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Print Date 06/29/2016

Zepinc

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP 45 NC
Material number	:	0000000000014901
Manufacturer or supplier's d	eta	ils
Company	:	Zep Inc.
Address	:	1310 Seaboard Industrial Blvd., NW Atlanta, GA 30318
Telephone	:	404-352-1680

Emergency telephone nur	mbe	rs
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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

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

GHS Classification

Flammable aerosols Gases under pressure Skin irritation Eye irritation Skin sensitisation Carcinogenicity Reproductive toxicity	 Category 1 Compressed gas Category 2 Category 2A Category 1 Category 1A Category 2
GHS Label element	
Hazard pictograms	
Signal word	: Danger

Hazard statements

: H222 Extremely flammable aerosol. H280 Contains gas under pressure; may explode if heated.

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H350 May cause cancer.
- H361 Suspected of damaging fertility or the unborn child.

NTP



71-43-2

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Precautionary statements	 Prevention: P201 Obtain special instructions & P202 Do not handle until all safety and understood. P210 Keep away from heat, hot s and other ignition sources. No sm P211 Do not spray on an open fla P251 Pressurized container: Do n use. P261 Avoid breathing dust/ fume/ P264 Wash skin thoroughly after I P272 Contaminated work clothing the workplace. P280 Wear eye protection/ face p P280 Wear protective gloves. P281 Use personal protective equ Response: P302 + P352 IF ON SKIN: Wash (P305 + P351 + P338 IF IN EYES) for several minutes. Remove cont easy to do. Continue rinsing. P308 + P313 IF exposed or conce attention. P333 + P313 If skin irritation or ra advice/ attention. P337 + P313 If eye irritation persi attention. P362 Take off contaminated cloth Storage: P405 Store locked up. P410 + P412 Protect from sunligh temperatures exceeding 50 °C/ 12 Disposal: P501 Dispose of contents/contain regulation. 	y precautions have been in urfaces, sparks, open flam noking. Ime or other ignition source not pierce or burn, even af gas/ mist/ vapours/ spray handling. I should not be allowed out protection. upment as required. with plenty of soap and w. Rinse cautiously with wa act lenses, if present and erned: Get medical advice sh occurs: Get medical sts: Get medical advice/ ning and wash before reus ant. Do not expose to 22 °F.
Potential Health Effects		
Carcinogenicity:		
IARC	Group 2B: Possibly carcinogenic to h cumene Group 1: Carcinogenic to humans	umans 98-82
ACGIH	benzene No component of this product present equal to 0.1% is identified as a carcin carcinogen by ACGIH. Confirmed human carcinogen	-
OSHA	benzene OSHA specifically regulated carcinog	71-43 en
NTD	benzene	71-43

Known to be human carcinogen

benzene

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 10 - < 20
Distillates (petroleum), hydrotreated light	64742-47-8	>= 10 - < 20
ethanol	64-17-5	>= 5 - < 10
Distillates (petroleum), straight-run middle	64741-44-2	>= 5 - < 10
1,2,4-trimethylbenzene	95-63-6	>= 5 - < 10
mesitylene	108-67-8	>= 5 - < 10
1,2,3-trimethylbenzene	526-73-8	>= 5 - < 10
2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5
carbon dioxide	124-38-9	>= 1 - < 5
pentyl acetate	628-63-7	>= 1 - < 5
2-methylbutyl acetate	624-41-9	>= 1 - < 5
toluene	108-88-3	>= 0.1 - < 1
benzene	71-43-2	>= 0.1 - < 1

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.
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. Wash contaminated clothing before re-use.
In case of eye contact	:	Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If swallowed	:	Keep respiratory tract clear. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

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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 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	:	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. 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.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling

: Avoid exposure - obtain special instructions before use.

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	 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. 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. Do not breathe vapours or spray mist. Always replace cap after use. 	
Conditions for safe storage	 BEWARE: Aerosol is pressurized. Kee exposure and temperatures over 50 °C or throw into fire even after use. Do not red-hot objects. No smoking. Keep in a dry, cool and well-ventilated Observe label precautions. Electrical installations / working materia the technological safety standards. 	Do not open by force spray on flames or 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
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m3	ACGIH
Distillates (petroleum), hydrotreated light	64742-47-8	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
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
1,2,4-trimethylbenzene	95-63-6	TWA	25 ppm 125 mg/m3	NIOSH REL
mesitylene	108-67-8	TWA	25 ppm 125 mg/m3	NIOSH REL



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1,2,3-trimethylbenzene	526-73-8	TWA	25 ppm 125 mg/m3	NIOSH REL
carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm	NIOSH REL
			9,000 mg/m3	
		ST	30,000 ppm	NIOSH REL
			54,000 mg/m3	
		TWA	5,000 ppm	OSHA Z-1
			9,000 mg/m3	
		TWA	10,000 ppm	OSHA P0
			18,000 mg/m3	
		STEL	30,000 ppm	OSHA P0
			54,000 mg/m3	
pentyl acetate	628-63-7	TWA	100 ppm	NIOSH REL
. ,			525 mg/m3	
		TWA	100 ppm	OSHA Z-1
			525 mg/m3	
		TWA	100 ppm	OSHA P0
			525 mg/m3	
2-methylbutyl acetate	624-41-9	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
xylenes	1330-20-7	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
cumene	98-82-8	TWA	50 ppm	ACGIH
		TWA	50 ppm	NIOSH REL
			245 mg/m3	
		TWA	50 ppm	OSHA Z-1
			245 mg/m3	
		TWA	50 ppm	OSHA P0
			245 mg/m3	
benzene	71-43-2	TWA	0.5 ppm	ACGIH
		STEL	2.5 ppm	ACGIH
		TWA	0.1 ppm	NIOSH REL
		ST	1 ppm	NIOSH REL
		TWA	10 ppm	OSHA Z-2
		CEIL	25 ppm	OSHA Z-2
		Peak	50 ppm	OSHA Z-2
		PEL	1 ppm	OSHA CAR
		STEL	5 ppm	OSHA CAR

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
METHYLBENZENE	108-88-3	Toluene	In blood	Prior to last shift of workwee k	0.02 mg/l	ACGIH BEI
METHYLBENZENE		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI



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METHYLBENZENE		o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g	ACGIH BEI
Remarks: Creatinine				· · ·	•	
benzene	71-43-2	S- Phenylmerc apturic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/g	ACGIH BEI
Remarks: Creatinine						
benzene		t,t-Muconic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.5 mg/g	ACGIH BE
Remarks: Creatinine	1	1		, ,	1	1

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 Remarks		The suitability for a specific workplace should be discussed
I CHIMINS	•	with the producers of the protective gloves.
Eye protection	:	Ensure that eyewash stations and safety showers are close to the workstation location. 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	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a compressed gas
Colour	: amber
Odour	: solvent-like

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Odour Threshold	: no data available	
рH	: not applicable	
Melting point/freezing point	: no data available	
Boiling point	: 179.44 °C	
Flash point	: no data available	
Evaporation rate	: <1 n-Butyl Acetate = 1.0	
Upper explosion limit	: no data available	
Lower explosion limit	: no data available	
Vapour pressure	: not determined	
Relative vapour density	: no data available	
Density	: 0.845 g/cm3	
Solubility(ies)		
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, kinematic	: no data available	
Heat of combustion	: 36.09 kJ/g	

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.
reactions	Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: Carbon monoxide Carbon dioxide (CO2)

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity <u>Product:</u>	
Acute inhalation toxicity	: Acute toxicity estimate : > 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Components:	
Distillates (petroleum), hydro Acute oral toxicity	treated heavy naphthenic: : 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
ethanol: Acute oral toxicity	: LD50 Oral rat: 7,060 mg/kg
Acute inhalation toxicity	: LC50 rat: 124.7 mg/l Exposure time: 4 h

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

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Distillates (petroleum), hydrotreated heavy naphthenic: Distillates (petroleum), hydrotreated light: ethanol: Distillates (petroleum), straight-run middle: 1,2,4-trimethylbenzene: mesitylene: 1,2,3-trimethylbenzene: 2-(2-butoxyethoxy)ethanol: carbon dioxide: pentyl acetate: 2-methylbutyl acetate: toluene: benzene:

STOT - single exposure

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information

Product:

Remarks: no data available

Remarks: no data available

Components:

Distillates (petroleum), hydrotreated light: 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
Components:	
2-(2-butoxyethoxy)ethanol :	
Partition coefficient: n-	: Pow: 1
octanol/water	
pentyl acetate :	

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Partition coefficient: n- octanol/water toluene : Partition coefficient: n- octanol/water	: log Pow: 2.3 : Pow: 2.73	
Mobility in soil		
no data available		
Other adverse effects		
no data available Product:		
Regulation Remarks	40 CFR Protection of Environment Stratospheric Ozone - CAA Section Substances This product neither contains, nor with a Class I or Class II ODS as of Clean Air Act Section 602 (40 CFI + B).	on 602 Class I was manufactured defined by the U.S.
Additional ecological information	 no data available An environmental hazard cannot be event of unprofessional handling of aquatic life with long lasting effect 	or disposal., Toxic to
<u>Components:</u> Distillates (petroleum), hydro	otreated light :	
Additional ecological information	: no data available	

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

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

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

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
benzene	71-43-2	10	*

*: 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	: Acute Health Hazard Fire Hazard Sudden Release of Pressure Hazard Chronic Health Hazard	ard	
SARA 302	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:		
	1,2,4-trimethylbenzene	95-63-6	5.8366 %
	benzene	71-43-2	0.199 %
California Prop 65	WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.		
toluene		108-88-3	
benzene		71-43-2	
The components of this proc	duct are reported in the following i	inventories:	
	SCA Inventory		

TSCAOn TSCA InventoryDSLThis product contains one or several components that are not on the

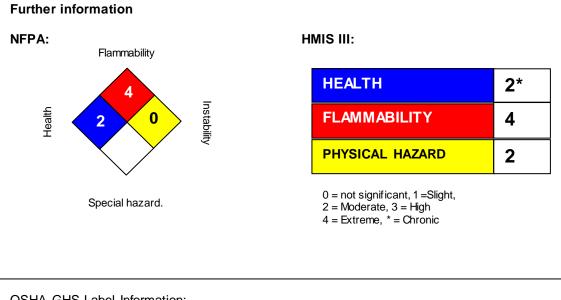


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AICS NZIOC PICCS IECSC	Canadian DSL nor NDSL. Not in compliance with the inventory Not in compliance with the inventory Not in compliance with the inventory Not in compliance with the inventory	

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION



: Danger:
 Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause cancer. Suspected of damaging fertility or the unborn child.
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep aw ay fromheat, 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. 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 eye protection/face protection. Wear protective gloves. Use personal protective equipment as required.
Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Storage: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Disposal: Dispose of contents/container in accordance with local regulation.



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