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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| Material name | : | ZEP SPIRIT II DETERGENT DISINFECTANT | |
|------------------------------------|---|---|--|
| EPA ID Number: | | 1839-83-1270 | |
| Material number | : | 00000000000067923 | |
| Manufacturer or supplier's details | | | |
| Company | | Zep, Inc. | |
| Address | : | 350 Joe Frank Harris Parkway, SE Emerson, GA 30137 | |
| Telephone | : | 404-352-1680 | |

| Emergency telephone nur | nbe | ſS |
|-------------------------|-----|--|
| For SDS Information | : | Compliance Services 1-877-428-9937 |
| For a Medical Emergency | : | 877-541-2016 Toll Free - All Calls Recorded |
| For a Transportation | : | CHEMTREC: 800-424-9300 - All Calls Recorded. |
| Emergency | | In the District of Columbia 202-483-7616 |

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

| Appearance | liquid | |
|--------------------|----------------|---|
| Colour | colourless | |
| Odour | characteristic | - |
| GHS Classification | | |
| Eye irritation | : Category 2A | |

| Eye | irritation | |
|-----|------------|--|
|-----|------------|--|

GHS label elements

Hazard pictograms

Hazard statements

Signal word



| : | H319 | Causes | serious | eye | irritation. |
|---|------|--------|---------|-----|-------------|
|---|------|--------|---------|-----|-------------|

Precautionary statements : Prevention:

P264 Wash skin thoroughly after handling. P280 Wear eye protection/ face protection. **Response:**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

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easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration [%] |
|---|----------|-------------------|
| 2-(2-butoxyethoxy)ethanol | 112-34-5 | >= 5 - < 10 |
| tetrasodium ethylenediaminetetraacetate | 64-02-8 | >= 1 - < 5 |
| | | |

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

SECTION 4. FIRST AID MEASURES

| General advice | : Move out of dangerous area. 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 are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Causes serious eye irritation. Review section 2 of SDS to see all potential hazards. |
| Notes to physician | : Treat symptomatically. Symptoms may be delayed. |

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SECTION 5. FIREFIGHTING MEASURES

| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemic carbon dioxide. | al or |
|---|--|-----------|
| Unsuitable extinguishing media | High volume water jet | |
| Hazardous combustion products | Carbon dioxide (CO2) Carbon monoxide Smoke Nitrogen oxides (NOx) | |
| Specific extinguishing methods | Use extinguishing measures that are appropriate to circumstances and the surrounding environment. | local |
| Further information | Collect contaminated fire extinguishing water separa must not be discharged into drains. Fire residues and contaminated fire extinguishing w be disposed of in accordance with local regulations. | ater must |
| Special protective equipment for firefighters | Wear self-contained breathing apparatus for firefigh necessary. | ting if |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment. |
|---|--|
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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 or spray mist. Avoid contact with eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. 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. Electrical installations / working materials must comply with |

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the technological safety standards.

Materials to avoid : Store and keep away from, oxidizing agents and acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---------------------------|----------|---|---|-------|
| 2-(2-butoxyethoxy)ethanol | 112-34-5 | TWA (Inhalable fraction and vapor) | 10 ppm | ACGIH |

| Engineering measures | effective ventilation in all processing areas | |
|--|--|---|
| Personal protective equipme | t | |
| Respiratory protection | No personal respiratory protective equipment normally required. Follow personal protective equipment guidance noted on the product label when using this product, especially if cleaning areas soiled with blood or body fluids. | |
| | In the workplace- If a significant exposure or spill occurs, use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. | ; |
| Hand protection Material Remarks | Latex gloves When using this product to disinfect surfaces or handling items soiled with blood or body fluids use disposable latex gloves. Follow personal protective equipment guidance noted on the product label when using this product, especially if cleaning areas soiled with blood or body fluids. | |
| | Protective gloves In the workplace- If a significant exposure or spill occurs, use chemical-resistant gloves if prolonged or frequent contact is possible or likely. | |
| Eye protection | Safety glasses with side-shields Ensure that eyewash stations and safety showers are close to the workstation location. | C |
| Skin and body protection | For general disinfecting, no special protection is required. | |

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| | | |
| | Follow personal protective equipme product label when using this product areas soiled with blood or body flui | uct, especially if cleaning |
| | Choose body protection in relation concentration and amount of dange the specific 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 | : colourless |
| Odour | : characteristic |
| Odour Threshold | : No data available |
| рН | : 11.5 - 12.5 |
| Melting point/freezing point | : No data available |
| Boiling point | : >100 °C |
| Flash point | : > 93.3 °C Method: closed cup |
| Upper explosion limit | : not determined |
| Lower explosion limit | : not determined |
| Vapour pressure | : No data available |
| Density | : 1 g/cm3 |
| Solubility(ies) | |
| Water solubility | : soluble |
| 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 | : 3.8 mm2/s (20 °C) |

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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 Acids Alkali metals |
| Hazardous decomposition products | : Carbon oxides Nitrogen oxides (NOx) Ammonia |

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

| Aggravated Medical Condition Symptoms of Overexpos | None known. Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Causes serious eye irritation. Review section 2 of SDS to see all potential hazards. Treat symptomatically. Symptoms may be delayed. |
|--|--|
| 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. |
| 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 |

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Skin corrosion/irritation

Product:

Result: Mild skin irritation Method: Third Party Data - Actual or Inferred

Serious eye damage/eye irritation

Product:

Result: Eye irritation Method: Third Party Data - Actual or Inferred

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

Components:

tetrasodium ethylenediaminetetraacetate: Exposure routes: Inhalation Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish

:

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|---|---|---|-----------------------|
| - | | Remarks: Toxic to aquatic organis Harmful to aquatic organisms, may adverse effects in the aquatic envi | / cause long-term |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: Harmful to aquatic organ long-term adverse effects in the ac Toxic to aquatic organisms. | |
| Persistence and degradability | | | |
| No data available Bioaccumulative potential | | | |
| Product: | | | |
| Partition coefficient: n- octanol/water <u>Components:</u> 2-(2-butoxyethoxy)ethanol : Partition coefficient: n- octanol/water | | Remarks: No data available Pow: 1 | |
| Mobility in soil | | | |
| No data available | | | |
| Other adverse effects | | | |
| No data available Product: | | | |
| Regulation | | 40 CFR Protection of Environment Stratospheric Ozone - CAA Sectio Substances | |
| Remarks | | This product neither contains, nor with a Class I or Class II ODS as c Clean Air Act Section 602 (40 CFF + B). | lefined 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. 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 Provincial Environmental control agency, or the Hazardous |

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|------------------------|---|-----------------------------|
| | Waste Representative at the near guidance. | est EPA Regional Office for |
| 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

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: CAUTION

Causes moderate eye irritation. This pesticide is toxic to fish.

TSCA list

: No substances are subject to a Significant New Use Rule.

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No substances are subject to TSCA 12(b) export notification requirements.

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

CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------------|-----------|-----------------------|--------------------------------|
| sodium hydroxide | 1310-73-2 | 1000 | * |

*: 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 | : Serious eye damage or eye irritation | n | |
|----------------------|---|--|--------|
| SARA 302 | : No chemicals in this material are s requirements of SARA Title III, Sec | , , , | |
| SARA 313 | : This material does not contain any known CAS numbers that exceed reporting levels established by SAI The following components are sub established by SARA Title III, Sect | the threshold (De Minir RA Title III, Section 313 ject to reporting levels | nis) |
| | 2-(2-butoxyethoxy)ethanol | | 9572 % |
| | 2-butoxyethanol | 111-76-2 | 0.04 % |
| 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

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Further information

NFPA:



0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme

HMIS III:



0 = not significant, 1 =Slight,

2 = Moderate, 3 = High 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms

Signal word Hazard statements Precautionary statements



mark Warning: Causes serious eye irritation.

Prevention: Wash skin thoroughly after handling. Wear eye protection/ face protection. Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

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