

## ZEP 40 (AEROSOL)

Version 2.3

Revision Date 02/14/2018

Print Date 12/17/2018

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP 40 (AEROSOL)  
 Material number : 00000000000014401

#### Manufacturer or supplier's details

Company : Zep Inc.  
 Address : 350 Joe Frank Harris Parkway, SE  
 Emerson, GA 30137  
 Telephone : 404-352-1680

#### Emergency telephone numbers

|                                       |  |
|---------------------------------------|--|
| <b>For SDS Information</b>            | : Compliance Services 1-877-428-9937   |
| <b>For a Medical Emergency</b>        | : 877-541-2016 Toll Free - All Calls Recorded  |
| <b>For a Transportation Emergency</b> | : CHEMTREC: 800-424-9300 - All Calls Recorded.<br>In the District of Columbia 202-483-7616 |

#### Recommended use of the chemical and restrictions on use

Recommended use : Glass Cleaner

### SECTION 2. HAZARDS IDENTIFICATION


#### Emergency Overview

|            |                                    |
|------------|------------------------------------|
| Appearance | Aerosol containing a liquefied gas |
| Colour     | colourless, clear                  |
| Odour      | alcohol-like, slight               |

#### GHS Classification

Gases under pressure : Liquefied gas  
 Eye irritation : Category 2A

#### GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H280 Contains gas under pressure; may explode if heated.  
 H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
 P264 Wash skin thoroughly after handling.  
 P280 Wear eye protection/ face protection.  
**Response:**  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

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easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

**Storage:**

P403 Store in a well-ventilated place.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components**

| Chemical name   | CAS-No.  | Concentration [%] |
|-----------------|----------|-------------------|
| ethanol         | 64-17-5  | >= 10 - < 20      |
| butane          | 106-97-8 | >= 1 - < 5        |
| 2-butoxyethanol | 111-76-2 | >= 1 - < 5        |
| propane         | 74-98-6  | >= 1 - < 5        |

The exact percentages of disclosed substances are withheld as trade secrets.

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.  
If skin irritation persists, call a physician.
- In case of eye contact : Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.  
If in eyes, rinse with water for 15 minutes.
- If swallowed : Keep respiratory tract clear.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
- Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.  
Symptoms may include irritation, redness, pain, and rash.  
Causes serious eye irritation.  
Review section 2 of SDS to see all potential hazards.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray jet  
Carbon dioxide (CO<sub>2</sub>)  
Alcohol-resistant foam  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide  
Smoke
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Refer to protective measures listed in sections 7 and 8.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Sweep up or vacuum up spillage and collect in suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the

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application area.

Always replace cap after use.

Dispose of rinse water in accordance with local and national regulations.

Avoid exposure - obtain special instructions before use.

Take precautionary measures against static discharges.

Do not breathe vapours or spray mist.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.  
Observe label precautions.  
Keep in a dry, cool and well-ventilated place.  
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Do not freeze.  
Strong oxidizing agents

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with workplace control parameters**

| Components      | CAS-No.  | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis     |
|-----------------|----------|----------------------------------|---|-----------|
| ethanol         | 64-17-5  | TWA                              | 1,000 ppm   | ACGIH     |
|                 |          | TWA                              | 1,000 ppm<br>1,900 mg/m <sup>3</sup>              | NIOSH REL |
|                 |          | TWA                              | 1,000 ppm<br>1,900 mg/m <sup>3</sup>              | OSHA Z-1  |
|                 |          | TWA                              | 1,000 ppm<br>1,900 mg/m <sup>3</sup>              | OSHA P0   |
|                 |          | STEL                             | 1,000 ppm   | ACGIH     |
|                 |          | PEL                              | 1,000 ppm<br>1,900 mg/m <sup>3</sup>              | CAL PEL   |
| butane          | 106-97-8 | TWA                              | 800 ppm<br>1,900 mg/m <sup>3</sup>                | NIOSH REL |
|                 |          | TWA                              | 800 ppm<br>1,900 mg/m <sup>3</sup>                | OSHA P0   |
|                 |          | PEL                              | 800 ppm<br>1,900 mg/m <sup>3</sup>                | CAL PEL   |
| 2-butoxyethanol | 111-76-2 | TWA                              | 20 ppm  | ACGIH     |
|                 |          | TWA                              | 5 ppm<br>24 mg/m <sup>3</sup>                     | NIOSH REL |
|                 |          | TWA                              | 50 ppm<br>240 mg/m <sup>3</sup>                   | OSHA Z-1  |
|                 |          | TWA                              | 25 ppm<br>120 mg/m <sup>3</sup>                   | OSHA P0   |
|                 |          | PEL                              | 20 ppm<br>97 mg/m <sup>3</sup>                    | CAL PEL   |
| propane         | 74-98-6  | TWA                              | 1,000 ppm   | ACGIH     |
|                 |          | TWA                              | 1,000 ppm   | NIOSH REL |

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|  |  |     |                                      |          |
|--|--|-----|--------------------------------------|----------|
|  |  |     | 1,800 mg/m <sup>3</sup>              |          |
|  |  | TWA | 1,000 ppm<br>1,800 mg/m <sup>3</sup> | OSHA Z-1 |
|  |  | TWA | 1,000 ppm<br>1,800 mg/m <sup>3</sup> | OSHA P0  |
|  |  | PEL | 1,000 ppm<br>1,800 mg/m <sup>3</sup> | CAL PEL  |

**Biological occupational exposure limits**

| Component       | CAS-No.  | Control parameters      | Biological specimen | Sampling time  | Permissible concentration | Basis     |
|-----------------|----------|-------------------------|---------------------|--|---------------------------|-----------|
| 2-BUTOXYETHANOL | 111-76-2 | Butoxyacetic acid (BAA) | Urine               | End of shift (As soon as possible after exposure ceases) | 200.mg/g Creatinine       | ACGIH BEI |

**Engineering measures** : effective ventilation in all processing areas

**Personal protective equipment**

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material

Remarks

: Protective gloves

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Tightly fitting safety goggles

Skin and body protection

: Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Aerosol containing a liquefied gas

Colour : colourless, clear

Odour : alcohol-like, slight

Odour Threshold : No data available

pH : 10.5 - 11.5

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|  |                                 |
|--|---------------------------------|
| Melting point/freezing point           | : Not applicable                |
| Boiling point                          | : Not applicable                |
| Flash point                            | :<br>Not applicable             |
| Evaporation rate                       | : 1<br>n-Butyl Acetate = 1.0    |
| Flammability (solid, gas)              | : The product is not flammable. |
| Upper explosion limit                  | : Not applicable                |
| Lower explosion limit                  | : Not applicable                |
| Vapour pressure                        | : No data available             |
| Relative vapour density                | : No data available             |
| Density                                | : 1.1 g/cm <sup>3</sup>         |
| Solubility(ies)                        |                                 |
| Water solubility                       | : soluble                       |
| Solubility in other solvents           | : not determined                |
| Partition coefficient: n-octanol/water | : No data available             |
| Auto-ignition temperature              | : not determined                |
| Thermal decomposition                  | : No data available             |
| Viscosity                              |                                 |
| Viscosity, kinematic                   | : Not applicable                |
| Heat of combustion                     | : 7.94 kJ/g                     |

**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |
|------------------------------------|---|
| Reactivity                         | : Stable  |
| Chemical stability                 | : Stable under normal conditions.   |
| Possibility of hazardous reactions | : Vapours may form explosive mixture with air.<br>No decomposition if stored and applied as directed. |
| Conditions to avoid                | : Heat, flames and sparks.<br>Extremes of temperature and direct sunlight.                            |
| Incompatible materials             | : Strong oxidizing agents   |
| Hazardous decomposition products   | : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).                                  |

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**SECTION 11. TOXICOLOGICAL INFORMATION****Potential Health Effects**

Aggravated Medical Condition : None known.  
 Symptoms of Overexposure : Effects are immediate and delayed.  
 Symptoms may include irritation, redness, pain, and rash.

**Carcinogenicity:**

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH** Confirmed animal carcinogen with unknown relevance to humans  
 ethanol 64-17-5  
 2-butoxyethanol 111-76-2

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
 Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 60 mg/l  
 Exposure time: 4 h  
 Test atmosphere: dust/mist  
 Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg  
 Method: Calculation method

**Components:****ethanol:**

Acute oral toxicity : LD50 Oral Rat: 7,060 mg/kg

Acute inhalation toxicity : LC50 Rat: 124.7 mg/l  
 Exposure time: 4 h  
 Test atmosphere: vapour

**2-butoxyethanol:**

Acute oral toxicity : LD50 Oral Rat: 880 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: 1,060 mg/kg

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**Skin corrosion/irritation**

**Product:**

Remarks: May cause skin irritation and/or dermatitis.

**Serious eye damage/eye irritation**

**Product:**

Remarks: Severe eye irritation

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

**Aspiration toxicity**

No data available

**Further information**

**Product:**

Remarks: No data available

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

**Product:**

Partition coefficient: n- : Remarks: No data available



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octanol/water

**Components:****ethanol :**
 Partition coefficient: n- : Remarks: No data available  
 octanol/water
**butane :**
 Partition coefficient: n- : Pow: 2.89  
 octanol/water
**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation

 40 CFR Protection of Environment; Part 82 Protection of  
 Stratospheric Ozone - CAA Section 602 Class I  
 Substances

Remarks

 This product neither contains, nor was manufactured  
 with a Class I or Class II ODS as defined by the U.S.  
 Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A  
 + B).

 Additional ecological  
 information

 : An environmental hazard cannot be excluded in the  
 event of unprofessional handling or disposal., Harmful to  
 aquatic life.

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**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

Waste from residues

 : Do not dispose of waste into sewer.  
 Do not contaminate ponds, waterways or ditches with  
 chemical or used container.  
 Dispose of in accordance with local regulations.

Contaminated packaging

 : Empty remaining contents.  
 Dispose of as unused product.  
 Do not re-use empty containers.  
 Do not burn, or use a cutting torch on, the empty drum.

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**SECTION 14. TRANSPORT INFORMATION**

 Transportation Regulation: 49 CFR (USA):  
 ORM-D, CONSUMER COMMODITY

 Transportation Regulation: IMDG (Vessel):  
 UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

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Transportation Regulation: IATA (Cargo Air):  
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):  
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):  
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

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**SECTION 15. REGULATORY INFORMATION**

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**EPCRA - Emergency Planning and Community Right-to-Know Act**
**CERCLA Reportable Quantity**

| Components                | CAS-No.   | Component RQ (lbs) | Calculated product RQ (lbs) |
|---------------------------|-----------|--------------------|-----------------------------|
| ammonia, aqueous solution | 1336-21-6 | 1000               | *                           |

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Gases under pressure  
Serious eye damage or eye irritation

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

|                 |          |       |
|-----------------|----------|-------|
| 2-butoxyethanol | 111-76-2 | 2.5 % |
|-----------------|----------|-------|

**California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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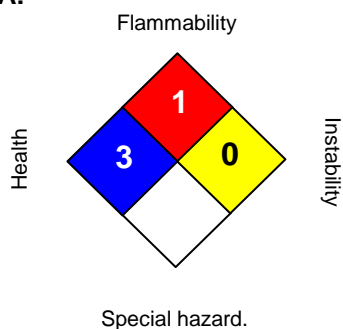
The components of this product are reported in the following inventories:

**DSL** All components of this product are on the Canadian DSL  
**TSCA** On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

**Inventory Acronym and Validity Area Legend:**

TSCA (USA), DSL (Canada), NDSL (Canada)

**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>2</b> |
| <b>FLAMMABILITY</b>    | <b>1</b> |
| <b>PHYSICAL HAZARD</b> | <b>3</b> |

0 = not significant, 1 = Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

**OSHA - GHS Label Information:**

Hazard pictograms :



Signal word :

: **Warning:**

Hazard statements :

: Contains gas under pressure; may explode if heated. Causes serious eye irritation.

Precautionary statements :

: **Prevention:** Wash skin thoroughly after handling. Wear eye protection/ face protection.

**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

**Storage:** Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.