SAFETY DATA SHEET

Zepreserve

Version 1.0    Revision Date 10/27/2014    Print Date 08/05/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Zepreserve
Material number : 00000000000143499

Manufacturer or supplier's details

Company : Zep Inc.
Address : 1310 Seaboard Industrial Blvd., NW
          Atlanta, GA 30318
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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>dark brown, clear</td>
</tr>
<tr>
<td>Odour</td>
<td>neutral</td>
</tr>
</tbody>
</table>

GHS Classification

Flammable liquids : Category 3
Skin irritation : Category 2
Eye irritation : Category 2A
Aspiration hazard : Category 1

GHS Label element

Hazard pictograms : ![Flammable liquid](image1) ![Skin irritation](image2) ![Aspiration hazard](image3)

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
                   H304 May be fatal if swallowed and enters airways.
                   H315 Causes skin irritation.
                   H319 Causes serious eye irritation.

Precautionary statements : Prevention:
                          P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
                          P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
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.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
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>
</table>

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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.
- Symptoms of poisoning may appear several hours later.
- 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**
- If skin irritation persists, call a physician.
- If on skin, rinse well with water.
- If on clothes, remove clothes.

**In case of eye contact**
- Immediately flush eye(s) with plenty of water.
- 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**
- 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

**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.
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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

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Ensure adequate ventilation. 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: 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: Avoid formation of aerosol. 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. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

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: Keep away from oxidising agents and strongly acid or alkaline materials.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Personal protective equipment

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 : dark brown, clear
Odour : neutral
Odour Threshold : no data available
pH : no data available
Melting point/freezing point : no data available
Boiling point : 151.7 °C
Flash point : 43.9 °C
Method: closed cup

Evaporation rate : 0.1

Upper explosion limit : no data available
Lower explosion limit : no data available
Vapour pressure : no data available
Relative vapour density : no data available
Density : 0.826 g/cm³
Solubility(ies)
Water solubility : insoluble
SECTION 10. STABILITY AND REACTIVITY

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

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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

Components:
2-ethylhexan-1-ol: 
Acute oral toxicity: LD50 Oral rat: 3,730 mg/kg

Acute dermal toxicity: LD50 Dermal rabbit: > 3,000 mg/kg

Skin corrosion/irritation

Product: 
Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:
Remarks: Irritating to eyes.

Respiratory or skin sensitisation
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

Distillates (petroleum), hydrotreated light:
2-ethylhexan-1-ol:
2-(2-butoxyethoxy)ethanol:

STOT - single exposure
no data available

STOT - repeated exposure
no data available

Aspiration toxicity
no data available

Further information

Product:
Remarks: Solvents may degrease the skin.

Components:
Distillates (petroleum), hydrotreated light:
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

Components:
2-ethylhexan-1-ol:
Partition coefficient: n-octanol/water 2-(2-butoxyethoxy)ethanol : Pow: 2.9
Partition coefficient: n-octanol/water : Pow: 1

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., Toxic to aquatic life with long lasting effects.

Components:
Distillates (petroleum), hydrotreated light :

Additional ecological information: no data available

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

International regulation
IATA-DGR UN/ID No. : 1993
Proper shipping name: Flammable liquid, n.o.s. (PETROLEUM DISTILLATES)

Class: 3
Packing group: III
Labels: 3
Packing instruction (cargo aircraft): 366
Packing instruction (passenger aircraft): 355

IMDG-Code
UN number: 1993
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (PETROLEUM DISTILLATES)
Class: 3
Packing group: III
Labels: 3
EmS Code: F-E, S-E
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: 1993
Proper shipping name: Flammable liquids, n.o.s. (PETROLEUM DISTILLATES)
Class: 3
Packing group: III
Labels: 3
ERG Code: 128
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
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.
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SARA 311/312 Hazards     : Fire Hazard
                          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:

TSCA                     On TSCA Inventory
DSL                      All components of this product are on the Canadian DSL.
AICS                     On the inventory, or in compliance with the inventory
NZIoC                    On the inventory, or in compliance with the inventory
PICCS                    On the inventory, or in compliance with the inventory
IECSC                    On the inventory, or in compliance with the inventory

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: Flammability

HMIS III:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>3</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>2</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
</tr>
</tbody>
</table>

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

OSHA GHS Label Information:
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Hazard pictograms:

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Hazard statements: Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation.
Precautionary statements:

Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin w ith water/ shower. IF IN EYES: Rinse cautiously w ith water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage: Store in a well-ventilated place. Keep cool. Store locked up.
Disposal: Dispose of contents/container in accordance with local regulation.

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