/L Fresh water | Fish - Mozambique tilapia - Oreochromis mossambicus - 99 mm - 10 | 96 hours |

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: Ignitable hazardous waste.
Origin: RCRA waste.

Section 14. Transport Information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label |
|------------------------|-----------|----------------------|---------|-----|---|
| DOT Classification | 1206 | Heptanes | 3 | II |  |
| IMDG Class | 1206 | Heptanes | 3 | II |  |

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:
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.

TSCA 8(a) PAIR: heptane

TSCA 8(a) IUR: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

State Regulations

California Prop 65 No products were found.

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.

Material Safety Data Sheet



Superior Solutions

Zep Inc.
1310 Seaboard Industrial Blvd.
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www.zep.com

Section 1. Chemical Product and Company Identification

Product name FORMULA 50
Product use General Purpose Cleaner
Product code 0859
Date of issue 06/08/09 **Supersedes** 08/11/08

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-1-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
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Prepared By

Compliance Services
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Advanced Auto Pro's
2527 8th Ave
Greeley CO 80631-8409

Printing date: 06/08/09

Section 2. Hazards Identification

Emergency overview

DANGER !

CAUSES EYE BURNS. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.

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



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. Eye contact. Inhalation.

- Eyes** Causes eye burns. Direct contact with the eyes can cause irreversible damage, including blindness.
- Skin** Causes skin irritation. Harmful if absorbed through the skin. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.
- Inhalation** Avoid breathing vapors, spray or mists. Inhalation of the spray or mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. Can cause central nervous system (CNS) depression.
- Ingestion** Harmful if swallowed. May cause burns to mouth, throat and stomach.

Chronic effects

Overexposure of this product by inhalation or absorption can produce central nervous system depression resulting in headache, nausea and/or dizziness. Contains material which may cause damage to the following organs: blood, kidneys, liver.

Carcinogenicity

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

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|-------------------------|-------|------|-----|-------|-----|------|
| None. | | | | | | |

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

| Name of Hazardous Ingredients | CAS number | % by Weight |
|--|------------|-------------|
| ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve | 111-76-2 | 1 - 5 |
| SODIUM METASILICATE; silicic acid (H2-Si-O3) disodium salt; water glass | 6834-92-0 | 1 - 5 |
| SODIUM DODECYLBENZENE SULFONATE; linear alkyl aryl sodium sulfonate; Sodium DDBSA | 25155-30-0 | 1 - 5 |
| TETRASODIUM ETHYLENEDIAMINE TETRAACETATE; ethylenediamine tetraacetic acid; tetrasodium salt | 64-02-8 | 1 - 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** Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.
- Inhalation** Move exposed person to fresh air. Get medical attention if adverse health effects persist or are severe.
- Ingestion** Do not induce vomiting unless directed to do so by medical personnel. If affected person is conscious, give plenty of water to drink. 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** Nonc.
- Flammable Limits** Not applicable
- Flammability** Non-combustible.
- Fire hazard** May emit toxic fumes under fire conditions.
- Fire-Fighting Procedures** Use an extinguishing agent suitable for the surrounding fire. Do not release runoff from fire to sewers or waterways.

Section 6. Accidental Release Measures

- Spill Clean up** Put on appropriate personal protective equipment (see section 8). Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

- Handling** Put on appropriate personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. Do not breathe vapor or mist. Use with adequate ventilation. Do not ingest. Do not reuse container. Wash thoroughly after handling. Observe label precautions.
- Storage** Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection**Product name**

ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve

Exposure limits

ACGIH TLV (United States). Skin
TWA: 20 ppm 8 hour(s). Form:

OSHA PEL (United States). Skin
TWA: 50 ppm 8 hour(s). Form:

Supplier Suggested (United States).
CEIL: 2 mg/m³ Form:

SODIUM METASILICATE; silicic acid (H₂-Si-O₃) disodium salt; water glass**Personal Protective Equipment (PPE)**

- Eyes** Splash goggles.
- Body** Wear appropriate protective clothing to prevent skin contact. Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves. Synthetic apron.
- 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. **Color** Clear. Dark Blue.
- pH** 12.5 - 13.5 **Odor** Mild.
- Boiling Point** 104.44°C (220°F) **Vapor Pressure** Not determined.
- Specific Gravity** 1.07 **Vapor Density** Not determined.
- Solubility** Easily soluble in the following materials: cold water and hot water. **Evaporation Rate** 1 (Water = 1)
- VOC (Consumer)** 42.3 (g/l). 0.35 lbs/gal (3.96%)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Reactive or incompatible with the following materials: oxidizing materials and acids.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products carbon oxides (CO, CO₂)

Section 11. Toxicological Information**Acute Toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-----------------------|------------|-------------|----------|
| Ethylene Glycol Monobutyl Ether | LD50 Dermal | Guinea pig | >2000 mg/kg | - |
| | LD50 Oral | Guinea pig | 1200 mg/kg | - |
| | LC50 Inhalation Vapor | Guinea pig | >633 ppm | 1 hours |
| Sodium Metasilicate | LD50 Oral | Rat | 1153 mg/kg | - |
| | LD50 Oral | Mouse | 770 mg/kg | - |
| Sodium Dodecylbenzene Sulfonate | LD50 Oral | Mouse | 2000 mg/kg | - |
| | LD50 Oral | Rat | 1260 mg/kg | - |
| Tetrasodium Ethylenediamine Tetraacetate | LD50 Oral | Rat | 4100 mg/kg | - |

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: D002
 Classification: - [Hazardous waste]
 Origin: - [RCRA waste.]

Section 14. Transport Information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label |
|------------------------|----------------|--|---------|-----|-------|
| DOT Classification | Not regulated. | Not a DOT controlled material (United States). | | | |

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

Ethylene Glycol Monobutyl Ether

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

Clean Water Act (CWA) 311: Sodium Dodecylbenzene Sulfonate

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 No products were found.

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.*

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