

SAFETY DATA SHEET

ZEP MORADO SUPER CLEANER 4-4L

Version 2.1

Revision Date 10/01/2023

Print Date 08/06/2024

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP MORADO SUPER CLEANER 4-4L

Material number : 85654C

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	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:**

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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.

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	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 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.

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.
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.
In the case of contact with eyes, rinse immediately with plenty

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- of water and seek medical advice.
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.
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.
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 : Water spray
Dry powder
Foam
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
Sulphur oxides
- Specific extinguishing methods : Standard procedure for chemical fires.
- 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.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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- 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 : Neutralise with acid.
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/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
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 : Keep container tightly closed in a dry and 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/m ³	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	20 ppm 97 mg/m ³	CA QC OEL
sodium hydroxide	1310-73-2	TWA	20 ppm	ACGIH
		(c)	2 mg/m ³	CA AB OEL
		C	2 mg/m ³	CA BC OEL
		C	2 mg/m ³	CA QC OEL
		C	2 mg/m ³	ACGIH

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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

: 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 workplace.

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 : 13.0 - 14.0

Melting point/freezing point : No data available

Boiling point : 98.9 °C

Flash point : 93.3 °C
Method: closed cup

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93.3 °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

Density : 1.063 g/cm³

Solubility(ies)

Water solubility : soluble

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 : No data available

Incompatible materials : Oxidizing agents
Acids

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition : None known.

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Symptoms of Overexposure : 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.
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

2-butoxyethanol

111-76-2

Acute toxicity

Product:

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

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

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

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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
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

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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

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

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.
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.

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

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

Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA):
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 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.

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:

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

WHMIS - 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. 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

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reuse.

Storage: Store locked up.

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

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