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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEPRESERVE AERO
Material number	:	00000000000009500
Manufacturer or supplier's o	leta	lils
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

Recommended use : Lubricant

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a compressed gas
Colour	amber, brown
Odour	oily, solvent-like

GHS Classification

Flammable aerosols Gases under pressure Skin irritation Eye irritation Skin sensitisation Carcinogenicity Specific target organ toxicity - single exposure		Category 1 Compressed gas Category 2 Category 2A Category 1 Category 1B Category 3 (Central nervous system)
GHS label elements		
Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H222 Extremely flammable aerosol. H280 Contains gas under pressure; may explode if heated. H315 Causes skin irritation.



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	H317 May cause an allergic sk H319 Causes serious eye irrita H336 May cause drowsiness o H350 May cause cancer.	ition.
Precautionary statements	 Prevention: P201 Obtain special instruction P202 Do not handle until all sat and understood. P210 Keep away from heat, ho and other ignition sources. No s P211 Do not spray on an open P251 Pressurized container: Do use. P261 Avoid breathing dust/ fur P264 Wash skin thoroughly afte P271 Use only outdoors or in a P272 Contaminated work clothin the workplace. P280 Wear eye protection/ face P280 Wear protective gloves. P281 Use personal protective of Response: P302 + P352 IF ON SKIN: Was P304 + P340 + P312 IF INHAL and keep at rest in a position of POISON CENTER or doctor/ pi P305 + P351 + P338 IF IN EYE for several minutes. Remove of easy to do. Continue rinsing. P308 + P313 IF exposed or con attention. P333 + P313 If skin irritation or advice/ attention. P362 Take off contaminated clot Storage: P410 + P412 Protect from sun temperatures exceeding 50 °C/ P403 Store in a well-ventilated Disposal: P501 Dispose of contents/contar regulation. 	fety precautions have been reactions surfaces, sparks, open flame smoking. flame or other ignition source o not pierce or burn, even after ne/ gas/ mist/ vapours/ spray. er handling. a well-ventilated area. ing should not be allowed out e protection. equipment as required. sh with plenty of soap and wat .ED: Remove victim to fresh ai omfortable for breathing. Call a hysician if you feel unwell. ES: Rinse cautiously with water ontact lenses, if present and ncerned: Get medical advice/ r rash occurs: Get medical ersists: Get medical advice/ othing and wash before reuse. light. Do not expose to / 122 °F. place.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
trichloroethylene	79-01-6	>= 30 - < 50



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	un un intello	04744 44 0	
Distillates (petroleum), straight-ru		64741-44-2	>= 20 - < 30
Distillates (petroleum), hydrotrea	ted heavy	64742-52-5	>= 10 - < 20
naphthenic			
2-ethylhexan-1-ol		104-76-7	>= 5 - < 10
2-(2-butoxyethoxy)ethanol		112-34-5	>= 1 - < 3
carbon dioxide		124-38-9	>= 1 - < 3
Linseed oil		8001-26-1	>= 1 - < 3
carbon dioxide		124-38-9 8001-26-1	>= 1 - < 3 >= 1 - < 3

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 : Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice. In case of skin contact : Wash off with soap and water. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes. Wash contaminated clothing before re-use. If symptoms persist, call a physician. In case of eye contact : Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. If in eyes, rinse with water for 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 : Effects are immediate and delayed. and effects, both acute and Effects are dependent on exposure (dose, concentration, delayed contact time). Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness. Symptoms may include irritation, redness, pain, and rash. Chronic effects are delayed and symptoms may not be observed during an exposure. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause cancer. Review section 2 of SDS to see all potential hazards. : Treat symptomatically. Symptoms may be delayed. Notes to physician

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SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray jet	
Unsuitable extinguishing media	High volume water jet	
Specific hazards during firefighting	Do not allow run-off from fire fighting to enter drains or wat courses.	ter
Hazardous combustion products	Carbon dioxide (CO2) Carbon monoxide Smoke Chlorine compounds Silicon oxides	
Specific extinguishing methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
Further information	Collect contaminated fire extinguishing water separately. T must not be discharged into drains. Fire residues and contaminated fire extinguishing water m be disposed of in accordance with local regulations. 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.	

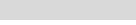
SECTION 6. ACCIDENTAL RELEASE MEASURES

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 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. 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. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Always replace cap after use. Do not breathe vapours or spray mist.
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. Observe label precautions. Keep in a dry, cool and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	: Oxidizing agents Store and keep away from bases and alkalies.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
trichloroethylene	79-01-6	TWA	10 ppm	ACGIH
		STEL	25 ppm	ACGIH
		TWA	100 ppm	OSHA Z-2
		CEIL	200 ppm	OSHA Z-2
		Peak	300 ppm	OSHA Z-2
		TWA	50 ppm 270 mg/m3	OSHA P0
		STEL	200 ppm 1,080 mg/m3	OSHA P0
		STEL	100 ppm 537 mg/m3	CAL PEL
		С	300 ppm	CAL PEL
		PEL	25 ppm 135 mg/m3	CAL PEL
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m3	OSHA Z-1



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		TWA (Inhalable fraction)	5 mg/m3	ACGIH	
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction and vapor)	10 ppm	ACGIH	
carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH	
		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	
Linseed oil	8001-26-1	TWA (mist - total)	10 mg/m3	NIOSH REL	
		TWA (mist - respirable)	5 mg/m3	NIOSH REL	
		PEL (Total dust)	10 mg/m3	CAL PEL	
		PEL (respirable dust fraction)	5 mg/m3	CAL PEL	

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
TRICHLOROETHENE	79-01-6	Trichloroace tic acid	Urine	End of shift at end of workwee k	15 mg/l	ACGIH BEI
TRICHLOROETHENE		Trichloroeth anol	In blood	End of shift at end of workwee k	0.5 mg/l	ACGIH BEI
TRICHLOROETHENE		Trichloroeth ylene	In end- exhaled air	End of shift at end of workwee k		ACGIH BEI

Engineering measures : effective ventilation in all processing areas

Personal protective equipment



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Respiratory protection	: Use respiratory protection unless a ventilation is provided or exposure that exposures are within recomme	assessment demonstrates
Hand protection Material Remarks	Protective glovesThe suitability for a specific workpla with the producers of the protective	
Eye protection	 Tightly fitting safety goggles Wear face-shield and protective su problems. Ensure that eyewash stations and s the workstation location. 	
Skin and body protection	: Impervious clothing Choose body protection according concentration of the dangerous sub	
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at t	he end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a compressed gas
Colour	: amber, brown
Odour	: oily, solvent-like
Odour Threshold	: No data available
	No data available
рН	: Not applicable
Melting point/freezing point	: No data available
Boiling point	: Not applicable
Flash point	:
	Not applicable
Evaporation rate	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1.085 g/cm3
Solubility(ies)	



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Water solubility	: insoluble	
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, dynamic	: No data available	
Viscosity, kinematic	: No data available	
Heat of combustion	: 22 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	: Oxidizing agents Amines Bases Aluminium
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Phosgene

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	:	None known.
Symptoms of Overexposure	:	Effects are immediate and delayed.
		Effects are dependent on exposure (dose, concentration, contact time).
		Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness.
		Symptoms may include irritation, redness, pain, and rash. Chronic effects are delayed and symptoms may not be
		chief the checke are delayed and cymptome may not be



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	observed during an exposure.	
Carcinogenicity:		
IARC	Group 1: Carcinogenic to humans	
ACGIH	trichloroethylene Suspected human carcinogen	79-01-6
OSHA	trichloroethylene No component of this product present a equal to 0.1% is on OSHA's list of regu	
NTP	Known to be human carcinogen	lated calentegene.
	trichloroethylene	79-01-6
Acute toxicity		
Product:		
Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg Method: Calculation method	/kg
Acute inhalation toxicity	: Acute toxicity estimate : 85.71 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method	
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg Method: Calculation method	/kg
Components:		
trichloroethylene: Acute oral toxicity	: LD50 Oral Rat: 4,920 mg/kg	
Acute inhalation toxicity	: LC50 Mouse: 8450 ppm Exposure time: 4 h	
Acute dermal toxicity	: LD50 Dermal Rabbit: > 20,000 mg/k	¢g
Distillates (petroleum), hyd	rotreated heavy naphthenic:	
Acute oral toxicity	: LD50 Rat: > 5,000 mg/kg	
Acute inhalation toxicity	: LC50 Rat: > 5 mg/l Exposure time: 4 h	
Acute dermal toxicity	: LD50 Rabbit: > 5,000 mg/kg	
2-ethylhexan-1-ol: Acute oral toxicity	: LD50 Oral Rat: 3,730 mg/kg	
Acute dermal toxicity	: LD50 Dermal Rabbit: > 3,000 mg/kg)



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Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Causes sensitisation.

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



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Product:		
Partition coefficient: n- octanol/water <u>Components:</u> trichloroethylene :	: Remarks: No data available	
Partition coefficient: n- octanol/water 2-ethylhexan-1-ol :	: log Pow: 2.29	
Partition coefficient: n- octanol/water 2-(2-butoxyethoxy)ethanol :	: Pow: 2.9	
Partition coefficient: n- octanol/water	: Pow: 1	
Mobility in soil		
No data available		
Other adverse effects		
No data available <u>Product:</u>		
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 Cl + B).	defined by the U.S.
Additional ecological information	: No data available	
mornation	No data available An environmental hazard cannot event of unprofessional handling aquatic life with long lasting effec	or disposal., Harmful to

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 The product should not be allowed to enter drains, water courses or the soil. 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.



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SECTION 14. TRANSPORT INFORMATION

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

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

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

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.

 The following substance(s) is/are subject to TSCA 12(b) export notification requirements: trichloroethylene
 79-01-6

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
trichloroethylene	79-01-6	100	227

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 Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitisation
		Carcinogenicity Specific target organ toxicity (single or repeated exposure)



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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:		evels
	trichloroethylene	79-01-6	44 %
	2-(2-butoxyethoxy)ethanol	112-34-5	2.955 %
	2-butoxyethanol	111-76-2	0.045 %

California Prop. 65



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

The components of this product are reported in the following inventories:

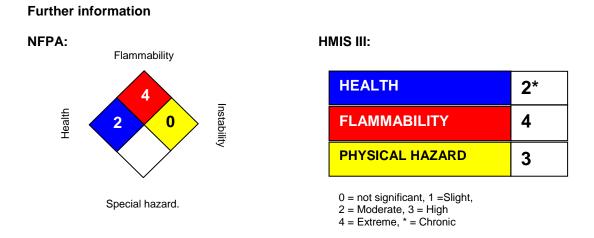
DSL	All components of this product are on the Canadian DSL
TSCA	On TSCA Inventory

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



OSHA - GHS Label Information:



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Hazard pictograms		
Signal word	: Danger:	•
Hazard statements	 Extremely flammable aerosol. Contains gas under press Causes skin irritation. May cause an allergic skin reaction May cause drowsiness or dizziness. May cause cancer. 	on. Causes serious eye irritation.
Precautionary statements	:	
	 Prevention: Obtain special instructions before use. Do precautions have been read and understood. Keep awa sparks, open flames and other ignition sources. No smooth flame or other ignition source. Pressurized container: Du use. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spin handling. Use only outdoors or in a well-ventilated area. should not be allowed out of the workplace. Wear eye p protective gloves. Use personal protective equipment at Response: IF ON SKIN: Wash with plenty of soap and victim to fresh air and keep at rest in a position comforta POISON CENTER or doctor/ physician if you feel unwe with water for several minutes. Remove contact lenses, Continue rinsing. IF exposed or concerned: Get medica irritation or rash occurs: Get medical advice/ attention. I medical advice/ attention. Take off contaminated clothin Storage: Protect from sunlight. Do not expose to tempe °F. Store in a well-ventilated place. 	ay from heat, hot surfaces, oking. Do not spray on an open o not pierce or burn, even after ray. Wash skin thoroughly after . Contaminated work clothing protection/ face protection. Wear s required. water. IF INHALED: Remove able for breathing. Call a II. IF IN EYES: Rinse cautiously if present and easy to do. I advice/ attention. If skin f eye irritation persists: Get og and wash before reuse. eratures exceeding 50 °C/ 122

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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.