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SECTION 1. PRODUCT ANI	COMPANY IDENTIFICATION	
Material name	: ZEP ICE MELT 20N16 12CT	
Material number	: 0000000000017601	
Manufacturer or suppli	er's details	

Company	:	Zep Inc.
Address	:	350 Joe Frank Harris Parkway, SE Emerson, GA 30137

Telephone : Compliance Services - 877-428-9937

Emergency telephone nu	mbe	rs
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	Aerosol containing a compressed gas
Colour	colourless
Odour	strong

GHS Classification

Flammable aerosols Gases under pressure Eye irritation	: Category 1 : Compressed gas : Category 2A
GHS label elements	
Hazard pictograms	Flame Gas cylinder Exclamation mark
Signal word	: Danger
Hazard statements	 H222 Extremely flammable aerosol. H280 Contains gas under pressure; may explode if heated. H319 Causes serious eye irritation.
Precautionary statements	 Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source.

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	P251 Pressurized container: Do not	pierce or burn, even after
	use.	
	P264 Wash skin thoroughly after ha	ndling.
	P280 Wear eye protection/ face prot	tection.
	Response:	
	P305 + P351 + P338 IF IN EYES: R	inse cautiously with water
	for several minutes. Remove contac	-
	easy to do. Continue rinsing.	
	P337 + P313 If eye irritation persists	s: Get medical advice/
	attention.	
	Storage:	
	P410 + P412 Protect from sunlight.	Do not expose to
	temperatures exceeding 50 °C/ 122	
	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 [%]
ethanol	64-17-5	>= 70 - < 90
ethane-1,2-diol	107-21-1	>= 20 - < 30
carbon dioxide	124-38-9	>= 3 - < 5

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 skin irritation persists, call a physician. If on skin, rinse well with water.
In case of eye contact	 Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
If swallowed	: Keep respiratory tract clear. Never give anything by mouth to an unconscious person.

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	If symptoms persist, call a physicial If swallowed, DO NOT induce vomit so by medical personnel.	
Most important symptoms and effects, both acute and delayed	: Effects are immediate and delayed. Symptoms may include irritation, re Causes serious eye irritation. Review section 2 of SDS to see all	dness, pain, and rash.
Notes to physician	: Treat symptomatically. Symptoms	may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: 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 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	 For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
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. 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 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). Sweep up or vacuum up spillage and collect in suitable

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container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	 Do not breathe vapours or spray mist. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. 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. Avoid exposure - obtain special instructions before 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. No smoking. Keep in a dry, cool and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
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
ethane-1,2-diol	107-21-1	С	50 ppm 125 mg/m3	OSHA P0
		C (Aerosol only)	100 mg/m3	ACGIH
		C (Vapour)	40 ppm 100 mg/m3	CAL PEL
carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH

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		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m3	NIOSH REL
		ST	30,000 ppm 54,000 mg/m3	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m3	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m3	OSHA P0
		STEL	30,000 ppm 54,000 mg/m3	OSHA P0
		PEL	5,000 ppm 9,000 mg/m3	CAL PEL
		STEL	30,000 ppm 54,000 mg/m3	CAL PEL
Engineering measures	: effective	e ventilation in a	Il processing areas	
Demonstrative emilia				
Personal protective equipr	nent			
Respiratory protection	ventilatio	on is provided o	on unless adequate loc r exposure assessment in recommended expos	t demonstrates
Hand protection	ventilation that exp	on is provided o posures are with	r exposure assessment	t demonstrates
	ventilation that exp : Protecti : The suit	on is provided o posures are with we gloves tability for a spe	r exposure assessment	t demonstrates ure guidelines.
Hand protection Material	ventilation that exp : Protecti : The sum with the : Tightly f	ive gloves tability for a spe producers of th fitting safety gog	r exposure assessment in recommended expos cific workplace should to re protective gloves.	t demonstrates ure guidelines. De discussed
Hand protection Material Remarks	 ventilation that exp Protecti The sum with the Tightly for Wear far problem Impervice Choose 	ive gloves tability for a spe producers of th fitting safety gog ace-shield and p is.	r exposure assessment in recommended expos cific workplace should to be protective gloves.	t demonstrates oure guidelines. be discussed nal processing nt and

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a compressed gas
Colour	: colourless
Odour	: strong
Odour Threshold	: No data available
рН	: Not applicable
Melting point/freezing point	: Not applicable

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Boiling point	: Not applicable	
Flash point	: Not applicable	
Evaporation rate	: >1	
Flammability (solid, gas, liquid)	: Extremely flammable aerosol.	
Upper explosion limit	: Not applicable	
Lower explosion limit	: Not applicable	
Vapour pressure	: 27 hPa (20 °C)	
Relative vapour density	: No data available	
Density	: 0.84 g/cm3	
Solubility(ies)		
Water solubility	: soluble	
Partition coefficient: n- octanol/water	: No data available	
Auto-ignition temperature	: not determined	
Thermal decomposition	: No data available	
Viscosity		
Viscosity, kinematic	: No data available	
Heat of combustion	: > 20 kJ/g	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon dioxide (CO2) Carbon monoxide Organic Substances

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SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects Aggravated Medical : None known. Condition Symptoms of Overexposure : Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Causes serious eye irritation. Review section 2 of SDS to see all potential hazards. Treat symptomatically. Symptoms may be delayed. **Carcinogenicity:** IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Confirmed animal carcinogen with unknown relevance to ACGIH humans ethanol 64-17-5 **OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated 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. Acute toxicity Product: : Acute toxicity estimate : 2,099 mg/kg Acute oral toxicity Method: Calculation method Components: ethanol: Acute oral toxicity : LD50 Oral Rat: 7,060 mg/kg : LC50 Rat: 124.7 mg/l Acute inhalation toxicity Exposure time: 4 h Test atmosphere: vapour ethane-1,2-diol: : Acute toxicity estimate Rat: 500 mg/kg Acute oral toxicity Method: Converted acute toxicity point estimate Remarks: The acute toxicity estimate (ATE) value of 500 mg/kg has been assigned for GHS classification. LD50 values for oral toxicity on rats are reported in the literature to be > 4000 mg/kg, however rats can metabolize appreciable amounts of this chemical, while toxic effects on humans occur

at much lower dosages.

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Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

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

ZEP ICE MELT ZUN16	1261	
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octanol/water <u>Components:</u> ethanol : Partition coefficient: n- octanol/water ethane-1,2-diol : Partition coefficient: n- octanol/water	: Remarks: No data available : Pow: 1.36	
Mobility in soil		
No data available		
Other adverse effects		
No data available Product:		
Regulation	40 CFR Protection of Environm Stratospheric Ozone - CAA Sec Substances	,
Remarks	This product neither contains, r with a Class I or Class II ODS a Clean Air Act Section 602 (40 0 + B).	as defined by the U.S.
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, FLAMMABLE, 2.1, - Limited quantity

Transportation Regulation: IMDG (Vessel): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity

Transportation Regulation: IATA (Cargo Air): UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity

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Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, FLAMMABLE, 2.1, - Limited quantity

Transportation Regulation: TDG (Canada): UN1950, AEROSOLS, FLAMMABLE, 2.1, - 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

 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

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ethane-1,2-diol	107-21-1	5000	*

*: 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	: Flammable (gases, aerosols, liquids, or solids) Gases under pressure 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: ethane-1,2-diol 107-21-1 23.8203 %
California Prop. 65	
	WARNING: This product can expose you to chemicals including ethane-1,2-diol, which is/are known to the State of



WARNING: This product can expose you to chemicals including ethane-1,2-diol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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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

Further information

NFPA:

HEALTH	2
FLAMMABILITY	4
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme

HMIS III:

HEALTH	2
FLAMMABILITY	4
PHYSICAL HAZARD	3

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

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Hazard pictograms		
Signal w ord Hazard statements	Flame Gas cylinder Exclamation mark : Danger: : Extremely flammable aerosol. Contains gas under press	ure; may explode if heated.
Precautionary statements	Causes serious eye irritation. Prevention: Keep aw ay from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash skin thoroughly after handling. Wear eye protection/face protection. Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove	
	contact lenses, if present and easy to do. Continue rinsin medical advice/attention. Storage: Protect fromsunlight. Do not expose to temper °F. Disposal: Dispose of contents/container in accordance	ng. If eye irritation persists: Get ratures exceeding 50 °C/ 122

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