## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP MORADO SUPER CLEANER 275GL

Material number : 000000000000085689

**Manufacturer or supplier's details**

Company : Zep Inc.

Address : 350 Joe Frank Harris Parkway, SE
Emerson, GA 30137

Telephone : Compliance Services - 877-428-9937

**Emergency telephone numbers**

| | | |
|---|---|---|
| **For SDS Information** | : | Compliance Services - 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.<br>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 | purple |
| Odour | ether-like |

**GHS Classification**

Skin corrosion : Category 1
Serious eye damage : Category 1

**GHS label elements**

Hazard pictograms :

Corrosion

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
**Response:**
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off

immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
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.
P363 Wash contaminated clothing before reuse.
**Storage:**
P405 Store locked up.
**Disposal:**
P501 Dispose of contents/container in accordance with local regulation.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Hazardous components**

| Chemical name | CAS-No. | Concentration [%] |
|---|---|---|
| Alcohols, C9-11, ethoxylated | 68439-46-3 | >= 3 - < 5 |
| 2-butoxyethanol | 111-76-2 | >= 1 - < 3 |
| sodium hydroxide | 1310-73-2 | >= 1 - < 3 |
| Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts | 68081-81-2 | >= 1 - < 3 |

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.
Get medical attention immediately.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Wash off immediately with plenty of water for at least 15 minutes.
If skin irritation persists, call a physician.
Remove contaminated clothing and shoes.
Wash contaminated clothing before reuse.

In case of eye contact : Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.
Rinse immediately with plenty of water, also under the eyelids, for at least 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.
Never give anything by mouth to an unconscious person.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Take victim immediately to hospital.
Do not give milk or alcoholic beverages.

Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.
Symptoms may include blistering, irritation, burns, and pain.
Effects are dependent on exposure (dose, concentration, contact time).
Causes severe skin burns and 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 : Dry chemical
Water spray jet
Alcohol-resistant foam
Carbon dioxide (CO2)

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.
Standard procedure for chemical fires.

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.<br>Prevent further leakage or spillage if safe to do so.<br>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).<br>Keep in suitable, closed containers for disposal. |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on safe handling | : | Avoid exposure - obtain special instructions before use.<br>Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Do not breathe vapours or spray mist.<br>Take precautionary measures against static discharges.<br>Provide sufficient air exchange and/or exhaust in work rooms.<br>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.<br>Observe label precautions.<br>Electrical installations / working materials must comply with 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-butoxyethanol | 111-76-2 | TWA | 20 ppm | ACGIH |
| | | TWA | 5 ppm<br>24 mg/m3 | NIOSH REL |
| | | TWA | 50 ppm<br>240 mg/m3 | OSHA Z-1 |
| | | TWA | 25 ppm<br>120 mg/m3 | OSHA P0 |
| | | PEL | 20 ppm<br>97 mg/m3 | CAL PEL |
| sodium hydroxide | 1310-73-2 | C | 2 mg/m3 | ACGIH |

| | | | | |
|---|---|---|---|---|
| | | C | 2 mg/m3 | NIOSH REL |
| | | TWA | 2 mg/m3 | OSHA Z-1 |
| | | C | 2 mg/m3 | OSHA P0 |
| | | C | 2 mg/m3 | CAL PEL |

**Biological occupational exposure limits**

| Component | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---|---|---|---|---|---|---|
| 2-BUTOXYETHANOL | 111-76-2 | Butoxyacetic acid (BAA) | Urine | End of shift (As soon as possible after exposure ceases) | 200.mg/g Creatinine | ACGIH BEI |

**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 : 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 : purple

Odour : ether-like

Odour Threshold : No data available

| | | |
|---|---|---|
| pH | : | 13.5 |
| Melting point/freezing point | : | No data available |
| Boiling point | : | 98.9 °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 | : | 1.0230 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 | : | 6.6 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 | : | Heat, flames and sparks. |
| Incompatible materials | : | Acids<br>Oxidizing agents<br>This product contains sodium hydroxide or potassium hydroxide that may corrode some soft metals and may react with tin, zinc, aluminum to form hydrogen gas. |
| Hazardous decomposition products | : | Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). |

## SECTION 11. TOXICOLOGICAL INFORMATION

### Potential Health Effects

| | | |
|---|---|---|
| Aggravated Medical Condition | : | None known. |
| Symptoms of Overexposure | : | Effects are immediate and delayed.<br>Symptoms may include blistering, irritation, burns, and pain.<br>Effects are dependent on exposure (dose, concentration, contact time).<br>Causes severe skin burns and eye damage.<br>Review section 2 of SDS to see all potential hazards.<br>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** | Confirmed animal carcinogen with unknown relevance to humans<br>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<br>Method: Calculation method |
| Acute inhalation toxicity | : | Acute toxicity estimate : > 200 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br>Method: Calculation method |
| Acute dermal toxicity | : | Acute toxicity estimate : > 5,000 mg/kg<br>Method: Calculation method |

**Components:**

**Alcohols, C9-11, ethoxylated:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 Oral Rat: 1,400 mg/kg |

**2-butoxyethanol:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 Oral Rat: 880 mg/kg |

Acute dermal toxicity : LD50 Dermal Rabbit: 1,060 mg/kg

**sodium hydroxide:**
Acute dermal toxicity : Acute toxicity estimate Rabbit: 1,350 mg/kg

**Skin corrosion/irritation**

**Product:**

Remarks: Extremely corrosive and destructive to tissue.

**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**

**Product:**

Remarks: No data available

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**
**sodium hydroxide :**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Gambusia affinis (Mosquito fish)): 125 mg/l<br>Exposure time: 96 h<br>Test Method: static test<br><br>LC50 (Oncorhynchus tshawytscha (chinook salmon)): 152 mg/l<br>Exposure time: 96 h<br><br>LC50 (Oncorhynchus mykiss (rainbow trout)): 40 mg/l<br>Exposure time: 48 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 34 - 47 mg/l<br>Exposure time: 48 h<br><br>EC50 (Crangon crangon (shrimp)): 33 - 100 mg/l<br>Exposure time: 48 h |

**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. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). |

| | | |
|---|---|---|
| Additional ecological information | : | Not applicable |

**Components:**
**sodium hydroxide :**

| | | |
|---|---|---|
| Additional ecological information | : | Harmful to aquatic life. |

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Do not dispose of waste into sewer.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Dispose of in accordance with local regulations. |
| Contaminated packaging | : | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers. |

## SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IMDG (Vessel):
UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IATA (Cargo Air):
UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IATA (Passenger Air):
UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: TDG (Canada):
UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II

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**

| 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** : 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** : The following components are subject to reporting levels established by SARA Title III, Section 313:

| | | |
|---|---|---|
| 2-butoxyethanol | 111-76-2 | 2.9312 % |

**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:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| INSTABILITY | 0 |
| SPECIAL HAZARD. | |

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

**HMIS III:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |

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

**OSHA - GHS Label Information:**

Hazard pictograms :

Corrosion

Signal word : **Danger:**
Hazard statements : Causes severe skin burns and eye damage.
Precautionary statements :

**Prevention:** Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. 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. Wash contaminated clothing before reuse.
**Storage:** Store locked up.
**Disposal:** Dispose of contents/container in accordance with local regulation.

| | |
|---|---|
| Version: | 5.1 |
| Revision Date: | 10/01/2023 |
| Print Date: | 04/19/2024 |

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