

# SAFETY DATA SHEET

## ZEP HI PH 2401 VEHICLE WASH

Version 4.0

Revision Date 05/01/2020

Print Date 06/06/2020

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP HI PH 2401 VEHICLE WASH

Material number : J54985

#### 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

**For SDS Information** : Compliance Services 1-877-428-9937

**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded

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

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

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

|            |              |
|------------|--------------|
| Appearance | liquid       |
| Colour     | amber, clear |
| Odour      | mild         |

#### GHS Classification

Skin corrosion : Category 1

Serious eye damage : Category 1

Specific target organ toxicity -  
repeated exposure  
(Inhalation) : Category 2

#### GHS label elements

Hazard pictograms :



Health hazard

Corrosion

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.  
H373 May cause damage to organs through prolonged or  
repeated exposure if inhaled.

Precautionary statements : **Prevention:**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.

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P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P314 Get medical advice/ attention if you feel unwell.

P363 Wash contaminated clothing before reuse.

**Disposal:**

P501 Dispose of contents/container in accordance with local regulation.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

| Chemical name                           | CAS-No.    | Concentration [%] |
|---|------------|-------------------|
| sodium xylenesulphonate                 | 1300-72-7  | >= 5 - < 10       |
| 2-aminoethanol                          | 141-43-5   | >= 5 - < 10       |
| tetrasodium ethylenediaminetetraacetate | 64-02-8    | >= 5 - < 10       |
| Alcohols, C9-11, ethoxylated            | 68439-46-3 | >= 5 - < 10       |
| sodium hydroxide                        | 1310-73-2  | >= 5 - < 10       |
| sodium dodecylbenzenesulfonate          | 25155-30-0 | >= 1 - < 5        |

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

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### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Get medical attention immediately.  
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 : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.  
Wash off immediately with plenty of water for at least 15 minutes.

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- Remove contaminated clothing and shoes.  
Wash contaminated clothing before reuse.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.  
Symptoms may include blistering, irritation, burns, and pain.  
Symptoms may differ depending on organs and systems affected. These effects generally are reflected in reduced function or change, which may include cramping, swelling, respiratory issues, and general pain.  
Effects are dependent on exposure (dose, concentration, contact time).  
Causes severe skin burns and eye damage.  
May cause damage to organs through prolonged or repeated exposure if inhaled.  
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 : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water spray jet  
Alcohol-resistant foam
- 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  
Sulphur oxides  
Smoke  
Nitrogen oxides (NO<sub>x</sub>)
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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- 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.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Evacuate personnel to safe areas.  
Ensure adequate ventilation.
- 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).  
Keep in suitable, closed containers for disposal.

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### 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 application area.  
Dispose of rinse water in accordance with local and national regulations.  
Do not breathe vapours or spray mist.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.  
No smoking.  
This product is formulated for use on hard metal surfaces.  
This product does contain a reducing agent(s) that may corrode soft metals. This product should be stored in its original packaging or containers of similar construction, and not in metal vessels.
- Materials to avoid : Do not store near acids.  
Oxidizing agents

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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

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| Components     | CAS-No.             | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis     |
|----------------|---------------------|----------------------------------|---|-----------|
| 2-aminoethanol | 141-43-5            | TWA                              | 3 ppm   | ACGIH     |
|                |                     | STEL                             | 6 ppm   | ACGIH     |
|                |                     | TWA                              | 3 ppm<br>8 mg/m <sup>3</sup>                      | NIOSH REL |
|                |                     | ST                               | 6 ppm<br>15 mg/m <sup>3</sup>                     | NIOSH REL |
|                |                     | TWA                              | 3 ppm<br>6 mg/m <sup>3</sup>                      | OSHA Z-1  |
|                |                     | STEL                             | 6 ppm<br>15 mg/m <sup>3</sup>                     | OSHA P0   |
|                |                     | TWA                              | 3 ppm<br>8 mg/m <sup>3</sup>                      | OSHA P0   |
|                |                     | PEL                              | 3 ppm<br>8 mg/m <sup>3</sup>                      | CAL PEL   |
|                |                     | STEL                             | 6 ppm<br>15 mg/m <sup>3</sup>                     | CAL PEL   |
|                |                     | sodium hydroxide                 | 1310-73-2   | C         |
| C              | 2 mg/m <sup>3</sup> |                                  |   | NIOSH REL |
| TWA            | 2 mg/m <sup>3</sup> |                                  |   | OSHA Z-1  |
| C              | 2 mg/m <sup>3</sup> |                                  |   | OSHA P0   |
| C              | 2 mg/m <sup>3</sup> |                                  |   | CAL PEL   |

**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 : Protective gloves

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

#### Eye protection

: Ensure that eyewash stations and safety showers are close to the workstation location.  
Tightly fitting safety goggles  
Face-shield

#### 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.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |                                     |
|--|-------------------------------------|
| Appearance                             | : liquid                            |
| Colour                                 | : amber, clear                      |
| Odour                                  | : mild                              |
| Odour Threshold                        | : No data available                 |
| pH                                     | : 13 - 14                           |
| Melting point/freezing point           | : No data available                 |
| Boiling point                          | : 104.44 °C                         |
| Flash point                            | : > 93.3 °C<br>Method: closed cup   |
| Evaporation rate                       | : 1                                 |
| Upper explosion limit                  | : No data available                 |
| Lower explosion limit                  | : No data available                 |
| Vapour pressure                        | : No data available                 |
| Relative vapour density                | : No data available                 |
| Density                                | : 1.16 g/cm <sup>3</sup>            |
| Bulk density                           | : No data available                 |
| 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, dynamic                     | : No data available                 |
| Viscosity, kinematic                   | : 13.1 mm <sup>2</sup> /s (20.0 °C) |

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### SECTION 10. STABILITY AND REACTIVITY

|                          |   |
|--------------------------|---|
| Reactivity               | : Stable  |
| Chemical stability       | : Stable under normal conditions.                     |
| Possibility of hazardous | : No decomposition if stored and applied as directed. |

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|                                  |  |
|----------------------------------|--|
| reactions                        |  |
| Conditions to avoid              | : Extremes of temperature and direct sunlight.   |
| Incompatible materials           | : This product contains sodium hydroxide or potassium hydroxide that may corrode some soft metals and may react with tin, zinc, aluminum to form hydrogen gas. |
|                                  | Acids<br>Oxidizing agents  |
| Hazardous decomposition products | : Carbon monoxide<br>Carbon oxides<br>Sulphur compounds<br>Nitrogen oxides (NOx)   |

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Potential Health Effects

|                              |  |
|------------------------------|--|
| Aggravated Medical Condition | : None known.  |
| Symptoms of Overexposure     | : Effects are immediate and delayed.<br>Symptoms may include blistering, irritation, burns, and pain. Symptoms may differ depending on organs and systems affected. These effects generally are reflected in reduced function or change, which may include cramping, swelling, respiratory issues, and general pain. Effects are dependent on exposure (dose, concentration, contact time).<br>Causes severe skin burns and eye damage.<br>May cause damage to organs through prolonged or repeated exposure if inhaled.<br>Review section 2 of SDS to see all potential hazards.<br>Treat symptomatically. Symptoms may be delayed. |

#### 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  |
| OSHA  | 2-butoxyethanol 111-76-2<br>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:

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Acute oral toxicity : Acute toxicity estimate : 3,261 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 146.98 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

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

### **Components:**

#### **2-aminoethanol:**

Acute oral toxicity : LD50 Oral Mouse: 700 mg/kg  
LD50 Oral Rat: 1,515 mg/kg

Acute inhalation toxicity : LC50 Mouse: > 1.21 mg/l

#### **Alcohols, C9-11, ethoxylated:**

Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

#### **sodium hydroxide:**

Acute dermal toxicity : Acute toxicity estimate Rabbit: 1,350 mg/kg

#### **sodium dodecylbenzenesulfonate:**

Acute oral toxicity : LD50 Oral Rat: 438 mg/kg

### **Skin corrosion/irritation**

#### **Product:**

Remarks: Extremely corrosive and destructive to tissue.

### **Serious eye damage/eye irritation**

#### **Product:**

Remarks: May cause irreversible eye damage.

### **Respiratory or skin sensitisation**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

#### **Product:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

### **Reproductive toxicity**



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No data available

### STOT - single exposure

No data available

### STOT - repeated exposure

#### Components:

#### **tetrasodium ethylenediaminetetraacetate:**

Exposure routes: Inhalation

Assessment: May cause damage to organs through prolonged or repeated exposure.

### Aspiration toxicity

No data available

### Further information

#### Product:

Remarks: No data available

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

#### **sodium hydroxide :**

Toxicity to fish : LC50 (*Gambusia affinis* (Mosquito fish)): 125 mg/l  
Exposure time: 96 h  
Test Method: static test

LC50 (*Oncorhynchus tshawytscha* (chinook salmon)):  
152 mg/l  
Exposure time: 96 h

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 40 mg/l  
Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 34 - 47 mg/l  
Exposure time: 48 h

EC50 (*Crangon crangon* (shrimp)): 33 - 100 mg/l  
Exposure time: 48 h

### Persistence and degradability

No data available

### Bioaccumulative potential

#### Product:

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Partition coefficient: n-octanol/water : Remarks: No data available

**Components:**

**2-aminoethanol :**

Partition coefficient: n-octanol/water : log Pow: -1.31

**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 : Not applicable

**Components:**

**sodium hydroxide :**

Additional ecological information : 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.

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### SECTION 14. TRANSPORT INFORMATION

|   |
|---|
| Transportation Regulation: 49 CFR (USA):<br>UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II |
|---|

|  |
|--|
| Transportation Regulation: IMDG (Vessel):<br>UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II |
|--|

|  |
|--|
| Transportation Regulation: IATA (Cargo Air): |
|--|

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UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IATA (Passenger Air):

UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: TDG (Canada):

UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II

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.

### 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) |
|------------------|-----------|--------------------|-----------------------------|
| sodium hydroxide | 1310-73-2 | 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** : Skin corrosion or irritation  
Serious eye damage or eye irritation  
Specific target organ toxicity (single or repeated exposure)

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

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### California Prop. 65



WARNING: This product can expose you to chemicals including 2,2'-iminodiethanol, ethylbenzene, which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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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)

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### SECTION 16. OTHER INFORMATION

Further information

NFPA:

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>3</b> |
| <b>FLAMMABILITY</b>    | <b>1</b> |
| <b>INSTABILITY</b>     | <b>0</b> |
| <b>SPECIAL HAZARD.</b> |          |

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

HMIS III:

|                        |           |
|------------------------|-----------|
| <b>HEALTH</b>          | <b>3*</b> |
| <b>FLAMMABILITY</b>    | <b>1</b>  |
| <b>PHYSICAL HAZARD</b> | <b>0</b>  |

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

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**OSHA - GHS Label Information:**

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Hazard pictograms :



Health hazard

Corrosion

Signal word :

**Danger:**

Hazard statements :

Causes severe skin burns and eye damage. May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements :

**Prevention:** Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Get medical advice/ attention if you feel unwell. Wash contaminated clothing before reuse.

**Disposal:** Dispose of contents/container in accordance with local regulation.

|                |            |
|----------------|------------|
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