

# SAFETY DATA SHEET

## ZEP ANTI-RUST

Version 2.1

Revision Date 10/01/2023

Print Date 04/25/2025

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP ANTI-RUST

Material number : 000000000000104985

#### 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.  
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	blue, clear
Odour	odourless

#### GHS Classification

Eye irritation : Category 2A

Carcinogenicity : Category 2

#### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.  
H351 Suspected of causing cancer.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye

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protection/ face protection.

### Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

### 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 [%]
2,2',2''-nitrilotriethanol	102-71-6	>= 10 - < 20
Poly(oxy-1,2-ethanediyl), .alpha.-phenyl-.omega.-hydroxy-, phosphate. TEA salt	Not Assigned	>= 10 - < 20
sodium nitrite	7632-00-0	>= 3 - < 5
2,2'-iminodiethanol	111-42-2	>= 0.1 - < 1

The exact percentages of disclosed substances are withheld as trade secrets.

## 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 : In case of contact, immediately flush skin with plenty of water.  
Take off contaminated clothing and shoes immediately.  
Get medical attention if irritation develops and persists.  
Wash contaminated clothing before re-use.
- In case of eye contact : Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
Rinse immediately with plenty of water for at least 15 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

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	<p>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.</p>
Most important symptoms and effects, both acute and delayed	<p>: Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Chronic effects are delayed and symptoms may not be observed during an exposure. Effects are dependent on exposure (dose, concentration, contact time). Causes serious eye irritation. Suspected of causing cancer. Review section 2 of SDS to see all potential hazards.</p>
Notes to physician	<p>: Treat symptomatically. Symptoms may be delayed.</p>

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### 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.
Hazardous combustion products	: Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide Nitrogen oxides (NO <sub>x</sub> ) Smoke Phosphorus compounds
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.

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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.

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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 or spray mist.  
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.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Oxidizing agents  
Do not store near acids.  
Do not freeze.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2,2',2''-nitrilotriethanol	102-71-6	TWA	5 mg/m <sup>3</sup>	ACGIH
		PEL	5 mg/m <sup>3</sup>	CAL PEL
2,2'-iminodiethanol	111-42-2	TWA (Inhalable fraction and vapor)	1 mg/m <sup>3</sup>	ACGIH
		TWA	3 ppm 15 mg/m <sup>3</sup>	NIOSH REL
		TWA	3 ppm 15 mg/m <sup>3</sup>	OSHA P0
		PEL	0.46 ppm 2 mg/m <sup>3</sup>	CAL PEL

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

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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	
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	: blue, clear
Odour	: odourless
Odour Threshold	: No data available
pH	: 8.5 - 9.5
Melting point/freezing point	: No data available
Boiling point	: 100 °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	: 1.085 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: No data available

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Auto-ignition temperature : not determined  
Thermal decomposition : No data available  
Viscosity  
Viscosity, kinematic : 6.7 mm<sup>2</sup>/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 : Oxidizing agents  
Acids  
Hazardous decomposition products : Nitrogen oxides (NO<sub>x</sub>)  
Phosphorus compounds  
Carbon oxides

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Potential Health Effects

Aggravated Medical Condition : None known.  
Symptoms of Overexposure : Effects are immediate and delayed.  
Symptoms may include irritation, redness, pain, and rash.  
Chronic effects are delayed and symptoms may not be observed during an exposure.  
Effects are dependent on exposure (dose, concentration, contact time).  
Causes serious eye irritation.  
Suspected of causing cancer.  
Review section 2 of SDS to see all potential hazards.  
Treat symptomatically. Symptoms may be delayed.

#### Carcinogenicity:

##### IARC

Group 2A: Probably carcinogenic to humans  
sodium nitrite  
Group 2B: Possibly carcinogenic to humans

7632-00-0

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<b>ACGIH</b>	2,2'-iminodiethanol	111-42-2
	Confirmed animal carcinogen with unknown relevance to humans	
<b>OSHA</b>	2,2'-iminodiethanol	111-42-2
	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
<b>NTP</b>	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 : 2,329 mg/kg  
Method: Calculation method

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

#### Components:

##### **2,2',2''-nitrilotriethanol:**

Acute oral toxicity : LD50 Rat: 6,400 mg/kg

Acute dermal toxicity : LD50 Rabbit: > 22,500 mg/kg

### Skin corrosion/irritation

#### Product:

Remarks: May cause skin irritation in susceptible persons.

### 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

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### Aspiration toxicity

No data available

### Further information

#### Product:

Remarks: No data available

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **2,2',2''-nitrilotriethanol :**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 450 - < 1,000 mg/l  
Exposure time: 96 h  
Method: Third Party Data - Actual or Inferred

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia (water flea)): > 565 - < 658 mg/l  
Exposure time: 48 h  
Method: Third Party Data - Actual or Inferred

### Persistence and degradability

No data available

### Bioaccumulative potential

#### Product:

Partition coefficient: n-octanol/water : Remarks: No data available

#### Components:

##### **2,2',2''-nitrilotriethanol :**

Partition coefficient: n-octanol/water : log Pow: -1

##### **2,2'-iminodiethanol :**

Partition coefficient: n-octanol/water : Pow: 1.43

### 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



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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

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.  
The GHS H401 statement "Toxic to aquatic life" noted above is an Acute Aquatic Toxicity Category 2 classification. Although the product has the potential to harm the environment, it is not classified as a marine pollutant or regulated under transportation regulations.

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues

: The product should not be allowed to enter drains, water courses or the soil.  
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):  
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):  
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Cargo Air):  
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air):  
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: TDG (Canada):  
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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.

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:  
sodium nitrite 7632-00-0

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium nitrite	7632-00-0	100	2521

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Serious eye damage or eye irritation  
Carcinogenicity

**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:  
sodium nitrite 7632-00-0 3.9663 %

##### California Prop. 65



WARNING: This product can expose you to chemicals including 2,2'-iminodiethanol, which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

**DSL** This product contains one or several components that are not on the Canadian DSL nor NDSL.

**TSCA** On TSCA Inventory

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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	2
FLAMMABILITY	1
INSTABILITY	0
SPECIAL HAZARD.	

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

#### HMIS III:

HEALTH	2*
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

: **Warning:**  
: Causes serious eye irritation. Suspected of causing cancer.

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Precautionary statements

:

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention.

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

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