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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP GLASS CLEANER_20N19_12CT		
Material number	:	0000000001048254		
Manufacturer or supplier's details				
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 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

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	>= 3 - < 5
butane	106-97-8	>= 1 - < 3
propan-2-ol	67-63-0	>= 1 - < 3
propane	74-98-6	>= 1 - < 3

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 are immediate and delayed. Effects are dependent on exposure (dose, concentration, contact time). Overexposure may cause mild eye or skin irritation. Review section 2 of SDS to see all potential hazards.
Notes to physician	:	Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical or
	carbon dioxide.

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Unsuitable extinguishing media	: High volume water jet	
Specific hazards during firefighting	: Do not allow run-off from fire fighting courses.	to enter drains or water
Hazardous combustion products	: Carbon dioxide (CO2) Carbon monoxide Smoke	
Specific extinguishing methods	: Use extinguishing measures that are circumstances and the surrounding e	
Further information	: Standard procedure for chemical fire Collect contaminated fire extinguishin must not be discharged into drains. Fire residues and contaminated fire be disposed of in accordance with lo For safety reasons in case of fire, ca separately in closed containments. Use a water spray to cool fully close	ng water separately. This extinguishing water must ocal regulations. ans should be stored
Special protective equipment for firefighters	: Wear self-contained breathing appar necessary.	atus 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. Keep away from direct surexposure 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
		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
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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		
		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. 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

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Colour	: colourless	
Odour	: pleasant	
Odour Threshold	: No data available	
рН	: 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 hot	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

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Potential Health Effects		
Aggravated Medical Condition	: None known.	
Symptoms of Overexposure	 Effects are immediate and delayed Effects are dependent on exposure contact time). Overexposure may cause mild eye Review section 2 of SDS to see all Treat symptomatically. Symptoms 	e (dose, concentration, e or skin irritation. potential hazards.
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	64-17-5
OSHA	2-butoxyethanol No component of this product present equal to 0.1% is on OSHA's list of reg	
NTP	No component of this product present equal to 0.1% is identified as a known by NTP.	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	on	
No data available		
Respiratory or skin sensitisation		

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

Mobility in soil

No data available

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Other adverse effects		
No data available Product:		
Regulation	40 CFR Protection of Environme Stratospheric Ozone - CAA Sect Substances	
Remarks	This product neither contains, no with a Class I or Class II ODS as Clean Air Act Section 602 (40 CF + B).	defined by the U.S.
Additional ecological information	: No data available	

SECTION 13. DISPOSAL CONSIDERATIONS

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, 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

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 : 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

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	Gases under pressure	
SARA 302	lo chemicals in this material are subject to the equirements of SARA Title III, Section 302.	reporting
SARA 313	his material does not contain any chemical connown CAS numbers that exceed the threshold eporting levels established by SARA Title III, s	d (De Minimis)
California Prop. 65		
	This product does not contain any chemicals California to cause cancer, birth defects, or a 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:



0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme

HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2

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

Contains gas under pressure; may explode if heated.

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

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