Safety Data Sheet

Zep, Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
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Section 1. Chemical Product and Company Identification

Product name ZEP 45 NC AEROSOL

Product use Aerosol Lubricant & Penetrant

Product code 0149

Date of issue 01/27/12 **Supersedes** 09/15/11

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

2	3	0

DANGER!

FLAMMABLE LIQUID AND VAPOR. CONTENTS UNDER PRESSURE. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. HARMFUL IF INHALED OR SWALLOWED.

Vapor may cause flash fire. Do not smoke. Eliminate all ignition sources.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry Dermal contact. Eye contact. Inhalation.

Eyes Severely irritating to eyes. Risk of serious damage to eyes. Inflammation of the eye is characterized by redness, watering and itching.

Skin Severely irritating to the skin. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation Irritating to respiratory system. Can cause dizziness, light-headedness, headache, nausea and blurred vision. Can cause central nervous system (CNS) depression.

Ingestion Unlikely in this form. Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects

Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, mucous membranes, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea, nose/sinuses, testes, throat.

Carcinogenicity

Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ethylbenzene	A3	2B	-	-	-	-

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	10 - 20
Petroleum distillates; mineral spirits; White spirits	8052-41-3	10 - 20
Solvent naphtha (petroleum), light arom.	64742-95-6	10 - 20
ethanol	64-17-5	5 - 15
Distillates (petroleum), straight-run middle	64741-44-2	1 - 10
1,2,4-trimethylbenzene	95-63-6	1 - 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
ethylbenzene	100-41-4	1 - 5

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.

Skin Contact Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Not available.

Flammable Limits Not available.

Flammability Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
FLAMMABLE.

Fire hazard Flammable aerosol. Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst or explode. Gas may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Bursting aerosol containers may be propelled from a fire at high speed.

Fire-Fighting Procedures Use an extinguishing agent suitable for the surrounding fire. Cool containers with water jet in order to prevent pressure build-up, auto-ignition or explosion. Fire-fighters should wear appropriate protective equipment.

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Store and use away from heat, sparks, open flame or any other ignition source. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Observe label precautions. Wash contaminated clothing before reusing. Wash thoroughly after handling.

Storage CONTENTS UNDER PRESSURE. Eliminate all ignition sources. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name	Exposure limits
Distillates (petroleum), hydrotreated heavy naphthenic	**ACGIH TLV (United States, 2/2010).** TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction **NIOSH REL (United States, 6/2009).** TWA: 5 mg/m³ 10 hour(s). Form: Mist STEL: 10 mg/m³ 15 minute(s). Form: Mist **OSHA PEL (United States, 6/2010).** TWA: 5 mg/m³ 8 hour(s).
Petroleum distillates; mineral spirits; White spirits	**ACGIH TLV (United States, 2/2010).** TWA: 100 ppm 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 350 mg/m³ 10 hour(s). CEIL: 1800 mg/m³ 15 minute(s). **OSHA PEL (United States, 6/2010).** TWA: 500 ppm 8 hour(s).
ethanol	**ACGIH TLV (United States, 2/2010).** STEL: 1000 ppm 15 minute(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 1000 ppm 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 1000 ppm 10 hour(s). **OSHA PEL (United States, 6/2010).** TWA: 1000 ppm 8 hour(s).
1,2,4-trimethylbenzene	**ACGIH TLV (United States, 2/2010).** TWA: 25 ppm 8 hour(s). TWA: 123 mg/m³ 8 hour(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 25 ppm 8 hour(s). TWA: 125 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 25 ppm 10 hour(s). TWA: 125 mg/m³ 10 hour(s).
Carbon dioxide	**ACGIH TLV (United States, 2/2010).**

	TWA: 5000 ppm 8 hour(s). STEL: 30000 ppm 15 minute(s). **NIOSH REL (United States, 6/2009).** TWA: 5000 ppm 10 hour(s). STEL: 30000 ppm 15 minute(s). **OSHA PEL (United States, 6/2010).** TWA: 5000 ppm 8 hour(s).
pentyl acetate	**NIOSH REL (United States, 6/2009).** TWA: 100 ppm 10 hour(s). TWA: 525 mg/m³ 10 hour(s). **ACGIH TLV (United States, 2/2010).** TWA: 50 ppm 8 hour(s). STEL: 100 ppm 15 minute(s). **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hour(s). TWA: 525 mg/m³ 8 hour(s).
2-methylbutyl acetate	**ACGIH TLV (United States, 2/2010).** TWA: 50 ppm 8 hour(s). STEL: 100 ppm 15 minute(s).
ethylbenzene	**ACGIH TLV (United States, 2/2010).** TWA: 20 ppm 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 100 ppm 10 hour(s). STEL: 125 ppm 15 minute(s). **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hour(s). TWA: 435 mg/m³ 8 hour(s).

Personal Protective Equipment (PPE)

Eyes Safety glasses.

Body For prolonged or repeated handling, use gloves.
Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves.

Respiratory Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]
pH Not applicable.
Boiling Point 179.44°C (355°F)
Specific Gravity 0.845
Solubility Insoluble in the following materials: cold water and hot water.

Color Amber.
Odor Sweetish. Solvent-like.
Vapor Pressure Not determined.
Vapor Density Not determined.
Evaporation Rate <1 (water = 1)

VOC (Consumer) 49.95% or 422.1 g/l [ISO 11890-1]

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials.

Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Hazardous Decomposition Products carbon oxides (CO, CO_2)

Section 11. Toxicological Information

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
Solvent naphtha (petroleum), light arom.	LD50 Oral	Rat	8400 mg/kg	-
Distillates (petroleum), straight-run middle	LC50 Inhalation Vapor	Rat	1700 mg/m3	4 hours
ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m3	4 hours
	LD50 Oral	Rat	7 g/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m3	4 hours
	LD50 Oral	Rat	5 g/kg	-
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Section 12. Ecological Information

Environmental Effects Not determined.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
ethanol	-	Acute LC50 25500 ug/L Marine water	Crustaceans - Brine shrimp - Artemia franchiscana - Larvae	48 hours
1,2,4-trimethylbenzene	-	Acute LC50 4910 ug/L Marine water	Crustaceans - Scud - Elasmopus pectinicrus - Adult	48 hours
	-	Acute LC50 7720 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 34 days	96 hours
2-(2-butoxyethoxy)ethanol	-	Acute LC50 1300000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 33 to 75 mm	96 hours
pentyl acetate	-	Acute LC50 65000 ug/L Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
ethylbenzene	-	Acute EC50 4600 ug/L Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	72 hours
	-	Acute EC50 2930 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 4200 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D001
Classification: Hazardous waste
Origin: RCRA waste.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	Not available.	Consumer commodity	ORM-D	-	
IMDG Class	Not determined.	-	-	-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:

Product name

1,2,4-trimethylbenzene
2-(2-butoxyethoxy)ethanol
ethylbenzene

Clean Water Act (CWA) 307: ethylbenzene; benzene

Clean Water Act (CWA) 311: ethylbenzene; pentyl acetate; benzene

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.
TSCA 8(a) PAIR: pentyl acetate
TSCA 8(a) IUR: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

State Regulations

California Prop 65

WARNING: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.:
ethylbenzene; benzene
California prop. 65 (no significant risk level):
ethylbenzene: 41 µg/day (ingestion), 54 µg/day (inhalation);
benzene: 6.4 µg/day (ingestion), 13 µg/day (inhalation)
California prop. 65 (Maximum Acceptable Dosage Level):
benzene: 24 µg/day (ingestion), 49 µg/day (inhalation)

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.*