



Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP 45
Product Use Aerosol Lubricant
Product Code 0174
Date of issue 10/04/05 **Supersedes** 01/06/03

Emergency For MSDS Information:
Telephone Numbers Technical Services Group
 Zep Manufacturing of Canada
 Telephone: (780) 453-8100 (Business Hours 8:00-5:00)

For a Medical or Transportation Emergency:
 CANUTEC (24 Hours)
 (613) 996-6666 - Call Collect

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Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Toxicity Data			
TRICHLOROETHYLENE; acetylene trichloride; 1-chloro-2,2-dichloroethylene	79-01-6	30 - 60	LD50 Rat	Oral	4920 mg/kg	
			LD50 Mouse	Oral	2402 mg/kg	
			LD50 Rabbit	Dermal	29800 mg/kg	
			LC50 Mouse	Inhalation	12500 ppm (4 hour(s))	
PARAFFIN OIL; blend of heavy and light naphthenic petroleum distillate	64742-52-5	10 - 30	Not available.	Not available.	Not available.	Not available.
MINERAL SEAL OIL; mineral oil; petrolatum	64741-77-1	5 - 10	Not available.	Not available.	Not available.	Not available.
BLEND OF AMYL ACETATE; 3-METHYL BUTYL ACETATE	628-63-7; 123-92-2;	1 - 5	Not available.	Not available.	Not available.	Not available.
2-METHYL BUTYL ACETATE	624-41-9		Not available.	Not available.	Not available.	Not available.
CARBON DIOXIDE	124-38-9	1 - 5	Not available.	Not available.	Not available.	Not available.
DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbit	112-34-5	1 - 5	LD50 Rat	Oral	5660 mg/kg	
			LD50 Mouse	Oral	2400 mg/kg	
			LD50 Rabbit	Dermal	2700 mg/kg	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Dermal contact. Inhalation. Ingestion.

Skin Hazardous in case of skin contact (irritant, permeator). Non-sensitizer for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Liquid in eye may cause irritation with possible damage if not rinsed immediately.

Inhalation Hazardous in case of inhalation. Vapors and aerosol can produce mucous membrane, nose and throat irritation. Can cause central nervous system depression. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness, and nausea, and may lead to unconsciousness or death. Medical Conditions Aggravated by Overexposure: Respiratory, Heart (Cardiac).

Ingestion Aspiration hazard if swallowed- can enter lungs and cause damage.

Chronic Effects

Repeated or prolonged exposure to the substance can produce damage to liver, kidneys and central nervous system. Defatting to the skin. Prolonged skin contact may cause dermatitis with drying and cracking of skin.

Additional information : See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact Wash affected area with soap or mild detergent and water. Remove contaminated clothing and shoes. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Wash clothing before reuse.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Aspiration hazard if swallowed- can enter lungs and cause damage. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point	Not applicable.	Flammable Limits	Not applicable
Flammability	Not considered to be flammable. (CSMA)		
Auto-ignition Temperature	Not applicable.		
Fire-Fighting Procedures	Use dry chemical or CO ₂ . Wear special protective clothing and positive pressure, self-contained breathing apparatus.		
Fire Hazard	Avoid all possible sources of ignition (spark or flame). Vapor may cause fire.		
Products of Combustion	Hydrogen Chloride (HCl), Chlorine and Phosgene Gas.		
Explosion hazard	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No specific information is available in our data base regarding the product's risks of explosion in the presence of various materials.		

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Wash thoroughly after handling. Wash contaminated clothing before reusing.
Storage	Keep container in a cool, well-ventilated area. Do not store above 49°C (120.2°F). Do not puncture or incinerate. Keep away from heat and direct sunlight. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes Safety glasses.

Hands and Body Chemical resistant gloves. Neoprene gloves. Nitrile gloves. Natural rubber (latex)

Respiratory Avoid breathing vapors or spray mists. Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Protective Clothing (Pictograms)**Exposure Limits**

Name of Hazardous Ingredients	CAS #	Exposure Limits
Trichloroethylene	79-01-6	ACGIH TLV (United States). TWA: 50 ppm 8 hour(s). STEL: 100 ppm 15 minute(s). OSHA PEL (United States). TWA: 50 ppm 8 hour(s). STEL: 200 ppm 15 minute(s).
Paraffin Oil	64742-52-5	OSHA PEL (United States). TWA: 5 mg/m ³ 8 hour(s). Form: Mist ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hour(s). Form: Mist
Mineral Seal Oil	64741-77-1	OSHA PEL (United States). : 5 mg/m ³ 8 hour(s). Form: Mist ACGIH TLV (United States). : 5 ppm 8 hour(s). Form: Mist
Blend of amyl acetate, 3-methyl butyl acetate, & 2-methyl butyl acetate	628-63-7; 123-92-2; 624-41-9	OSHA PEL (United States). TWA: 100 ppm 8 hour(s). ACGIH TLV (United States). TWA: 50 ppm 8 hour(s). STEL: 100 ppm 15 minute(s).
Diethylene Glycol Monobutyl Ethe	112-34-5	Manufacturer (United States). TWA: 35 ppm 8 hour(s)

[Consult local authorities for acceptable exposure limits.](#)

Section 9. Physical and Chemical Properties

Physical State	Aerosol. (Oily liquid.)	Color	Clear. Brown.
pH	Not applicable.	Odor	Sweet. (Strong.)
Boiling Point	189°C (372.2°F)	Vapor Pressure	Not available.
Freezing Point	Not available.	Vapor Density	Not available.
Specific Gravity	1.095 (Water = 1)	Evaporation Rate	<1 compared to Carbon tetrachloride
Solubility	Insoluble in cold water, hot water.	VOC (Consumer)	50.0% 551 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Avoid contact with strong oxidizers, excessive heat, sparks or open flame.
Reactivity	Will not occur.
Hazardous Decomposition Products	Hydrogen Chloride (HCl), Chlorine and Phosgene Gas.

Section 11. Toxicological Information

Carcinogenic Effects	Classified + (Proven.) by OSHA [Trichloroethylene]. Classified 2A (Probable for human) by IARC, and Group 2 (Reasonably Anticipated To Be Human Carcinogens) by NTP [Trichloroethylene].
Reproductive Effects	Not available.
Mutagenic Effects	Not available.
Teratogenic Effects	Not available.


Section 12. Ecological Information

Ecotoxicity	Not available.
Biodegradable/OECD	Not available.

Section 13. Disposal Considerations

Waste Information	Consult your local or regional authorities. Waste must be disposed according to applicable regulations.	Waste Stream	Not available.
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Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
TDG Classification			Limited Quantity			

Limited Quantity: Small quantities of controlled goods are not regulated as Dangerous Goods according to the TDG regulations.

Section 15. Regulatory Information

WHMIS (Canada)	Class A: Compressed gas. Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class D-2B: Material causing other toxic effects (TOXIC).
Other Regulations	Not available.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the available information required by the CPR.

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.*