

Version 1.0 Revision Date 04/21/2015 Print Date 06/02/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP FOAMING GLASS CLEANER
Material number	:	ZUFGC19
Manufacturer or supplier's de	eta	ils
Company	:	Zep Inc.
Address	:	1310 Seaboard Industrial Blvd., NW Atlanta, GA 30318
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

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a liquefied gas
Colour	colourless
Odour	pleasant

GHS Classification

Gases under pressure	: Liquefied gas
GHS Label element	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: H280 Contains gas under pressure; may explode if heated.
Precautionary statements	 Storage: P410 + P403 Protect from sunlight. Store in a well-ventilated place. Disposal: P501 Dispose of contents/ container to an approved waste



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	disposal plant.	
Potential Health Effects		
Carcinogenicity:		
IARC	No component of this product present equal to 0.1% is identified as probable human carcinogen by IARC.	
ACGIH	Confirmed animal carcinogen with unl	
OSHA	2-butoxyethanol No component of this product present	at levels greater than or
	equal to 0.1% is identified as a carcino carcinogen by OSHA.	
NTP	No component of this product present equal to 0.1% is identified as a known by NTP.	0

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
ethanol	64-17-5	>= 1 - < 5
butane	106-97-8	>= 1 - < 5
propan-2-ol	67-63-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice	o not leave the victim unattended. ove out of dangerous area. now this safety data sheet to the doctor in a	ittendance.
lf inhaled	unconscious place in recovery position and lvice. onsult a physician after significant exposure	
In case of skin contact	skin irritation persists, call a physician. ash off immediately with plenty of water for nutes. on clothes, remove clothes.	at least 15
In case of eye contact	emove contact lenses. otect unharmed eye. eep eye wide open while rinsing. eye irritation persists, consult a specialist. nse immediately with plenty of water for at	least 15 minutes.
If swallowed	eep respiratory tract clear. ever give anything by mouth to an unconsc symptoms persist, call a physician.	ious person.



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		DO NOT induce vomiting unless di physician or poison control center. Take victim immediately to hospital	-
ECTION 5. FIREFIGHTING MEAS	SUI	RES	
Suitable extinguishing media	:	Water spray jet Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical	
Unsuitable extinguishing media	:	High volume water jet	
Specific hazards during firefighting	:	Do not allow run-off from fire fightin courses.	ng to enter drains or water
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Smoke	
Specific extinguishing methods	:	Use extinguishing measures that a circumstances and the surrounding	
Further information	:	Standard procedure for chemical fin Collect contaminated fire extinguish must not be discharged into drains. Fire residues and contaminated fire be disposed of in accordance with For safety reasons in case of fire, of separately in closed containments. Use a water spray to cool fully closed	hing water separately. This e extinguishing water must local regulations. cans should be stored

Special protective equipment : 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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	 Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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). Sweep up or vacuum up spillage and collect in suitable container for disposal.



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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. Always replace cap after use.
Conditions for safe storage	:	 BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. 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. Keep in a dry, cool and well-ventilated place.
Materials to avoid	:	Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
butane	106-97-8	TWA	800 ppm 1,900 mg/m3	NIOSH REL
		TWA	800 ppm 1,900 mg/m3	OSHA P0
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm	OSHA Z-1



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	1		980 mg/m3		
		TWA	400 ppm 980 mg/m3	OSHA P0	
		STEL	500 ppm 1,225 mg/m3	OSHA P0	
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	

Biological occupational exposure limits

Component	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	
PROPAN-2-OL	67-63-0	Acetone	Urine	End of	40 mg/l	ACGIH BEI
				shift at		
				end of workwee		
				workwee		
				n		

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 Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses
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	:	Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke. When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a liquefied ga	IS
Colour : colourless	
Odour : pleasant	
Odour Threshold : no data available	
pH : 10 - 11	

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Melting point/freezing point	: no data available	
Boiling point	: no data available	
Flash point	: no data available	
Evaporation rate	: no data available	
Upper explosion limit	: no data available	
Lower explosion limit	: no data available	
Vapour pressure	: no data available	
Relative vapour density	: no data available	
Density	: 0.986 g/cm3	
Solubility(ies)		
Water solubility	: soluble in cold water, soluble in hot	water
Partition coefficient: n- octanol/water	: no data available	
Auto-ignition temperature	: not determined	
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	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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



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	Method: Calculation method	
<u>Components:</u>		
ethanol:		
Acute oral toxicity	: LD50 Oral rat: 7,060 mg/kg	
Acute inhalation toxicity	: LC50 rat: 124.7 mg/l Exposure time: 4 h	
butane: Acute inhalation toxicity	: LC50 mouse: 1,237 mg/l Exposure time: 2 h	
	LC50 rat: 1,355 mg/l	
propan-2-ol: Acute oral toxicity	: LD50 Oral rat: 4,396 mg/kg Method: Calculation method	
Skin corrosion/irritation		
no data available		
Serious eye damage/eye irritati	on	
no data available		
Respiratory or skin sensitisation	n	
no data available		
Germ cell mutagenicity		
no data available		
Carcinogenicity		
no data available		
Reproductive toxicity		
no data available		
ethanol: butane: propan-2-ol:		
STOT - single exposure		
no data available		
STOT - repeated exposure		
no data available		
Aspiration toxicity		
no data available		
Further information		
Product:		

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Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available	
Persistence and degradability	
no data available Bioaccumulative potential	
Product:	
Partition coefficient: n- octanol/water <u>Components:</u> butane : Partition coefficient: n-	: Remarks: no data available : Pow: 2.89
octanol/water	
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. Send to a licensed waste management company.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.



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Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA): ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(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	: Sudden Release of Pressure Hazard
SARA 302	: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop 65 2,2'-iminodieth	WARNING! This product contains a chemical known to the State of California to cause cancer. nanol 111-42-2 WARNING: This product contains a chemical known to the

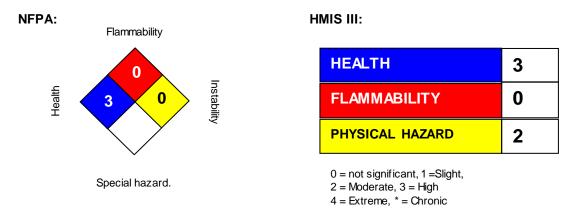


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	State of Ca harm.	lifornia to cause birth def	ects or other reproductive
	methanol		67-56-1
The componen	ts of this product are repo	rted in the following in	ventories:
TSCA	On TSCA Inventory		
DSL	This product contain		nents that are not on the
202	Canadian DSL nor	NDSL.	
AICS			
	Canadian DSL nor Not in compliance v Not in compliance v	vith the inventory	
AICS	Not in compliance v	<i>i</i> th the inventory <i>i</i> th the inventory	

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION





OSHA GHS Label Information:



Disposal: Dispose of contents/ container to an approved w aste disposal plant.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this



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document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

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.