

# SAFETY DATA SHEET

## ZEP MORADO L.F.\_20L

Version 1.1

Revision Date 10/01/2023

Print Date 04/27/2025

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP MORADO L.F.\_20L

Material number : 914047C

#### Manufacturer or supplier's details

Company : Zep Inc.

Address : 11627 - 178 Street  
Edmonton, Alberta T5S 1N6  
Canada

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.

#### Recommended use of the chemical and restrictions on use

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	liquid
Colour	colourless
Odour	ether-like

#### GHS Classification

Flammable liquids : Category 4  
Acute toxicity (Oral) : Category 4  
Skin corrosion : Category 1  
Serious eye damage : Category 1

#### GHS label elements

Hazard pictograms :



Signal word : Danger

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Hazard statements : H227 Combustible liquid.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
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.  
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.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
**Storage:**  
P403 Store in a well-ventilated place.  
**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 [%]
2-butoxyethanol	111-76-2	>= 5 - < 10
potassium hydroxide	1310-58-3	>= 1 - < 5
sodium xylenesulphonate	1300-72-7	>= 1 - < 5
Alcohols, C8-10, ethoxylated propoxylated	68603-25-8	>= 1 - < 5
sodium hydroxide	1310-73-2	>= 1 - < 5

### 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.

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- 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.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.
- 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.
- Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.  
Symptoms may include blistering, irritation, burns, and pain.  
Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness.  
Effects are dependent on exposure (dose, concentration, contact time).  
Causes severe skin burns and eye damage.  
Harmful if swallowed.  
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 : Carbon dioxide (CO<sub>2</sub>)  
Water spray jet  
Alcohol-resistant foam  
Dry chemical

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Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide Smoke Sulphur oxides
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.

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### 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	: 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). Keep in suitable, closed containers for disposal.

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### SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours or spray mist. Avoid exposure - obtain special instructions before use. Dispose of rinse water in accordance with local and national regulations. Take precautionary measures against static discharges.
Conditions for safe storage	: No smoking.

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Keep in a well-ventilated place.  
Observe label precautions.  
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 97 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	20 ppm 97 mg/m3	CA QC OEL
		TWA	20 ppm	ACGIH
potassium hydroxide	1310-58-3	(c)	2 mg/m3	CA AB OEL
		C	2 mg/m3	CA BC OEL
		C	2 mg/m3	CA QC OEL
		C	2 mg/m3	ACGIH
sodium hydroxide	1310-73-2	(c)	2 mg/m3	CA AB OEL
		C	2 mg/m3	CA BC OEL
		C	2 mg/m3	CA QC OEL
		C	2 mg/m3	ACGIH

#### Biological occupational exposure limits

Components	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 : Ensure that eyewash stations and safety showers are close to

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	the workstation location. Safety glasses
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.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless
Odour	: ether-like
Odour Threshold	: No data available
pH	: 13 - 14
Melting point/freezing point	: No data available
Boiling point	: 99 °C
Flash point	: 71 °C Method: closed cup
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
Relative density	: 1.09
Density	: 1.09 g/cm3
Solubility(ies)	
Water solubility	: soluble in cold water, soluble in hot water
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available

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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	: Heat, flames and sparks.
Incompatible materials	: Acids Metals Oxidizing agents
Hazardous decomposition products	: No decomposition if stored and applied as directed.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Potential Health Effects

Aggravated Medical Condition : None known.

Symptoms of Overexposure : Effects are immediate and delayed.  
Symptoms may include blistering, irritation, burns, and pain.  
Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness.  
Effects are dependent on exposure (dose, concentration, contact time).  
Causes severe skin burns and eye damage.  
Harmful if swallowed.  
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.

#### Acute toxicity

##### Product:

Acute oral toxicity : Acute toxicity estimate : 1,731 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 40 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

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

### **Components:**

#### **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



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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### **sodium hydroxide :**

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

#### Persistence and degradability

No data available

#### Bioaccumulative potential

##### Product:

Partition coefficient: n- octanol/water	: Remarks: No data available
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#### Mobility in soil

No data available

#### Other adverse effects

No data available

##### Product:

Additional ecological information	: No data available
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##### Components:

##### **sodium hydroxide :**

Additional ecological information	: Harmful to aquatic life.
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### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues	: Do not dispose of waste into sewer.
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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.

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### SECTION 14. TRANSPORT INFORMATION

Transportation Regulation (TDG) / Règlement Pour Le Transport (TMD): (Canada): UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II
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Transportation Regulation / Règlement Pour Le Transport: IMDG (Vessel): UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II
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Transportation Regulation / Règlement Pour Le Transport: IATA (Cargo Air): UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II
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Transportation Regulation / Règlement Pour Le Transport: IATA (Passenger Air): UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II
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Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA): UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II
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The product as delivered to the customer conforms to packaging requirements for shipment by road under Transport Dangerous Goods (TDG) Canada 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.

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### SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

**The components of this product are reported in the following inventories:**

<b>TSCA</b>	On TSCA Inventory
<b>DSL</b>	All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

**Inventory Acronym and Validity Area Legend:**

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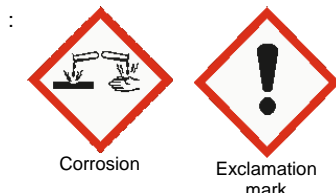
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TSCA (USA), DSL (Canada), NDSL (Canada)

### SECTION 16. OTHER INFORMATION

WHMIS - GHS Label Information:

Hazard pictograms



Signal word

Hazard statements

Precautionary statements

:

**Danger:**

Combustible liquid. Harmful if swallowed. Causes severe skin burns and eye damage.

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:** Store in a well-ventilated place.

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

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