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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP HEAVY DUTY FLOOR STRIPPER 5GL
Material number	:	N50335
Manufacturer or supplier's d	leta	ails
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	:	CHEMTREC: 800-424-9300 - All Calls Recorded.
Emergency		In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

Recommended use : Floor Care

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	colourless, clear
Odour	characteristic

GHS Classification

Skin corrosion Serious eye damage	Category 1 Category 1	
GHS label elements		
Hazard pictograms		
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 NO induce vomiting. 	т



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	 P303 + P361 + P353 IF ON SKIN immediately all contaminated clot water/shower. P304 + P340 + P310 IF INHALEI and keep comfortable for breathin POISON CENTER/doctor. P305 + P351 + P338 + P310 IF I water for several minutes. Remov and easy to do. Continue rinsing. CENTER/doctor. P363 Wash contaminated clothin Disposal: P501 Dispose of contents/contair regulation. 	thing. Rinse skin with D: Remove person to fresh air ng. Immediately call a N EYES: Rinse cautiously with ve contact lenses, if present Immediately call a POISON g before reuse.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
2-butoxyethanol	111-76-2	>= 10 - < 20
2-aminoethanol	141-43-5	>= 5 - < 10
The superior and superior of displayed substances and		4

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

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 on skin, rinse well with water. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.
In case of eye contact	:	Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Rinse immediately with plenty of water for at least 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.



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Most important symptoms and effects, both acute and delayed	 Effects are immediate and delaye Symptoms may include blistering, Effects are dependent on exposur contact time). Causes severe skin burns and eye Review section 2 of SDS to see a 	irritation, burns, and pain. e (dose, concentration, e damage.
Notes to physician	: Treat symptomatically. Symptomatically.	s may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray jet Carbon dioxide (CO2) Alcohol-resistant foam Dry chemical
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 Specific extinguishing methods		Carbon dioxide (CO2) Carbon monoxide Smoke 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. Ensure adequate ventilation. Refer to protective measures listed in sections 7 and 8.
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.



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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. Provide sufficient air exchange and/or exhaust in work rooms. 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 Do not store near acids.

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
		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



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Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
2-BUTOXYETHANOL	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200.mg/g Creatinine	ACGIH BEI
Engineering measures	Engineering measures : effective ventilation in all processing areas					
Personal protective eq	uipment					
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	Er	: Tightly fitting safety goggles Ensure that eyewash stations and safety showers are close to the workstation location.				
Skin and body protection	Cł	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.				
Hygiene measures	W	hen using do n hen using do n ash hands befo	ot smoke.		d of workday.	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless, clear
Odour	: characteristic
Odour Threshold	: No data available
рН	: 12.5 - 13.0
Melting point/freezing point	: No data available
Boiling point	: 100 °C
Flash point	: > 93.3 °C Method: closed cup



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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	: 1.003 g/cm3	
Solubility(ies)		
Water solubility	: soluble	
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	: 5.3 mm2/s (20.0 °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

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	:	None known.
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).



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Carcinogenicity:			
IARC	No component of this product preser equal to 0.1% is identified as probab human carcinogen by IARC.		
ACGIH	Confirmed animal carcinogen with ur humans 2-butoxyethanol	nknown relevance to 111-76-2	
OSHA	No component of this product preser equal to 0.1% is on OSHA's list of re	nt at levels greater than or gulated 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.		
cute toxicity			
Product:			
Acute oral toxicity	: Acute toxicity estimate : 4,236 mg Method: Calculation method	J/kg	
Acute inhalation toxicity	: Acute toxicity estimate : 44.1 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method	I	
Acute dermal toxicity	: Acute toxicity estimate : 4,312 mg Method: Calculation method	J/kg	

Components:

2-butoxyethanol: Acute oral toxicity	: LD50 Oral Rat: 880 mg/kg
Acute dermal toxicity	: LD50 Dermal Rabbit: 1,060 mg/kg
2-aminoethanol: Acute oral toxicity	: LD50 Oral Mouse: 700 mg/kg
	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:



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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 Bioaccumulative potential

Product:

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

Mobility in soil

No data available

Other adverse effects

No data available Product:

Regulation



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Remarks	Stratospheric Ozone - CAA Section 602 Class I Substances 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	: An environmental hazard cann event of unprofessional handlir aquatic life.	

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): UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IMDG (Vessel): UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IATA (Cargo Air): UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IATA (Passenger Air): UN3266, Corrosive liquid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: TDG (Canada): UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II

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.



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SECTION 15. REGULATORY INFORMATION

 TSCA list
 : The following substance(s) is/are subject to a Significant New Use Rule: Nonylphenol, ethoxylated

 9016-45-9

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

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

requirements.

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
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 irritation	
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: 2-butoxyethanol 111-76-2 14.9956 % 	
California Prop. 65		
	WARNING: This product can expose you to chemicals including 2,2'-iminodiethanol, naphthalene, which is/are known	



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

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

TSCA	On TSCA Inventory
DSL	All components of this product are on the Canadian DSL

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)



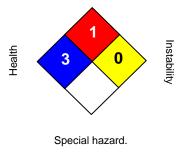
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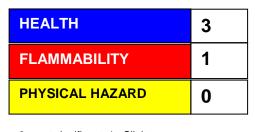
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SECTION 16. OTHER INFORMATION





HMIS III:



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

OSHA - GHS Label Information:

Hazard pictograms	
Signal word Hazard statements Precautionary statements	 Danger: Causes severe skin burns and eye damage. Prevention: Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. 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. Wash contaminated clothing before reuse.
	Disposal: Dispose of contents/container in accordance with local regulation.

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Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®,Zep Professional®, Enforcer®, National Chemical[™], Selig[™], Misty®, Next Dimension[™], Petro®, i-Chem®, TimeMist®, TimeWick[™], MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National[™], FC Forward Chemicals®,Rexodan®, Mykal[™], and a number of private labeled brands.