

Material Safety Data Sheet



Zep Inc.
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1-877-I-BUY-ZEP (428-9937)
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Section 1. Chemical Product and Company Identification

Product name ZEP MICRONEX HARD WATER FORMULATION
Product use Disinfectant. detergent. Deodorizer
Product code 0689
Date of issue 06/02/09 **Supersedes** 10/26/04

This product is a registered pesticide. Product registration number 47371-129-1270

Emergency Telephone Numbers

For MSDS Information:

Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency

(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency

CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

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Prepared By

Compliance Services
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Section 2. Hazards Identification

Emergency overview

DANGER !

CAUSES EYE AND SKIN BURNS. HARMFUL IF SWALLOWED.
VAPOR HARMFUL.

*Hazard Determination System (HDS): Health, Flammability, Reactivity



NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry

Dermal contact. Eye contact. Inhalation.

Eyes

Causes eye burns. Direct contact with the eyes can cause irreversible damage, including blindness.

Skin

Causes skin burns. The amount of tissue damage depends on length of contact. Causes skin irritation. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

Inhalation

Avoid inhalation of vapor, spray or mist. Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system (CNS) depression.

Ingestion

Harmful if swallowed. May cause burns to mouth, throat and stomach.

Chronic effects

Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation, leading to frequent attacks of bronchial infection. Contains material which may cause damage to the following organs: kidneys, liver, central nervous system (CNS), optic nerve.

Carcinogenicity

No known significant effects or critical hazards.

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
QUATERNARY AMMONIUM CHLORIDES; blend of N, N-Didecyl-N, N-dimethylammonium chloride, N-alkyl (C12-C16)-N,N-dimethylbenzyl ammonium chloride, Ethanol	7173-51-5; 68424-85-1; 64-17-5	10 - 20
N,N-DIMETHYL-DODECYLAMINE-N-OXIDE; n-dodecyl-dimethylamine oxide; lauramine oxide	1643-20-5	10 - 20
TETRASODIUM ETHYLENEDIAMINE TETRAACETATE; ethylenediamine tetraacetic acid; tetrasodium salt	64-02-8	<5
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<5

Section 4. First Aid Measures

- Eye Contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention immediately.
- Skin Contact** Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Get medical attention if irritation develops.
- Inhalation** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion** Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)



- Flash Point** Open cup: >93.33°C (>200°F)
- Flammable Limits** Not determined.
- Flammability** Non-flammable.
- Fire hazard** In a fire or if heated, a pressure increase will occur and the container may burst.
- Fire-Fighting Procedures** Use an extinguishing agent suitable for the surrounding fire.

Section 6. Accidental Release Measures

- Spill Clean up** Put on appropriate personal protective equipment (see section 8). Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

Section 7. Handling and Storage

- Handling** Put on appropriate personal protective equipment (see section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Do not reuse container. Wash thoroughly after handling. Apply this product only as specified on the label.
- Storage** Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection**Product name**

ETHANOL; ethyl alcohol; grain alcohol

Exposure limitsOSHA (United States).
TWA: 1000 ppm**Personal Protective Equipment (PPE)**

- Eyes** Splash goggles. Face shield.
- Body** Wear appropriate protective clothing to prevent skin contact. Recommended: Rubber gloves. Neoprene gloves. Nitrile gloves. Synthetic apron.
- Respiratory** Use with adequate ventilation. A respirator is not needed under normal and intended conditions of product use.

**Section 9. Physical and Chemical Properties**

- Physical State** Liquid. [Viscous liquid.]
- pH** 7.2 - 8.2
- Boiling Point** Not determined.
- Specific Gravity** 1
- Solubility** Easily soluble in the following materials: cold water and hot water.
- Color** Clear. Orange.
- Odor** Lemon-like.
- Vapor Pressure** Not determined.
- Vapor Density** Not determined.
- Evaporation Rate** 1 (Water = 1)
- VOC (Consumer)** 25.96 (g/l). 0.22 lbs/gal 2.6%

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: oxidizing materials and reducing materials.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ etc.), amines, Hydrogen chloride (HCl).

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Quaternary Ammonium Chlorides	LD50 Dermal	Rat	204 mg/kg	-
	LD50 Oral	Rat	366 mg/kg	-
n,n-Dimethyl-Dodecylamine-n-Oxide	LD50 Oral	Mouse	2700 mg/kg	-
	LD50 Oral	Rat	1518 mg/kg	-
Tetrasodium Ethylenediamine Tetraacetate	LD50 Oral	Rat	4100 mg/kg	-
Ethanol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	7060 mg/kg	-
	LC50 Inhalation Vapor	Rat	3000 ppm	4 hours

Section 12. Ecological Information

Environmental Effects Do not contaminate water by cleaning of equipment or disposal of wastes.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Quaternary Ammonium Chlorides	-	Acute LC50 0.52 mg/l	Fish	96 hours

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Non-hazardous waste

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	1903	Disinfectant, Liquid, Corrosive, NOS (Mixed Quaternary Ammonium Compounds) or Consumer commodity in Limited quantity	8	II	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution.
Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.