

# Material Safety Data Sheet



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** ZEP 2000  
**Product use** Aerosol Penetrating Grease  
**Product code** 4164  
**Date of issue** 07/18/08 **Supersedes** 12/30/04

### 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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#### Prepared By

Compliance Services  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

## 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 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

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

#### Skin

Direct contact may cause irritation and redness. Product may be dermal absorbed. Skin inflammation is characterized by itching, scaling, or reddening. 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 may dry skin and cause irritation. 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: kidneys, 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         | 20 - 30 |
| BLEND OF ISOBUTANE & PROPANE                                             | 74-98-6; 75-28-5 | 20 - 30 |
| HYDROTREATED LIGHT PETROLEUM DISTILLATES; paraffinic, naphthenic solvent | 64742-47-8       | 1 - 10  |

**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> | Wash affected area with soap or mild detergent and water. Remove contaminated clothing and shoes. 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)<br>(Tagliabue.)                                                                                                                                                                                                                                                                                                                                             |
| <b>Flammable Limits</b>         | Not available.                                                                                                                                                                                                                                                                                                                                                                        |
| <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 an extinguishing agent suitable for the surrounding fire. Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Cool closed containers exposed to fire with water.                                                                                                                                                         |

**Section 6. Accidental Release Measures**

|                       |                                             |
|-----------------------|---------------------------------------------|
| <b>Spill Clean up</b> | Large spills are unlikely due to packaging. |
|-----------------------|---------------------------------------------|

**Section 7. Handling and Storage**

|                 |                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | 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**

HEPTANE; n-heptane

**Exposure limits****ACGIH/OSHA (United States).**

TWA: 400 ppm 8 hour(s).

**ACGIH/OSHA (United States).**

STEL: 400 ppm 15 minute(s).

**ACGIH TLV (United States).**

TWA: 800 ppm 8 hour(s).

**OSHA PEL (United States).**

TWA: 1000 ppm 8 hour(s).

**Supplier Suggested (United States).**

TWA: 100 ppm 8 hour(s).

BLEND OF ISOBUTANE &amp; PROPANE

HYDROTREATED LIGHT PETROLEUM DISTILLATES;  
paraffinic, naphthenic solvent**Personal Protective Equipment (PPE)**

|                    |                                                                                                                                                                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eyes</b>        | Safety glasses.                                                                                                                                                                                                                                         |
| <b>Body</b>        | Wear appropriate protective clothing to prevent skin contact.<br>Recommended: Viton gloves. Nitrile gloves. Neoprene gloves.                                                                                                                            |
| <b>Respiratory</b> | 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. Amber. [Light]           |
| <b>pH</b>               | Not applicable                                                  | <b>Odor</b>             | Solvent.                        |
| <b>Boiling Point</b>    | Not determined.                                                 | <b>Vapor Pressure</b>   | Not determined.                 |
| <b>Specific Gravity</b> | 0.75                                                            | <b>Vapor Density</b>    | >1 [Air = 1]                    |
| <b>Solubility</b>       | Insoluble in the following materials: cold water and hot water. | <b>Evaporation Rate</b> | >1 (Butyl acetate. = 1)         |
|                         |                                                                 | <b>VOC (Consumer)</b>   | 374 (g/l). 3.12 lbs/gal (50.0%) |

**Section 10. Stability and Reactivity**

|                                         |                                                                            |
|-----------------------------------------|----------------------------------------------------------------------------|
| <b>Stability and Reactivity</b>         | The product is stable.                                                     |
| <b>Incompatibility</b>                  | Avoid contact with strong oxidizers, excessive heat, sparks or open flame. |
| <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 |
|------------------------------------------|----------------------|---------|-------------|----------|
| Heptane                                  | LD50 Oral            | Mouse   | 15000 mg/kg | -        |
|                                          | LC50 Inhalation Gas. | Mouse   | 18295 ppm   | 2 hours  |
| Hydrotreated Light Petroleum Distillates | LD50 Dermal          | Rabbit  | >2000 mg/kg | -        |
|                                          | LD50 Oral            | Rat     | >5000 mg/kg | -        |

**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> | None.           | Consumer commodity   | ORM-D   | -   |       |
| <b>IMDG Class</b>         | 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:  
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.