

MATERIAL SAFETY DATA SHEET

Trade Name: ZAK Diesel Engine Oil Cleaner
MSDS NO. DF302
Revision Date: 10/10/2003
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: ZAK Diesel Engine Oil Cleaner
Chemical Family: PETROLEUM HYDROCARBON OIL
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300

Supplier: Zak Products, 3006 Skyway Circle South, Irving, TX 75038

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient/CAS No.	wt. %	OSHA PEL TWA	OSHA PEL Ceiling Limits	ACGIH TLV TWA	ACGIH TLW STEL
Solvent Refined Light Paraffinic Distillate 64741-89-5	80-90	5 mg/m3	None Established	5 mg/m3	None Established
Glycol Ether EB 111-76-2	10-20	50 ppm	Not Determined	20 ppm	Not Determined

3. HAZARDS IDENTIFICATION

Emergency Overview: Danger: Harmful or fatal if liquid is aspirated into lungs. Harmful or fatal if swallowed. This material is an eye and skin irritant. Harmful if absorbed through the skin. Keep away from heat, sparks, and flame.

HMIS Classification: Health: 2* Flammability: 2 Reactivity: 0
NFPA Rating: Health: 3 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Ingestion: DO NOT INDUCE VOMITING. Give nothing by mouth. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Pulmonary aspiration hazard if swallowed and/oil vomiting occurs - can enter lungs and cause damage.

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

Skin Contact: Wash with soap and water. Remove contaminated clothing and shoes, and launder before reuse. If irritation persists or signs of toxicity occur, seek medical attention. If product is injected into or under the skin, or into any part of the body, the individual should be evaluated immediately by a physician as a surgical emergency.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point °F(°C): >250 F

Flash Point Method: COC

Flammable Limits in Air - Lower (%): Not Determined

Flammable Limits in Air - Upper (%): Not Determined

Autoignition Temperature °F(°C): 600 F Estimated

Extinguishing Media: Foam. Water. Dry chemical. Carbon dioxide.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Forms peroxides of unknown stability classified as combustible.

Hazardous Combustion Products: Fumes and Smoke. Carbon Monoxide. Aldehydes. Carbon Dioxide. . Asphyxiants. Forms peroxides of unknown stability.

Aerosol Comments: Not Applicable

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact. Do not ingest.

Spill Procedures: Contain any liquid from leaking containers. Keep away from heat sparks and flames.

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Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Increase area ventilation. Absorb spills on inert material such as perlite, vermiculite, sand or dirt. Place in double polyethylene bags. Isolate from other waste materials.

Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters.

7. HANDLING AND STORAGE

Handling and Storage: Keep container closed when not in use. Avoid contact with skin and eyes. Use only in a well ventilated area. Keep away from heat and open flame. Keep away from food and smoking materials. Wash hands before eating and smoking. Do Not Swallow.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Showers. Eyewash stations. Use local exhaust.
Eyes: Wear safety glasses or goggles to protect against exposure.
Skin Protection: Use chemical resistant gloves for prolonged skin contact. Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking and when leaving work.
Respiratory Protection: Use in a well ventilated area. Use approved NIOSH respiratory protection if TLV exceeded..... Or over exposure is likely.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless to light yellow liquid	pH Value:	Not Determined
Odor:	MILD PETROLEUM	Vapor Density (Air=1):	9
Vapor Pressure:	Not Determined	Melting/Freezing Point:	Not determined.
Boiling Point (°F):	>300 F	Bulk Density at 20°C:	Not Determined
Solubility in Water:	<15%	Evaporation Rate:	Not Determined
Molecular Weight:	Mixture	Specific Gravity (H2O=1):	.86 @ 60 F
Viscosity:	60 SUS @ 100 F	Decomposition Temperature:	Not Known
VOC Content(%):	Not determined.		

10. STABILITY AND REACTIVITY

Chemical Stability: STABLE. Can form peroxides of unknown stability.
Conditions to Avoid: Keep away from heat, sparks and flame.
Materials to Avoid: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, and other asphxiants.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Ingredient/CAS No.	wt. %	Route	Species	Dose
Solvent Refined Light Paraffinic Distillate 64741-89-5	80-90	Oral	Rats	LD50 >15 gm/kg
Glycol Ether EB 111-76-2	10-20	Inhalation	Rats	LC50 450 ppm/4H

Carcinogenicity:

Ingredient/CAS No.	wt. %	IARC	NTP	OSHA
Solvent Refined Light Paraffinic Distillate 64741-89-5	80-90	Not Listed	Not Listed	Not Listed
Glycol Ether EB 111-76-2	10-20	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Not determined.

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Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: Not Regulated
Hazard Class: Not Regulated
UN/NA Number: Not Applicable
DOT Packing Group: Not Applicable

IMDG:

Proper Shipping Name: Not Regulated
Hazard Class: Not Regulated
Hazard Subclass: Not Regulated
UN No.: Not Regulated
Packing Group: Not Regulated
Marine Pollutant: No.

15. REGULATORY INFORMATION

US Federal Regulations:

Table with 6 columns: Ingredient/CAS No., wt. %, SARA 313, SARA 302, RQ, TPQ. Rows include Solvent Refined Light Paraffinic Distillate and Glycol Ether EB.

SARA 311/312 Hazard Categories: Not Determined.

State Regulations:

Table with 6 columns: Ingredient/CAS No., wt. %, California Prop. 65 Cancer list, California Prop. 65 Developmental Toxicity, California Prop. 65 Reproductive Female, California Prop. 65 Reproductive Male. Rows include Solvent Refined Light Paraffinic Distillate and Glycol Ether EB.

U.S. TSCA: The components of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

Disclaimer:

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN HAVE BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE. TO THE BEST OF THE COMPANY'S KNOWLEDGE AND BELIEF THEY ARE ACCURATE AND RELIABLE AS OF THE DATE ISSUED.