SAFETY DATA SHEET

BZ7588 ZC HD CITR DG ZUCIT24 12/24OZ OBS

Version 2.0 Revision Date 12/11/2017 Print Date 01/18/2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : BZ7588 ZC HD CITR DG ZUCIT24 12/24OZ OBS
Material number : 000000000001047496

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

<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. In the District of Columbia 202-483-7616</td>
</tr>
</tbody>
</table>

Recommended use of the chemical and restrictions on use
Recommended use : Cleaner

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>orange</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

GHS Classification
Flammable liquids : Category 4
Serious eye damage : Category 1
Skin sensitisation : Category 1

GHS label elements

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
<td>Danger</td>
</tr>
<tr>
<td>Hazard statements</td>
<td>H227 Combustible liquid. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.</td>
</tr>
</tbody>
</table>
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P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>68439-46-3</td>
<td>&gt;= 3 - &lt; 5</td>
</tr>
<tr>
<td>Citrus, ext.</td>
<td>94266-47-4</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

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

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
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.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse.
If skin irritation persists, call a physician.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
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.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

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.

Most important symptoms and effects, both acute and delayed: Effects are immediate and delayed.
Symptoms may include irritation, redness, pain, and rash.
Effects are dependent on exposure (dose, concentration, contact time).
Causes serious eye damage.
Review section 2 of SDS to see all potential hazards.

Notes to physician: Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam
Carbon dioxide (CO2)
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
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.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES
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Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.
- Remove all sources of ignition.
- Evacuate personnel to safe areas.
- 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:
- Neutralise with acid.
- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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.
- Take precautionary measures against static discharges.
- Provide sufficient air exchange and/or exhaust in work rooms.
- Dispose of rinse water in accordance with local and national regulations.
- Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage:
- No smoking.
- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Observe label precautions.
- Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid:
- Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters:
Contains no substances with occupational exposure limit values.

Engineering measures:
- effective ventilation in all processing areas
Personal protective equipment

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

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

Eye protection: Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles 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: orange
Odour: characteristic
Odour Threshold: No data available
pH: 11 - 12
Melting point/freezing point: No data available
Boiling point: 100 °C
Flash point: 67.7 °C
Method: TCC
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: 1.003 g/cm3
Solubility(ies):
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Section 10. Stability and Reactivity

Reactivity: Stable
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid: Heat, flames and sparks.
Incompatible materials: Strong acids
Hazardous decomposition products: Carbon oxides, sulphur oxides

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. Effects are dependent on exposure (dose, concentration, contact time).

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 on OSHA’s list of regulated carcinogens. 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

**Components:**
- Alcohols, C9-11, ethoxylated:
  - Acute oral toxicity
    - LD50 Oral Rat: 1,400 mg/kg

Skin corrosion/irritation

**Product:**
- Remarks: Irritating to skin.

Serious eye damage/eye irritation

**Product:**
- Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

**Product:**
- Remarks: Causes sensitisation.

  Assessment: Moderate skin irritation

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
**SAFETY DATA SHEET**

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**Product:**

Remarks: Solvents may degrease the skin.

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**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

**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**

The product should not be allowed to enter drains, water courses or the soil.  
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.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (D-LIMONENE), 9, III

Transportation Regulation: IATA (Cargo Air):
UN3082, Environmentally hazardous substance, liquid, n.o.s., (D-LIMONENE), 9, III

Transportation Regulation: IATA (Passenger Air):
UN3082, Environmentally hazardous substance, liquid, n.o.s., (D-LIMONENE), 9, III

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

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

<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>sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Flammable (gases, aerosols, liquids, or solids)
Serious eye damage or eye irritation
Respiratory or skin sensitisation

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

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:

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:

Hazard  Health  3 [Moderate]
Flammability  2
Instability

Special hazard.

HMIS III:

Health  3
Flammability  2
Physical Hazard  0

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

OSHA - GHS Label Information:
Hazard pictograms

Signal word: Danger

Hazard statements:
- Combustible liquid. May cause an allergic skin reaction. Causes serious eye damage.

Precautionary statements:

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/eye protection/face protection.

Response:
- IF ON SKIN: Wash with plenty of soap and water. 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. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage: Store in a well-ventilated place. Keep cool.

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

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