ZECOL™

Effective Date: May 10, 2016

Product #(s) – 87005, 87025, 87055

Safety Data Sheet

For Emergency Call:
CHEM-TEL (800) 255-3924 24 Hour Assistance

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Zecol Max Pro Series Universal Tractor Hydraulic Fluid

CAS Number: Various
Recommended Uses: Automotive Lubricant – Hydraulic Oil
Company Identification
Manufacturer's Name: ZECOL PRODUCTS COMPANY
Address: 4635 Willow Drive, Medina, MN 55340
Telephone – General Information: (763) 478-3438

2. HAZARDS IDENTIFICATION

Hazard Classes: None

Signal Word: None

Hazard Statements: None

Precautionary Statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children,
P103	Read label before use.

Hazard Pictograms: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Typical Weight Percentage	CAS Number
Refined Petroleum Oil(s)	75-90%	Various
Zinc Dialkyl Dithiophosphate	<2	68649-42-3
Additives (Non-hazardous or below regulatory limits)	10-25%	Proprietary

4. FIRST AID

Eyes: If irritation or redness develops, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

Inhalation: First aid is not normally required. If breathing difficulties develop, move victim away from sources of exposure and into fresh air in a position comfortable for breathing. Seek immediate medical attention.

Ingestion: First aid is not normally required, however, if swallowed and symptoms develop, seek medical attention.

Notes to Physicians: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

When using high pressure equipment, injection of product under the sin can occur. In this case, the victim should be sent immediately to the hospital. Do not wait for symptoms to develop. High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. These injuries often require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury. Early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

Medical Conditions: Conditions which may be aggravated by exposure include skin disorders.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, CO2, water spray or foam. .Water spray or foam may cause frothing of materials heated above 212°F / 100°C. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

Specific Hazards: This may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide and other products of incomplete combustion.

Special Firefighting Procedures: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: This material will burn but will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. For large spills, notify people down-wind of spill/release, isolate immediate hazard area and keep unauthorized personnel out.

Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water, notify appropriate authorities. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface water, may require notification of the National Response Center (phone number 800-424-8802).

Methods for Containment and Clean-Up: Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand, earth or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g., skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Keep away flames and hot surfaces. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see Section 8).

Used motor oils have been shown to cause skin cancer in mice after repeated application to the skin without washing. Brief or intermittent skin contact with used motor oil is not expected to cause harm if the oil is thoroughly removed by washing with soap and water.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

Spills will produce extremely slippery surfaces. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes.

Conditions for Safe Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Refined Petroleum Oil(s) – as Oil Mist, if generated	5 mg/m^3	10 mg/m^3	5 mg/m^3	None

Engineering Controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

Specific Personal Protective Equipment

Eye/Face Protection: The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation or injury. Depending on conditions of use, a face shield may be necessary.

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Suggested protective materials: nitrile.

Respiratory Protection: Where there is potential for airborne exposure above the exposure limits, a NIOSH approved air purifying respirator with R or P95 filters may be used.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Air-purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration as directed by regulation or the manufacturer's instructions, in oxygen deficient (less than 19.5% oxygen) situations or under conditions that are immediately dangerous to life and health (IDLH).

Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Other Protective Equipment: Eye wash and quick-drench shower facilities should be available in the work area.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid
Odor: Mild petroleum odor
Odor threshold: No data
pH: Not applicable
Melting/Freezing Point: Not determined
Boiling Range: Not determined
Flash Point: >220 °C / 428 °F (Open Cup)
Auto-Ignition Temperature: Not determined
Evaporation rate (butyl acetate = 1): <1
Flammability (solid, gas): Not applicable
Explosive Limits: No data
Vapor Pressure: <0.1 mmHg
Vapor Density (air = 1): >1

Specific gravity (H_20 = 1): 0.87 – 0.88
Solubility in water: Insoluble
Partition Coefficient: No data
Decomposition Temperature: No data
Viscosity: 9.1 cSt @ 100 °C / 212 °F

10. STABILITY AND REACTIVITY

Stability (thermal, light, etc.): Stable under normal conditions of storage and handling.

Conditions to Avoid: Extended exposure to high temperatures can cause decomposition. Avoid all possible sources of ignition (see Sections 5 and 7).

Incompatibility (materials to avoid): Avoid contact with strong reducing and oxidizers.

Hazardous Decomposition Products: Thermal decomposition may release carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Product/Ingredient Name	Result	Species	Dose
Refined Petroleum Oil(s)	LD50 Oral (estimated)	Rat	≥5 g/kg
	LD50 Dermal (estimated)	Rabbit	>2 g/kg
	LC50 Inhalation (mist, estimated)	Rat	>5 mg/l

Skin Corrosion/Irritation: Causes mild skin irritation. Repeated exposure may cause dryness or cracking.

Serious Eye Damage/Irritation: Causes mild irritation.

Signs and Symptoms: Inhalation of oil mists or vapors generated at elevated temperatures may cause respiratory irritation. Accidental ingestion can result in mild irritation of the digestive tract, nausea and diarrhea.

Skin Sensitization: None reported

Respiratory Sensitization: No data found.

Germ Cell Mutagenicity: There is insufficient information available to conclude that this material is mutagenic.

Carcinogenicity: There is insufficient information available to conclude that this material is carcinogenic.

This material is not identified as a carcinogen by NTP, IAR or OSHA.

Reproductive Toxicity: There is insufficient information available to conclude that this material is a reproductive toxicant.

Specific Target Organ Toxicity (Single Exposure): Not expected to cause organ effects from single exposure

Specific Target Organ Toxicity (Repeated Exposure): Not expected to cause organ effects from repeated exposure.

Aspiration Hazard: Not expected to be an aspiration hazard.

Information on Toxicological Effects of Components:

Refined Petroleum Oil(s)

Carcinogenicity: The petroleum base oils contained in this product have been highly refined by a variety of processes including severe hydrocracking/hydroprocessing to reduce aromatics and improve performance characteristics.

12. ECOLOGICAL INFORMATION

Toxicity: All acute aquatic toxicity studies on samples of lubricant base oil(s) show acute toxicity values greater than 100 mg/L for invertebrates, algae and fish. . These tests were carried out on water accommodated fractions and the results are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon composition. Classification: No classified hazards.

Persistence and Degradability: The hydrocarbons in this material are not readily biodegradable but are regarded as inherently biodegradable since their hydrocarbon components can be degraded by microorganism.

Bioaccumulative Potential: Log Kow values measured for the hydrocarbon components of this material are greater than 5.3, and therefore are regarded as having the potential to bioccumulate. In practice, metabolic processes may reduce bio-concentration.

Mobility in Soil: Volatilization to air is not expected to be a significant fate process due to the low vapor pressure of this material. In water, base oils will float and spread over the surface at a rate dependent upon viscosity. There will be significant removal of hydrocarbons from water by sediment adsorption. In soil and sediment, hydrocarbon components will show low mobility with adsorption to sediments being the predominant physical process. The main fate process is expected to be slow biodegradation of the hydrocarbon constituents in soil and sediment.

Other Adverse Effects: None known

13. DISPOSAL CONSIDERATIONS

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste and is not believed to exhibit characteristics of hazardous waste.. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

This material under most intended uses would become "Used Oil" due to contamination by physical or chemical impurities. Whenever possible, recycle used oil in accordance with applicable federal and state or local regulations. Container contents should be completely used and containers should be emptied prior to discard.

14. TRANSPORT INFORMATION

DOT/TDG Proper Shipping Name: Not regulated

15. REGULATORY INFORMATION

TSCA: This material and/or its components are listed on the TSCA inventory or not regulated by TSCA.

DSL: This material and/or its components are listed on the DSL inventory or are exempt from DSL listing requirements.

OSHA (Occupational Safety and Health Administration): This material is NOT considered to be hazardous as defined by the OSHA Hazard Communication Standard.

This material has not been identified as a carcinogen by NTP, IARC or OSHA.

CERCLA/SARA – Section 302 Extremely Hazardous Substances and TPQ (in pounds): This material does NOT contain chemicals subject to the reporting requirements of SARA 302 and 40 CFR 355 Appendix A and B.

EPA (CERCLA) Reportable Quantity (in pounds): This material does NOT contain chemicals subject to the reporting requirements of 40 CFR 302.4.

CERCLA/SARA - Sections 311/312 (Title III Hazard Categories):
Acute: No Chronic: No Fire: No Reactivity: No

CERCLA/SARA – Section 313 and 40 CFR 372: This material contains the following chemicals subject to the reporting requirements of SARA 313 and SARA Title III and 40 CFR:

Component	Concentration	de minimis
Zind dialkyl dithiophosphate	<2	1%

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material does NOT contain detectable chemicals known to the State of California to cause cancer and/or reproductive toxicity.

Canada:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

WHMIS Hazard Class: None

16. OTHER INFORMATION

Refined Petroleum Oils: The base oils in this material are one or more of the following

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Chemical/Common Name	CAS #
Severely Solvent Refined Heavy Paraffinic Distillate	64741-88-4
Severely Solvent Refined Light paraffinic Distillate	64741-89-5
Solvent Refined Residuum	64742-01-4
Solvent Dewaxed Residual Oil (Petroleum)	64742-62-7

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Change: Minor wording changes

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