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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP ORANGEL_20L

Material number : 981747C

Manufacturer or supplier's details				
Company	:	Zep Inc.		
Address	:	11627 - 178 Street Edmonton, Alberta T5S 1N6 Canada		
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 Emergency	:	CHEMTREC: 800-424-9300 - All Calls Recorded.

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	viscous, gel
Colour	amber, yellow
Odour	like fruit

GHS Classification

Flammable liquids Skin irritation Serious eye damage Skin sensitisation	: Category 3 : Category 2 : Category 1 : Sub-category 1B
GHS label elements	
Hazard pictograms	: Flame Corrosion Exclamation mark
Signal word	: Danger

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Hazard statements	 H226 Flammable liquid and vapou H315 Causes skin irritation. H317 May cause an allergic skin H318 Causes serious eye damage 	reaction.
Precautionary statements	 Prevention: P210 Keep away from heat, hot s and other ignition sources. No sm P233 Keep container tightly close P240 Ground and bond container P241 Use explosion-proof electric equipment. P242 Use non-sparking tools. P243 Take action to prevent stati P261 Avoid breathing dust/ fume/ P264 Wash skin thoroughly after P272 Contaminated work clothing the workplace. P280 Wear protective gloves/ pro protection/ face protection. Response: P303 + P361 + P353 IF ON SKIN immediately all contaminated clot P305 + P351 + P338 + P310 IF IN water for several minutes. Removi and easy to do. Continue rinsing. CENTER/doctor. P333 + P313 If skin irritation or ra advice/ attention. P362 + P364 Take off contaminati reuse. P370 + P378 In case of fire: Use alcohol-resistant foam to extinguis Storage: P403 + P235 Store in a well-ventil Disposal: P501 Dispose of contents/contain regulation. 	hoking. ed. and receiving equipment. cal/ventilating/ lighting c discharges. gas/ mist/vapours/ spray. handling. g should not be allowed out of tective clothing/ eye l (or hair): Take off thing. Rinse skin with water. N EYES: Rinse cautiously with e contact lenses, if present Immediately call a POISON ash occurs: Get medical ted clothing and wash it before dry sand, dry chemical or sh. lated place. Keep cool.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
Distillates (petroleum), hydrotreated light	64742-47-8	>= 30 - < 60
d-limonene	5989-27-5	>= 30 - < 60
Alcohols, C9-11, ethoxylated	68439-46-3	>= 1 - < 5
Alcohols, C12-16, ethoxylated	68551-12-2	>= 1 - < 5
propylene carbonate	108-32-7	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Consult a physician. 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. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.
In case of eye contact	 Small amounts splashed into eyes can cause irreversible tissue damage and blindness. Rinse immediately with plenty of water for at least 15 minutes. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	 Keep respiratory tract clear. Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	 Effects are immediate and delayed. Symptoms may include blistering, irritation, burns, and pain. Effects are dependent on exposure (dose, concentration, contact time). Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. 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	: 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 wate courses.

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Hazardous combustion products	: Carbon dioxide (CO2) Carbon monoxide Smoke Nitrogen oxides (NOx)
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	 Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must 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. 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	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	 Avoid formation of aerosol. Do not breathe vapours or spray mist. 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.
	Open drum carefully as content may be under pressure. To avoid spills during handling keep bottle on a metal tray. 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

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	be employed in any process in whi used.	ich this mixture is being
Conditions for safe storage	 No smoking. Keep container tightly closed in a oplace. Containers which are opened muskept upright to prevent leakage. Observe label precautions. Electrical installations / working mathematical safety standards 	t be carefully resealed and aterials must comply with
Materials to avoid	: No materials to be especially ment	tioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated light	64742-47-8	TWA	200 mg/m3 (As total hydrocarbon vapour)	CA BC OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	CA AB OEL

s : effective ventilation in all processing areas

Personal protective equipment		
Respiratory protection	:	In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection Material	:	Protective gloves
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles with pure water.
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	:	When using do not eat or drink. When using do not smoke.

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Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	viscous, gel
Colour	:	amber, yellow
Odour	:	like fruit
Odour Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Boiling point	:	174 °C
Flash point	:	54 °C Method: TCC
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	:	0.844 g/cm3
Solubility(ies)		
Water solubility	:	emulsifiable
Solubility in other solvents	:	not determined
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity		
Viscosity, kinematic	:	> 40 mm2/s (40 °C)
	•	

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.

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Incompatible materials	: Oxidizing agents	
Hazardous decomposition products	: No hazardous decomposition prod	ucts are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects Aggravated Medical	: None known.
Condition	
Symptoms of Overexposure	 Effects are immediate and delayed. Symptoms may include blistering, irritation, burns, and pain. Effects are dependent on exposure (dose, concentration, contact time). Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. 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.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Acute toxicity	
Product:	
Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : 4,797 mg/kg Method: Calculation method
Components:	
Distillates (petroleum), hydr Acute oral toxicity	otreated light: : LD50 Rat: > 5,000 mg/kg
Acute inhalation toxicity	: LC50 Rat: > 4.6 mg/l Exposure time: 6 h

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Acute dermal toxicity	: LD50 Rat: > 2,000 mg/kg	
d-limonene: Acute oral toxicity	: LD50 Oral Rat: 4,400 mg/kg	
Acute dermal toxicity	: LD50 Dermal Rabbit: > 5,000 mg/kg	
Alcohols, C9-11, ethoxylated: Acute oral toxicity	: LD50 Oral Rat: 1,400 mg/kg	
Skin corrosion/irritation		
Product:		
Remarks: Irritating to skin.		
Serious eye damage/eye irritation		
Product: Remarks: May cause irreversible		
Temarks. May cause meversion	e eye damage.	
Respiratory or skin sensitisation		
Product:		
Remarks: Causes sensitisation.		

Components:

d-limonene:

Classification: May cause sensitisation by skin contact.

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:

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Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available	
Persistence and degradability	
No data available Bioaccumulative potential	
Components: d-limonene : Partition coefficient: n- octanol/water propylene carbonate : Partition coefficient: n- octanol/water	: log Pow: 4.232 : Pow: 0.41
Mobility in soil	
No data available	
Other adverse effects	
No data available <u>Product:</u>	
Additional ecological information	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life.

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.

SECTION 14. TRANSPORT INFORMATION

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Transportation Regulation (TDG) / Règlement Pour Le Transport (TMD): (Canada): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation / Règlement Pour Le Transport: IMDG (Vessel): UN1993, FLAMMABLE LIQUID, N.O.S., (D-LIMONENE), 3, III

Transportation Regulation / Règlement Pour Le Transport: IATA (Cargo Air): UN1993, Flammable liquid, n.o.s., (D-LIMONENE), 3, III

Transportation Regulation / Règlement Pour Le Transport: IATA (Passenger Air): UN1993, Flammable liquid, n.o.s., (D-LIMONENE), 3, III

Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

The product as delivered to the customer conforms to packaging requirements for shipment by road under Transport Dangerous Goods (TDG) Canada 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

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

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

DSLThis product contains one or more components that are listed on the
Canadian NDSL. All other components are on the Canadian DSL.TSCAOn 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

WHMIS - GHS Label Information:

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Hazard pictograms	Flame Corrosion Exclamation mark
Signal word	: Danger:
Hazard statements	: Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin
The area of a content of	reaction. Causes serious eye damage.
Precautionary statements	
	 Prevention: Keep aw ay from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Contaminated w ork clothing should not be allow ed out of the w orkplace. Wear protective gloves/protective clothing/eye protection/face protection. Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w ith w ater. IF IN EYES: Rinse cautiously w ith water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and w ash it before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Storage: Store in a w ell-ventilated place. Keep cool. Disposal: Dispose of contents/container in accordance with local regulation.

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