

SAFETY DATA SHEET

ZEP PROTEIN STAIN REMOVER

Version 1.2

Revision Date 10/01/2023

Print Date 04/27/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP PROTEIN STAIN REMOVER

Material number : 156311C

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, light yellow
Odour	mild

GHS Classification

Skin irritation : Category 2
Eye irritation : Category 2A
Carcinogenicity : Category 2
Specific target organ toxicity - repeated exposure (Oral) : Category 2

GHS label elements

Hazard pictograms :



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Health hazard

Exclamation
mark

Signal word	: Warning Warning
Hazard statements	: H315 Causes skin irritation. H319 Causes serious eye irritation. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
Precautionary statements	: Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P302 + P352 IF ON SKIN: Wash with plenty of water. 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. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P302 + P352 IF ON SKIN: Wash with plenty of water. 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. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before

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reuse.

Storage:

P405 Store locked up.

Disposal:

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

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 [%]
propane-1,2-diol	57-55-6	≥ 10 - < 30
sodium dodecylbenzenesulfonate	25155-30-0	≥ 5 - < 10
Amides, coco, N,N-bis(hydroxyethyl)	68603-42-9	≥ 5 - < 10
Triethylamine tallate	8043-27-4	≥ 5 - < 10
propan-2-ol	67-63-0	≥ 1 - < 5
2,2',2''-nitrilotriethanol	102-71-6	≥ 1 - < 5
Alcohols, C12-15, ethoxylated	68131-39-5	≥ 1 - < 5
2,2'-iminodiethanol	111-42-2	≥ 1 - < 5
propane-1,2-diol	57-55-6	≥ 10 - < 30
sodium dodecylbenzenesulfonate	25155-30-0	≥ 5 - < 10
Amides, coco, N,N-bis(hydroxyethyl)	68603-42-9	≥ 5 - < 10
Triethylamine tallate	8043-27-4	≥ 5 - < 10
propan-2-ol	67-63-0	≥ 1 - < 5
2,2',2''-nitrilotriethanol	102-71-6	≥ 1 - < 5
Alcohols, C12-15, ethoxylated	68131-39-5	≥ 1 - < 5
2,2'-iminodiethanol	111-42-2	≥ 1 - < 3

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
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 : If skin irritation persists, call a physician.
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
If on clothes, remove clothes.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Remove contact lenses.

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	<p>Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.</p>
If swallowed	<p>: DO NOT induce vomiting unless directed to do so by a physician or poison control center. Keep respiratory tract clear. 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. Effects are dependent on exposure (dose, concentration, contact time). Chronic effects are delayed and symptoms may not be observed during an exposure. Symptoms may differ depending on organs and systems affected. These effects generally are reflected in reduced function or change, which may include cramping, swelling, respiratory issues, and general pain. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. Review section 2 of SDS to see all potential hazards. May cause damage to organs through prolonged or repeated exposure if swallowed.</p>
Notes to physician	<p>: Treat symptomatically. Symptoms may be delayed.</p>

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	<p>: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</p>
Unsuitable extinguishing media	<p>: High volume water jet</p>
Specific hazards during firefighting	<p>: Do not allow run-off from fire fighting to enter drains or water courses.</p>
Hazardous combustion products	<p>: Carbon dioxide (CO₂) Carbon monoxide Smoke Nitrogen oxides (NO_x)</p>
Specific extinguishing methods	<p>: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.</p>
Further information	<p>: Standard procedure for chemical fires.</p>
Special protective equipment for firefighters	<p>: Wear self-contained breathing apparatus for firefighting if necessary.</p>

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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 : 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 exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
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 : No special restrictions on storage with other products.
Keep away from food and drink.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propane-1,2-diol	57-55-6	TWA (Vapour and aerosols)	50 ppm 155 mg/m3	CA ON OEL
		TWA (aerosol)	10 mg/m3	CA ON OEL
propan-2-ol	67-63-0	TWA	200 ppm 492 mg/m3	CA AB OEL
		STEL	400 ppm 984 mg/m3	CA AB OEL
		TWA	200 ppm	CA BC OEL
		STEL	400 ppm	CA BC OEL

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		TWAEV	400 ppm 983 mg/m3	CA QC OEL
		STEV	500 ppm 1,230 mg/m3	CA QC OEL
		TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
2,2',2''-nitrilotriethanol	102-71-6	TWA	5 mg/m3	CA AB OEL
		TWA	5 mg/m3	CA BC OEL
		TWA	0.5 ppm 3.1 mg/m3	CA ON OEL
		TWAEV	5 mg/m3	CA QC OEL
		TWA	5 mg/m3	ACGIH
2,2'-iminodiethanol	111-42-2	TWA	2 mg/m3	CA AB OEL
		TWA	2 mg/m3	CA BC OEL
		TWAEV	3 ppm 13 mg/m3	CA QC OEL
		TWA (Inhalable fraction and vapor)	1 mg/m3	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
PROPAN-2-OL	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	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 : 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.

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When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless, light yellow
Odour	: mild
Odour Threshold	: No data available
pH	: 8.5 - 9
Melting point/freezing point	: No data available
Boiling point	: 100 °C
Flash point	: No data available
Evaporation rate	: 1
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: not determined
Density	: 1.05 g/cm ³
Solubility(ies)	
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available

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	: None.

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

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.
Effects are dependent on exposure (dose, concentration, contact time).
Chronic effects are delayed and symptoms may not be observed during an exposure.
Symptoms may differ depending on organs and systems affected. These effects generally are reflected in reduced function or change, which may include cramping, swelling, respiratory issues, and general pain.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
Review section 2 of SDS to see all potential hazards.
May cause damage to organs through prolonged or repeated exposure if swallowed.
Treat symptomatically. Symptoms may be delayed.

Carcinogenicity:

IARC

Group 2B: Possibly carcinogenic to humans

2,2'-iminodiethanol 111-42-2

Amides, coco, N,N-bis(hydroxyethyl) 68603-42-9

ACGIH

Confirmed animal carcinogen with unknown relevance to humans

2,2'-iminodiethanol 111-42-2

Confirmed animal carcinogen with unknown relevance to humans

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 2,483 mg/kg
Method: Calculation method

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

Components:

sodium dodecylbenzenesulfonate:

Acute oral toxicity : LD50 Oral Rat: 438 mg/kg

propan-2-ol:

Acute oral toxicity : LD50 Oral Rat: 4,396 mg/kg
Method: Calculation method

2,2',2''-nitrilotriethanol:

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

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

Alcohols, C12-15, ethoxylated:

Acute oral toxicity : LD50 Oral Rat: 500 - 5,000 mg/kg

sodium dodecylbenzenesulfonate:

Acute oral toxicity : LD50 Oral Rat: 438 mg/kg

propan-2-ol:

Acute oral toxicity : LD50 Oral Rat: 4,396 mg/kg
Method: Calculation method

2,2',2''-nitrilotriethanol:

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

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

Alcohols, C12-15, ethoxylated:

Acute oral toxicity : LD50 Oral Rat: 500 - 5,000 mg/kg

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

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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

Components:

Amides, coco, N,N-bis(hydroxyethyl):

Remarks: No data available

Amides, coco, N,N-bis(hydroxyethyl):

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

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

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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:

propane-1,2-diol :

Partition coefficient: n-octanol/water : log Pow: -1.07

Amides, coco, N,N-bis(hydroxyethyl) :

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

propan-2-ol :

Partition coefficient: n-octanol/water : log Pow: 0.05

2,2',2''-nitrilotriethanol :

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

2,2'-iminodiethanol :

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

propane-1,2-diol :

Partition coefficient: n-octanol/water : log Pow: -1.07

Amides, coco, N,N-bis(hydroxyethyl) :

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

propan-2-ol :

Partition coefficient: n-octanol/water : log Pow: 0.05

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:

Additional ecological information : No data available

Components:

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Amides, coco, N,N-bis(hydroxyethyl) :

Additional ecological information : No data available

Amides, coco, N,N-bis(hydroxyethyl) :

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 (TDG) / Règlement Pour Le Transport (TMD): (Canada): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
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Transportation Regulation / Règlement Pour Le Transport: IMDG (Vessel): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation / Règlement Pour Le Transport: IATA (Cargo Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
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Transportation Regulation / Règlement Pour Le Transport: IATA (Passenger Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
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Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL
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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:

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



Signal word

Hazard statements

Precautionary statements

: **WarningWarning:**
: Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if swallowed.

: **Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection. **Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response: IF ON SKIN: Wash with plenty of water. 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 skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. **Response:** IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or

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concerned: Get medical advice/ attention. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse.

Storage: Store locked up.

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

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