Version 4.1

Revision Date 04/10/2020

Print Date 01/20/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP STRIP-EASE	
Material number	:	00000000000107124	
Manufacturer or supplier's details			
Company	:	Zep Inc.	
Address	:	350 Joe Frank Harris Parkway, SE Emerson, GA 30137	
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

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	colourless
Odour	solvent-like

GHS Classificatio	on
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Skin corrosion Serious eye damage	: Category 1 : Category 1
GHS label elements	
Hazard pictograms	Corrosion
Signal word	: Danger
Hazard statements	: H314 Causes severe skin burns and eye damage.
Precautionary statements	 Prevention: 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

Version 4.1

immediately all contaminated clothing. Rinse skin with water/shower.

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.

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-butoxyethanol	111-76-2	>= 30 - < 50
2-aminoethanol	141-43-5	>= 10 - < 20

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	 Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
In case of eye contact	 Small amounts splashed into eyes can cause irreversible tissue damage and blindness. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Protect unharmed eye.

ZEF SIRIF-EASE		
Version 4.1	Revision Date 04/10/2020	Print Date 01/20/2021
If swallowed	Keep eye wide open while rinsing. If eye irritation persists, consult as	specialist.
ii swalloweu	 Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. DO NOT induce vomiting unless directed to do so by a physician or poison control center. 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	s may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemica carbon dioxide.	al or
Unsuitable extinguishing media	High volume water jet	
Specific hazards during firefighting	Do not allow run-off from fire fighting to enter drains o courses.	or water
Hazardous combustion products	Carbon dioxide (CO2) Carbon monoxide Smoke Nitrogen oxides (NOx)	
Specific extinguishing methods	Use extinguishing measures that are appropriate to licitcumstances and the surrounding environment.	ocal
Further information	Collect contaminated fire extinguishing water separation must not be discharged into drains. Fire residues and contaminated fire extinguishing wa be disposed of in accordance with local regulations.	
Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefighti necessary.	ing if

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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Version 4.1	Revision Date 04/10/2020	Print Date 01/20/2021
	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 mater acid binder, universal binder, sawd Keep in suitable, closed containers	lust).

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	: Keep away from oxidizing agents and strongly acid or alkaline materials.

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	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0
		PEL	20 ppm 97 mg/m3	CAL PEL
2-aminoethanol	141-43-5	TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		TWA	3 ppm 8 mg/m3	NIOSH REL
		ST	6 ppm 15 mg/m3	NIOSH REL
		TWA	3 ppm 6 mg/m3	OSHA Z-1

Version 4.1

Revision Date 04/10/2020

Print Date 01/20/2021

STEL	6 ppm 15 mg/m3	OSHA P0
TWA	3 ppm 8 mg/m3	OSHA P0
PEL	3 ppm 8 mg/m3	CAL PEL
STEL	6 ppm 15 mg/m3	CAL PEL

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
2-BUTOXYETHANOL	111-76-2	Butoxyacetic acid (BAA)		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 equipme	ent	
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 Remarks	:	Protective gloves 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
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Colour

: colourless

Version 4.1

Revision Date 04/10/2020

Odour	: solvent-like
Odour Threshold	: No data available
рН	: 12.88
Melting point/freezing point	: No data available
Boiling point	: > 93.33 °C
Flash point	: > 93.3 °C Method: closed cup
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 19.31 hPa
Relative vapour density	: No data available
Density	: 0.993 g/cm3
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: Not applicable
Partition coefficient: n- octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: 8.4 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	: Acids Oxidizing agents
Hazardous decomposition products	: Carbon oxides

Version 4.1

Revision Date 04/10/2020

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects Aggravated Medical : None known. Condition 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-butoxvethanol 111-76-2 **OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens. 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. Acute toxicity Product: : Acute toxicity estimate : 2,197 mg/kg Acute oral toxicity Method: Calculation method : Acute toxicity estimate : 24.59 mg/l Acute inhalation toxicity Exposure time: 4 h Test atmosphere: vapour Method: Calculation method Acute dermal toxicity : Acute toxicity estimate : 2,391 mg/kg Method: Calculation method Components: 2-butoxyethanol: : LD50 Oral Rat: 880 mg/kg Acute oral toxicity Acute dermal toxicity : LD50 Dermal Rabbit: 1,060 mg/kg

Version 4.1

Revision Date 04/10/2020

Print Date 01/20/2021

LD50 Oral Rat: 1,515 mg/kg

Acute inhalation toxicity : LC50 Mouse: > 1.21 mg/l

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

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

No data available Persistence and degradability No data available Version 4.1

Revision Date 04/10/2020

Print Date 01/20/2021

Bioaccumulative potential

Product:	
Partition coefficient: n- octanol/water <u>Components:</u> 2-aminoethanol : Partition coefficient: n- octanol/water	 Remarks: No data available log Pow: -1.31
Mobility in soil	
No data available	
Other adverse effects	
No data available <u>Product:</u>	
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): UN3267, Corrosive liquid, basic, organic, n.o.s., (MONOETHANOLAMINE), 8, III - Limited quantity

Transportation Regulation: IMDG (Vessel): UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., (MONOETHANOLAMINE), 8, III - Limited quantity

Transportation Regulation: IATA (Cargo Air): UN3267, Corrosive liquid, basic, organic, n.o.s., (MONOETHANOLAMINE), 8, III - Limited quantity

Version 4.1

Revision Date 04/10/2020

Print Date 01/20/2021

Transportation Regulation: IATA (Passenger Air): UN3267, Corrosive liquid, basic, organic, n.o.s., (MONOETHANOLAMINE), 8, III - Limited quantity

Transportation Regulation: TDG (Canada): UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., (MONOETHANOLAMINE), 8, III - Limited quantity

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.

> No substances are subject to TSCA 12(b) export notification requirements.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
		(/	(103)
2,2'-iminodiethanol	111-42-2	100	*

*: 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	: Skin corrosion or irritation Serious eye damage or eye irrita	Skin corrosion or irritation Serious eye damage or eye irritation	
SARA 302	: No chemicals in this material are requirements of SARA Title III, S	, , ,	
SARA 313	: The following components are su established by SARA Title III, Se 2-butoxyethanol		
California Prop. 65			
	WARNING: This product can e including 2,2'-iminodiethanol, 1 which is/are known to the State		



e known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Version 4.1

Revision Date 04/10/2020

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

Further information

NFPA:

HEALTH	3
FLAMMABILITY	1
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme

HMIS III:



0 = not significant, 1 =Slight,

2 = Moderate, 3 = High 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Version 4.1	Revision Date 04/10/2020	Print Date 01/20/202
Hazard pictograms		
Signal word Hazard statements Precautionary statements	Corrosion Danger: Causes severe skin burns and eye damage.	
,	Prevention: Wash skin thoroughly after handling. Wea clothing/ eye protection/ face protection. Response: IF SWALLOWED: Rinse mouth. Do NOT in	
	hair): Take off immediately all contaminated clothing. F INHALED: Remove person to fresh air and keep comfor call a POISON CENTER/doctor. IF IN EYES: Rinse ca minutes. Remove contact lenses, if present and easy to Immediately call a POISON CENTER/doctor. Wash co reuse.	Rinse skin with water/shower. IF ortable for breathing. Immediately utiously with water for several o do. Continue rinsing.
	Disposal: Dispose of contents/container in accordance	e with local regulation.

Version:	4.1
Revision Date:	04/10/2020
Print Date:	01/20/2021

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