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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP FOAMING GLASS CLEANER_2CS 190Z
Material number	:	ECZUFGC192
Manufacturer or supplier's	deta	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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification

Appearance	Aerosol containing a liquefied gas
Colour	colourless
Odour	pleasant

Gases under pressure	: Liquefied gas
GHS label elements	
Hazard pictograms	: Gas cylinder
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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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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
propane	74-98-6	>= 1 - < 5

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

SECTION 4. FIRST AID MEASURES

General advice	:	Do not leave the victim unattended. Move out of dangerous area. Show this safety data sheet to the doctor in attendance.		
lf inhaled	:	If unconscious, place in recovery position and seek medical advice. Consult a physician after significant exposure.		
In case of skin contact	:	If skin irritation persists, call a physician. 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.		
Most important symptoms and effects, both acute and delayed	:	Effects may be delayed, symptoms may include minor eye or skin irritation. Overexposure may cause mild eye or skin irritation.		
Notes to physician	:	Treat symptomatically. Symptoms may be delayed.		

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray jet
		Alcohol-resistant foam
		Carbon dioxide (CO2)
		Dry chemical

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Unsuitable extinguishing media	: High volume water jet		
Specific hazards during firefighting	: Do not allow run-off from fire figh courses.	nting to enter drains or water	
Hazardous combustion products	: Carbon dioxide (CO2) Carbon monoxide Smoke		
Specific extinguishing methods	: Use extinguishing measures that circumstances and the surroundi		
Further information	: Standard procedure for chemical Collect contaminated fire extingu- must not be discharged into drai Fire residues and contaminated be disposed of in accordance with For safety reasons in case of fire separately in closed containment Use a water spray to cool fully contained	uishing water separately. This ns. fire extinguishing water must th local regulations. e, cans should be stored ts.	
Special protective equipment for firefighters	: Wear self-contained breathing a necessary.	pparatus for firefighting if	

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.

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.

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	Provide sufficient air exchange and Dispose of rinse water in accordanc regulations. Always replace cap after use.	
Conditions for safe storage	 BEWARE: Aerosol is pressurized. A exposure and temperatures over 50 or throw into fire even after use. Do red-hot objects. Keep container tightly closed in a diplace. Observe label precautions. Electrical installations / working mat the technological safety standards. Keep in a dry, cool and well-ventilated) °C. Do not open by force not spray on flames or ry and well-ventilated terials must comply with
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
		STEL	1,000 ppm	ACGIH
		PEL	1,000 ppm 1,900 mg/m3	CAL PEL
butane	106-97-8	TWA	800 ppm 1,900 mg/m3	NIOSH REL
		TWA	800 ppm 1,900 mg/m3	OSHA P0
		PEL	800 ppm 1,900 mg/m3	CAL PEL
		STEL	1,000 ppm	ACGIH
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 980 mg/m3	OSHA Z-1
		TWA	400 ppm 980 mg/m3	OSHA P0
		STEL	500 ppm 1,225 mg/m3	OSHA P0

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		PEL	400 ppm 980 mg/m3	CAL PEL
		STEL	500 ppm 1,225 mg/m3	CAL PEL
propane	74-98-6	TWA	1,000 ppm 1,800 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,800 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,800 mg/m3	OSHA P0
		PEL	1,000 ppm 1,800 mg/m3	CAL PEL

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		
				k		

Engineering measures	: effective ventilation in all processing areas	
Personal protective equipme	nt	
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	: Eye wash bottle with pure water 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 gas
Colour	: colourless
Odour	: pleasant

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Odour Threshold	: No data available	
рH	: 10 - 11	
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 ho	t 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

Potential Health Effects

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Aggravated Medical Condition	: None known.	
Symptoms of Overexposure	 Effects may be delayed, symptoms skin irritation. Overexposure may cause mild eye Treat symptomatically. Symptoms 	e or skin irritation.
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 un humans ethanol 2-butoxyethanol	known relevance to 64-17-5 111-76-2
OSHA	No component of this product present equal to 0.1% is on OSHA's list of reg	t at levels greater than or
NTP	No component of this product present equal to 0.1% is identified as a known by NTP.	t at levels greater than or
Acute toxicity		
Product:		
Acute oral toxicity	: Acute toxicity estimate : > 5,000 m Method: Calculation method	g/kg
Components:		
ethanol: Acute oral toxicity	: LD50 Oral Rat: 7,060 mg/kg	
Acute inhalation toxicity	: LC50 Rat: 124.7 mg/l Exposure time: 4 h Test atmosphere: vapour	
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 irritatio	n	
No data available		
Respiratory or skin sensitisation		
No data available		
Germ cell mutagenicity		
No data available		
Carcinogenicity		

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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- octanol/water	: Remarks: No data available
<u>Components:</u> ethanol :	
Partition coefficient: n- octanol/water	: Remarks: No data available
butane :	
Partition coefficient: n-	: Pow: 2.89
octanol/water	
propan-2-ol:	
Partition coefficient: n- octanol/water	: log Pow: 0.05
Mobility in soil	
No data available	

No data available

Other adverse effects

No data available <u>Product:</u>

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Regulation	40 CFR Protection of Environm Stratospheric Ozone - CAA Sec	
Remarks	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	: 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. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IMDG (Vessel): UN1950, AEROSOLS, 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

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

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: No substances are subject to a Signifi	cant New Use Rule.
No substances are subject to TSCA 1 requirements.	2(b) export notification
ning and Community Right-to-Know Act	
ntity	
ain any components with a CERCLA RQ.	
rdous Substances Reportable Quantity	
ain any components with a section 304 EHS	S RQ.
: Gases under pressure	
: No chemicals in this material are subjuct requirements of SARA Title III, Sectio	
: This material does not contain any ch known CAS numbers that exceed the reporting levels established by SARA	threshold (De Minimis)
This product does not contain any c California to cause cancer, birth defe reproductive harm.	
	 No substances are subject to a Signific No substances are subject to TSCA 1 requirements. ning and Community Right-to-Know Act netity ain any components with a CERCLA RQ. ardous Substances Reportable Quantity ain any components with a section 304 EHS Gases under pressure No chemicals in this material are subjective requirements of SARA Title III, Section This material does not contain any changen contain any changen by SARA This product does not contain any component of the section by SARA

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:



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



Warning:

Signal word Hazard statements Precautionary statements

Storage: Protect from sunlight. Store in a well-ventilated place.

Contains gas under pressure; may explode if heated.

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