SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP FORMULA 50 R.T.U. 1 CS 12 QTS
Material number : F50001
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
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>clear, green</td>
</tr>
<tr>
<td>Odour</td>
<td>like fruit</td>
</tr>
</tbody>
</table>

GHS Classification
Skin irritation : Category 2
Eye irritation : Category 2A

GHS label elements
Hazard pictograms : ![Warning]

Signal word : Warning
Hazard statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements : Prevention:
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components
No hazardous ingredients
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.
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.
If in eyes, rinse with water for 15 minutes.
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.
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 may be delayed, symptoms may include minor eye or skin irritation.
Overexposure may cause mild eye or skin irritation.

Notes to physician : Treat symptomatically. Symptoms may be delayed.
SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:  
- Dry chemical  
- Water  
- Carbon dioxide (CO2)  
- 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:  
- No hazardous combustion products are known

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: Do not freeze. Do not store near acids. 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>2-butoxyethanol</td>
<td>111-76-2</td>
<td>TWA</td>
<td>20 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 ppm 24 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>50 ppm 240 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>25 ppm 120 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>20 ppm 97 mg/m3</td>
<td>CAL PEL</td>
</tr>
</tbody>
</table>

Engineering measures: Handle only in a place equipped with local exhaust (or other appropriate exhaust).

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: Ensure that eyewash stations and safety showers are close to the workstation location. 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 : clear, green
Odour : like fruit
Odour Threshold : No data available
pH : 11.5 - 12.5
Melting point/freezing point : No data available
Boiling point : 100 °C
Flash point : does not flash
Evaporation rate : 1

Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : not determined
Relative vapour density : No data available
Density : 1.01 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 : 3.4 mm²/s (20 °C)

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: Acids, Oxidizing agents
Hazardous decomposition products: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition: None known.
Symptoms of Overexposure: Effects may be delayed, symptoms may include minor eye or skin irritation.

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
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

Skin corrosion/irritation

Product:
Result: Skin irritation
Classification: Irritating to skin.
Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:
Result: Eye irritation
Classification: Irritating to eyes.
Remarks: Irritating to eyes.

Respiratory or skin sensitisation
SAFETY DATA SHEET

ZEP FORMULA 50 R.T.U. 1 CS 12 QTS

Version 2.2
Revision Date 09/11/2017
Print Date 04/02/2019

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

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.

Additional ecological information: No data available

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.

SECTION 14. TRANSPORT INFORMATION

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

Transportation Regulation: IMDG (Vessel):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Cargo Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

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.

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

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:

- Flammability: 0
- Health: 2
- Reactivity: 0

Special hazard.

HMIS III:

- HEALTH: 2
- FLAMMABILITY: 0
- PHYSICAL HAZARD: 0

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

OSHA - GHS Label Information:

- Hazard pictograms: 
- Signal word: Warning
- Hazard statements: Causes skin irritation. Causes serious eye irritation.
- Precautionary statements:
  - Prevention: Wash skin thoroughly after handling. Wear eye protection/ face protection. Wear protective gloves.
  - 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. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

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