SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name: Zepopine
EPA ID Number: 6836-168-1270
Material number: 00000000000183424

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>amber, clear</td>
</tr>
<tr>
<td>Odour</td>
<td>strong, characteristic</td>
</tr>
</tbody>
</table>

GHS Classification

Flammable liquids: Category 3
Skin irritation: Category 2
Serious eye damage: Category 1

GHS label elements
Hazard pictograms:

Signal word: Danger
Hazard statements:
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.

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:**
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
P332 + P313 If skin irritation occurs: 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.

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

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Mixture</th>
</tr>
</thead>
</table>

**Hazardous components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Pine oil</td>
<td>8002-09-3</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>4-Nonylphenol branched, ethoxylated</td>
<td>127087-87-0</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>68424-85-1</td>
<td>&gt;= 3 - &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.
Move to fresh air.
In case of skin contact: If skin irritation persists, call a physician. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Wash off immediately with plenty of water for at least 15 minutes.

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. Immediately flush eyes for at least 15 minutes. Get medical attention.

If swallowed: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed: Effects are immediate and delayed. Effects are dependent on exposure (dose, concentration, contact time). Symptoms may include blistering, irritation, burns, and pain. Causes skin irritation. 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 Water spray

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 Nitrogen oxides (NOx)

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

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: 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 contact with skin and eyes. For personal protection see section 8. Do not breathe vapours or spray mist. 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. 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: 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: 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>propan-2-ol</td>
<td>67-63-0</td>
<td>TWA 200 ppm</td>
<td>400 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 980 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>500 ppm 1,225 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 980 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 980 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>500 ppm 1,225 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>400 ppm 980 mg/m3</td>
<td>CAL PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>500 ppm 1,225 mg/m3</td>
<td>CAL PEL</td>
</tr>
</tbody>
</table>

Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPAN-2-OL</td>
<td>67-63-0</td>
<td>Acetone</td>
<td>Urine</td>
<td>End of shift at end of workweek</td>
<td>40 mg/l</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

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: Chemical resistant goggles must be worn. Ensure that eyewash stations and safety showers are close to the workstation location.

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: amber, clear
Odour: strong, characteristic
Odour Threshold: No data available
pH: 6.0 - 7.0
Melting point/freezing point: Not applicable
Boiling point: No data available
Flash point: 36.1 °C
   Method: closed cup
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: 0.981 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: 15.7 mm2/s (20 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable
## SECTION 11. TOXICOLOGICAL INFORMATION

### Potential Health Effects

**Aggravated Medical Condition**
- None known.

**Symptoms of Overexposure**
- Effects are immediate and delayed.
- Effects are dependent on exposure (dose, concentration, contact time).
- Symptoms may include blistering, irritation, burns, and pain.

### 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**
- 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

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

**Components:**

**propan-2-ol:**
SAFETY DATA SHEET

ZEPOPINE 4-1GL

Version 3.0  Revision Date 05/02/2018  Print Date 04/02/2019

Acute oral toxicity: LD50 Oral Rat: 4,396 mg/kg
Method: Calculation method

4-Nonylphenol branched, ethoxylated:
Acute oral toxicity: LD50 Oral Rat: 16,000 mg/kg

Acute dermal toxicity: LD50 Rabbit: 2,573 mg/kg

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:
Acute oral toxicity: LD50 Rat: 305 mg/kg
Method: Third Party Data - Actual or Inferred

Acute inhalation toxicity: LC50 Rat: 0.054 - 0.51 mg/l
Test atmosphere: dust/mist
Method: Third Party Data - Actual or Inferred

Acute dermal toxicity: LD50 Rat: 930 mg/kg
Method: Third Party Data - Actual or Inferred

Skin corrosion/irritation

Product:
Remarks: Irritating to skin.

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

STOT - single exposure
No data available

STOT - repeated exposure
No data available

Aspiration toxicity
No data available

Further information
### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
- No data available

**Persistence and degradability**
- No data available

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Mobility in soil**
- No data available

**Other adverse effects**
- No data available

<table>
<thead>
<tr>
<th>Product</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulation</strong></td>
<td>40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>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).</td>
</tr>
</tbody>
</table>

**Additional ecological information**
- An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

<table>
<thead>
<tr>
<th>Waste from residues</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>The product should not be allowed to enter drains, water courses or the soil.</td>
<td></td>
</tr>
<tr>
<td>Do not contaminate ponds, waterways or ditches with chemical or used container.</td>
<td></td>
</tr>
<tr>
<td>Dispose of in accordance with local regulations.</td>
<td></td>
</tr>
<tr>
<td>Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or</td>
<td></td>
</tr>
</tbody>
</table>
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):
UN1993, FLAMMABLE LIQUID, N.O.S., (ISOPROPANOL), 3, III

Transportation Regulation: IATA (Cargo Air):
UN1993, Flammable liquid, n.o.s., (ISOPROPANOL), 3, III

Transportation Regulation: IATA (Passenger Air):
UN1993, Flammable liquid, n.o.s., (ISOPROPANOL), 3, 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

This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Pesticide Labeling Information Required Under U.S. FIFRA Regulations
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:
DANGER
Corrosive - causes irreversible eye damage.
Causes skin burns.
Harmful if swallowed.
Observe label precautions.

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**
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)
- 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:

<table>
<thead>
<tr>
<th>Inventory Acronym</th>
<th>Validity Area</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>
</tbody>
</table>

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:**
  - Health: 3
  - Reactivity: 0
  - Special hazard.

**HMIS III:**

- **HEALTH:** 3
- **FLAMMABILITY:** 3
- **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:** Flammable liquid and vapour. Causes skin irritation. Causes serious eye damage.
- **Precautionary statements:**
  - **Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash skin thoroughly after handling. Wear protective gloves/eye protection/face protection.
  - **Response:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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 occurs: 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.
  - **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. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®,...
Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.