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SECTION 1 PRODUCT AND COMPANY IDENTIFICATION		

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP CONCENTRATED DRIVEWAY & CONCRETE CLEANER & DEGREASER 1GAL_4CT
Material number	:	ZUCON128
Manufacturer or supplier's o	leta	ils
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	:	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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	purple
Odour	ether-like

GHS Classification

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

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	induce vomiting.	
	P303 + P361 + P353 IF ON SKIN	l (or hair): Take off
	immediately all contaminated clo	thing. Rinse skin with
	water/shower.	-
	P304 + P340 + P310 IF INHALE	D: Remove person to fresh air
	and keep comfortable for breathir	ng. 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.

Storage:

P405 Store locked up.

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 [%]
Alcohols, C9-11, ethoxylated	68439-46-3	>= 3 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 3
sodium hydroxide	1310-73-2	>= 1 - < 3
Benzenesulfonic acid, mono-C10-16-alkyl derivs.,	68081-81-2	>= 1 - < 3
sodium salts		

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. Get medical attention immediately.
lf 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. If skin irritation persists, call a physician.

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	Remove contaminated clothing and Wash contaminated clothing before	
In case of eye contact	 Small amounts splashed into eyes of tissue damage and blindness. Rinse immediately with plenty of war for at least 15 minutes. Continue rinsing eyes during transp Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a splane. 	ater, also under the eyelids, port to hospital.
If swallowed	 Keep respiratory tract clear. Never give anything by mouth to an DO NOT induce vomiting unless dir physician or poison control center. Take victim immediately to hospital. Do not give milk or alcoholic bevera 	rected to do so by a
Most important symptoms and effects, both acute and delayed	 Effects are immediate and delayed. Symptoms may include blistering, in Effects are dependent on exposure contact time). Causes severe skin burns and eye Review section 2 of SDS to see all 	rritation, burns, and pain. (dose, concentration, damage.
Notes to physician	: Treat symptomatically. Symptoms	may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical Water spray jet Alcohol-resistant foam Carbon dioxide (CO2)
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 (CO2) Carbon monoxide Smoke
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. Standard procedure for chemical fires.

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Special protective equipment for firefighters	: Wear self-contained breathing apparation necessary.	tus for firefighting 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. 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	 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. Do not breathe vapours or spray mist. Take precautionary measures against static discharges. 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	Store and keep away from, oxidizing agents and 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	NIOSH REL
			24 mg/m3	

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	I.	TWA	50 nom	OSHA Z-1	
		IVVA	50 ppm 240 mg/m3	USHA 2-1	
		TWA	25 ppm 120 mg/m3	OSHA P0	
		PEL	20 ppm 97 mg/m3	CAL PEL	
sodium hydroxide	1310-73-2	С	2 mg/m3	ACGIH	
		С	2 mg/m3	NIOSH REL	
		TWA	2 mg/m3	OSHA Z-1	
		С	2 mg/m3	OSHA P0	
		С	2 mg/m3	CAL PEL	

Biological occupational exposure limits

Component	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	
2-BUTOXYE THANOL	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible	200.mg/g Creatinine	ACGIH BEI
				after exposure		
				ceases)		

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 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.

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Appearance	: liquid
Colour	: purple
Odour	: ether-like
Odour Threshold	: No data available
рН	: 13.5
Melting point/freezing point	: No data available
Boiling point	: 98.9 °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	: 1.0230 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	: 6.6 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	: Heat, flames and sparks.

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Incompatible materials	: Acids Oxidizing agents This product contains sodium hydr hydroxide that may corrode some with tin, zinc, aluminum to form hy	soft metals and may react
Hazardous decomposition products	: Carbon monoxide, carbon dioxide hydrocarbons (smoke).	and unburned

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Cond	avated Medical lition ptoms of Overexposure	 None known. Effects are immediate and delayed. Symptoms may include blistering, irritation, burns, and p 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.	
Carc	inogenicity:		
IARC		No component of this product present at levels greater than equal to 0.1% is identified as probable, possible or confirme human carcinogen by IARC.	
ACG	IH	Confirmed animal carcinogen with unknown relevance to humans 2-butoxyethanol 11	1-76-2
OSH	Α	No component of this product present at levels greater than equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP		No component of this product present at levels greater than equal to 0.1% is identified as a known or anticipated carcin by NTP.	
Acute tox	licity		
Prod	uct:		
Acut	e oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method	
Acut	e inhalation toxicity	: Acute toxicity estimate : > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method	
Acut	e dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg	

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	Method: Calculation method	
Components:		
Alcohols, C9-11, ethoxylate Acute oral toxicity	ed: : LD50 Oral Rat: 1,400 mg/kg	
2-butoxyethanol: Acute oral toxicity	: LD50 Oral Rat: 880 mg/kg	
Acute dermal toxicity	: LD50 Dermal Rabbit: 1,060 mg/kg	
sodium hydroxide: Acute dermal toxicity	: Acute toxicity estimate Rabbit: 1,3	50 mg/kg
Skin corrosion/irritation		
Product:		
Remarks: Extremely corrosiv	e and destructive to tissue.	
Serious eye damage/eye irritat	ion	
Product:		
Remarks: May cause irrevers	sible eye damage.	
Respiratory or skin sensitisatio	n	
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 availab	le	

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

<u>Components:</u> sodium hydroxide :		
Toxicity to fish	:	LC50 (Gambusia affinis (Mosquito fish)): 125 mg/l Exposure time: 96 h Test Method: static test
		LC50 (Oncorhynchus tshawytscha (chinook salmon)): 152 mg/l Exposure time: 96 h
		LC50 (Oncorhynchus mykiss (rainbow trout)): 40 mg/l Exposure time: 48 h
Toxicity to daphnia and other aquatic invertebrates		EC50 (Daphnia magna (Water flea)): 34 - 47 mg/l Exposure time: 48 h
		EC50 (Crangon crangon (shrimp)): 33 - 100 mg/l Exposure time: 48 h
Persistence and degradability		
No data available Bioaccumulative potential		
Product:		
Partition coefficient: n- octanol/water	:	Remarks: No data available
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).

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Additional ecological information	: Not applicable	
<u>Components:</u> sodium hydroxide :		
Additional ecological information	: Harmful to aquatic life.	
information <u>Components:</u> sodium hydroxide : Additional ecological		

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): 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.

SECTION 15. REGULATORY INFORMATION

TSCA list

: No substances are subject to a Significant New Use Rule.

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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	Calculated product RQ
		(lbs)	(lbs)
sodium hydroxide	1310-73-2	1000	*

*: 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 sub requirements of SARA Title III, Section	• •	rting
SARA 313	:	The following components are subject established by SARA Title III, Section 2-butoxyethanol		evels 2.9312 %
California Prop. 65				
		This product does not contain any California to cause cancer, birth de reproductive harm.		

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

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Further information

NFPA:

HEALTH	3
FLAMMABILITY	0
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:

Hazard pictograms	
Signal word	Corrosion
Signal word	: Danger:
Hazard statements	: Causes severe skin burns and eye damage.
Precautionary statements	· · · · · · · · · · · · · · · · · · ·
	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 (
	hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	INHALED: Remove person to fresh air and keep comfortable for breathing. Immediat
	call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for severa
	minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Immediately call a POISON CENTER/doctor. Wash contaminated clothing before
	reuse.
	Storage: Store locked up.

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