SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name: BZ7348 AP ACID BATH CLNR R00001 12Q/CS
Material number: 000000000001041399

Manufacturer or supplier's details
Company: Zep Inc.
Address: 1310 Seaboard Industrial Blvd., NW
          Atlanta, GA 30318
Telephone: 404-352-1680

Emergency telephone numbers

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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

| Appearance | liquid |
| Colour | green |
| Odour | characteristic |

GHS Classification

| Acute toxicity (Oral) | Category 4 |
| Skin corrosion | Category 1A |
| Serious eye damage | Category 1 |

GHS Label element

Hazard pictograms: 

| Signal word | Danger |
| Hazard statements | H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. |
| Precautionary statements | Prevention: P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. |
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
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 or doctor/ physician.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

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

Potential Health Effects

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
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>orthophosphoric acid</td>
<td>7664-38-2</td>
<td>&gt;= 20 - &lt; 30</td>
</tr>
<tr>
<td>urea</td>
<td>57-13-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>hydrogen chloride</td>
<td>7647-01-0</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Alcohols, C10-14, ethoxylated</td>
<td>66455-15-0</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area. Consult a physician.
SAFETY DATA SHEET

BZ7348 AP ACID BATH CLNR R00001 12Q/CS

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. Move to fresh air.

In case of skin contact: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. 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. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: 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 (CO2) Carbon monoxide Smoke Phosphorus compounds Nitrogen oxides (NOx) Chlorine compounds Sulphur oxides

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.

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.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Do not breathe vapours/dust.

Avoid contact with skin and eyes.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the application area.

To avoid spills during handling keep bottle on a metal tray.

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

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.

Materials to avoid: Store and keep away from bases and alkalies.

Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>orthophosphoric acid</td>
<td>7664-38-2</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>3 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>3 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

BZ7348 AP ACID BATH CLNR R00001 12Q/CS

Version 1.0
Revision Date 01/09/2015
Print Date 06/03/2015

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>OSHA P0</th>
</tr>
</thead>
<tbody>
<tr>
<td>urea</td>
<td>1 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STEL 3 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>hydrogen chloride</td>
<td>C 2 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>C 5 ppm 7 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>C 5 ppm 7 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>C 5 ppm 7 mg/m³</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

**Personal protective equipment**

Respiratory protection: No personal respiratory protective equipment normally required.

Hand protection

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

Eye protection: Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing problems.

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: liquid

Colour: green

Odour: characteristic

Odour Threshold: no data available

pH: < 1

Melting point/freezing point: no data available

Boiling point: 100 °C

Flash point: no data available

Evaporation rate: no data available

Upper explosion limit: no data available

Lower explosion limit: no data available
Vapour pressure : no data available
Relative vapour density : no data available
Density : 1.2 g/cm³
Solubility(ies)
Water solubility : soluble in cold water, soluble in hot water
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 : no data available

SECTION 10. STABILITY AND REACTIVITY
Reactivity : Stable
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Conditions to avoid : no data available
Incompatible materials : Oxidizing agents
Alkali metals
Hazardous decomposition products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION
Acute toxicity
Product:
Acute oral toxicity : Acute toxicity estimate : 1,755 mg/kg
Method: Calculation method

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
no data available

Reproductive toxicity
no data available

orthophosphoric acid:
urea:
hydrogen chloride:
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts:
Alcohols, C10-14, ethoxylated:

STOT - single exposure
no data available

STOT - repeated exposure
no data available

Aspiration toxicity
no data available

Further information
Product:
Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
Product:
Partition coefficient: n-octanol/water: Remarks: no data available

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: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

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

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International regulation

IATA-DGR
UN/ID No. : 3264
Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (HYDROGEN CHLORIDE, PHOSPHORIC ACID)

Class: 8
Packing group: II
Labels: 8
Packing instruction (cargo aircraft): 855
Packing instruction (passenger aircraft): 851

IMDG-Code
UN number: 3264
Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROGEN CHLORIDE, PHOSPHORIC ACID)
SAFETY DATA SHEET

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Class: 8
Packing group: II
Labels: 8
EmS Code: F-A, S-B
Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations
49 CFR
UN/ID/NA number: 3264
Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s.
(HYDROGEN CHLORIDE, PHOSPHORIC ACID)
Class: 8
Packing group: II
Labels: 8
ERG Code: 154
Marine pollutant: no

Special precautions for user
not applicable

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>orthophosphoric acid</td>
<td>7664-38-2</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: 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: Acute Health Hazard

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

SARA 313: 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

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

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

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>On TSCA Inventory</td>
</tr>
<tr>
<td>DSL</td>
<td>All components of this product are on the Canadian DSL.</td>
</tr>
<tr>
<td>AICS</td>
<td>Not in compliance with the inventory</td>
</tr>
<tr>
<td>NZIoC</td>
<td>Not in compliance with the inventory</td>
</tr>
<tr>
<td>PICCS</td>
<td>Not in compliance with the inventory</td>
</tr>
<tr>
<td>IECS</td>
<td>Not in compliance with the inventory</td>
</tr>
</tbody>
</table>

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA: Hammarby, Instability

Hazard pictograms:

**Signal word:** Danger

**Hazard statements:** Harmful if swallowed. Causes severe skin burns and eye damage.

**Precautionary statements:**

**Prevention:** Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. 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 or doctor/physician. Wash contaminated clothing before reuse.

Storage: Store locked up.

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

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes.

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