

SAFETY DATA SHEET



Zep Micronex Hard Water Formulation

Version 1.0

Revision Date 05/22/2015

Print Date 10/15/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Zep Micronex Hard Water Formulation

EPA ID Number: 47371-129-1270

Material number : 00000000000068999

Manufacturer or supplier's details

Company : Zep, Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid, viscous
Colour	orange, clear
Odour	characteristic

GHS Classification

Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1
Serious eye damage : Category 1
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.

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P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician 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): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/ physician.

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 or doctor/ physician.

P363 Wash contaminated clothing before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

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

Potential Health Effects**Carcinogenicity:****IARC**

Group 2B: Possibly carcinogenic to humans

ACGIH

trisodium nitrilotriacetate 5064-31-3
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 identified as a carcinogen or potential carcinogen by OSHA.

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
didecyldimethylammonium chloride	7173-51-5	>= 10 - < 20
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	>= 5 - < 10
tetrasodium ethylenediaminetetraacetate	64-02-8	>= 1 - < 5

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1-Octanamine, N,N-dimethyl-, N-oxide	2605-78-9	>= 1 - < 5
ethanol	64-17-5	>= 1 - < 5
trisodium nitrilotriacetate	5064-31-3	>= 0.1 - < 1

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.
Oxygen or artificial respiration if needed.
- In case of skin contact** : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.
If symptoms persist, call a physician.
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.
If in eyes, rinse with water for 15 minutes.
- 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.
If conscious, drink plenty of water.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- 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.

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Hazardous combustion products	:	Carbon dioxide (CO ₂) Carbon monoxide Nitrogen oxides (NO _x) 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.
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. 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	:	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	:	Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0

Personal protective equipment

- Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
No personal respiratory protective equipment normally required.
- Hand protection**
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection** : Safety goggles
Face-shield
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, viscous
- Colour** : orange, clear
- Odour** : characteristic
- Odour Threshold** : no data available
- pH** : 7.2 - 8.2
- Melting point/freezing point** : no data available
- Boiling point** : not determined
- Flash point** : > 93,3 °C
Method: closed cup
- Evaporation rate** : 1

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Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: not determined
Relative vapour density	: no data available
Density	: 1.013 g/cm ³
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	: 18.9 mm ² /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	: Extremes of temperature and direct sunlight.
Incompatible materials	: Reducing agents Oxidizing agents
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NO _x) Amines

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	: Acute toxicity estimate : 1,611 mg/kg Method: Calculation method
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Components:

ethanol:

Acute oral toxicity : LD50 Oral rat: 7,060 mg/kg

Acute inhalation toxicity : LC50 rat: 124.7 mg/l
Exposure time: 4 h

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

Product:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

no data available

didecyldimethylammonium chloride:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

tetrasodium ethylenediaminetetraacetate:

1-Octanamine, N,N-dimethyl-, N-oxide:

ethanol:

trisodium nitrilotriacetate:

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

no data available

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 : 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.

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):

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UN1903, Disinfectants, liquid, corrosive n.o.s., (QUATERNARY AMMONIUM COMPOUNDS, C12-14-ALKYL[(ETHYLPHENYL)METHYL]DIMETHYL, CHLORIDES (RH)), 8, III

Transportation Regulation: IMDG (Vessel):
UN1903, DISINFECTANT, LIQUID, CORROSIVE, N.O.S., (QUATERNARY AMMONIUM COMPOUNDS, C12-14-ALKYL[(ETHYLPHENYL)METHYL]DIMETHYL, CHLORIDES (RH)), 8, III

Transportation Regulation: IATA (Cargo Air):
UN1903, Disinfectant, liquid, corrosive, n.o.s., (QUATERNARY AMMONIUM COMPOUNDS, C12-14-ALKYL[(ETHYLPHENYL)METHYL]DIMETHYL, CHLORIDES (RH)), 8, III

Transportation Regulation: IATA (Passenger Air):
UN1903, Disinfectant, liquid, corrosive, n.o.s., (QUATERNARY AMMONIUM COMPOUNDS, C12-14-ALKYL[(ETHYLPHENYL)METHYL]DIMETHYL, CHLORIDES (RH)), 8, III

Transportation Regulation: TDG (Canada):
UN1903, DISINFECTANT, LIQUID, CORROSIVE, N.O.S., (QUATERNARY AMMONIUM COMPOUNDS, C12-14-ALKYL[(ETHYLPHENYL)METHYL]DIMETHYL, CHLORIDES (RH)), 8, III

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 inhaled.

Harmful if swallowed.

Harmful if absorbed through skin.

Observe label precautions.

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 : Acute Health Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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SARA 313 : 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:

TSCA On TSCA Inventory
DSL This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS Not in compliance with the inventory
NZIoC Not in compliance with the inventory
PICCS Not in compliance with the inventory
IECSC Not in compliance with the inventory

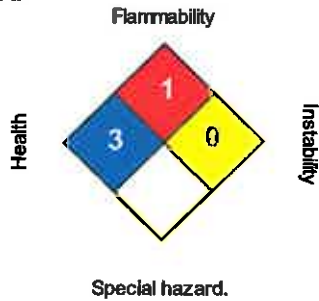
Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



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



Signal word
 Hazard statements

Danger:
 Harmful if sw allowed. Causes severe skin burns and eye damage. May cause respiratory irritation.

Precautionary statements

Prevention: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only

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outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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 or doctor/ physician. Wash contaminated clothing before reuse.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

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