



# SAFETY DATA SHEET

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

### Enhance™ Super Full Synthetic CK-4 Diesel Engine Oil SAE 5W-40

**PRODUCT USE:** Premium Heavy-Duty Motor Oil

**COMPANY IDENTIFICATION:** Enhance™ Lubricants, LLC  
1959 Bluff Road  
Columbia, SC 29201  
www.enhanceoil.com

**TRANSPORTATION EMERGENCY RESPONSE:** PERS – 800-633-8253

## SECTION 2: HAZARDS IDENTIFICATION

**CLASSIFICATION:** Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	70 - 80% wt
**If chemical name/CAS No is proprietary and/or weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**		

## SECTION 4: FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for at least 15 minutes until irritation subsides. If irritation persists, get medical attention.

**SKIN:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. If irritation persists, get medical attention.

**INGESTION:** If swallowed, do not induce vomiting. If victim exhibits signs of lung aspirations such as coughing or choking, seek medical attention.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

### **MOST IMPORTANT SYMPTOMS AND EFFECTS:**

**SYMPTOMS:** Expected to be a minor eye irritant. Repeated or prolonged skin contact may cause dermatitis.

### **INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:**

Note to Physicians: Treat Symptomatically

## SECTION 5: FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide.

**UNSUITABLE EXTINGUISHING MEDIA:** While carbon dioxide and inert will extinguish the fire, they can also displace oxygen. Use caution when applying carbon dioxide or inert gas in confined spaces.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:** This material can burn but will not readily ignite. This material will release vapors when heated above the flashpoint temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flashpoint. Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Aldehydes. Ketones. Combustion products of sulfur and nitrogen.

**PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid breathing smoke and vapor. Water may be used to cool containers exposed to heat or flame.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Use personal protective equipment as required.

**METHODS FOR CONTAINMENT:** Remove sources of ignition. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**METHODS FOR CLEAN-UP:** Take up small spills with absorbent pads. Large spills may be taken up with pump or vacuum.

## SECTION 7: HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Handle in accordance with good industrial hygiene and safety practice.

### **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**

**STORAGE CONDITIONS:** Store at ambient conditions. Store at atmospheric pressure. Keep container tightly closed. Store in a cool, well-ventilated place. Keep away from heat, sparks and flame. Empty containers retain product residues. Store away from incompatible materials.

**INCOMPATIBLE MATERIALS:** This product may react with strong oxidizing agents.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE GUIDELINES:** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

**APPROPRIATE ENGINEERING CONTROLS:** Use general ventilation and use local exhaust, where possible or enclosed spaces. If product is heated above 70°C (155°F) in the presence of water, hydrogen sulfide vapors may be released. Ventilation should be sufficient to keep hydrogen sulfide levels below recommended exposure limits. Eye wash fountains are recommended.

### **INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:**

**EYE/FACE PROTECTION:** Wear safety glasses. Wear chemical goggles or face shield if splash or mist occurs.

**SKIN/BODY PROTECTION:** Use impervious gloves for prolonged contact. Wear oil-impervious garments if contact is unavoidable.

**RESPIRATORY PROTECTION:** If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.

**GENERAL HYGIENE CONSIDERATIONS:** Use good hygiene when handling petroleum product. Launder contaminated clothing before reuse. Excessive misting may cause slippery floors – wear appropriate footwear.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Light amber

**Physical State:** Liquid

**Odor:** Typical petroleum

**Odor Threshold:** No data available

**pH:** No data available

**Vapor Pressure:** No data available

**Vapor Density (Air = 1):** >1

**Boiling Point/Boiling Range:** No data available

**Solubility:** Insoluble in water

**Freezing Point:** No data available

**Melting Point:** No data available

**Pour Point Temperature:** No data available

**Viscosity:** No data available

**Specific Gravity:** 0.88

**Evaporation Rate:** No data available

**Decomposition Temperature:** No data available

**Partition Coefficient:** No data available

**Flash Point:** 204°C / 400°F ASTM D-92

**Flammability (Solid, Gas):** Liquid- Not applicable

**Upper Flammability Limits:** No data available

**Lower Flammability Limits:** No data available

**Auto-Ignition Temperature:** No data available

**Kinematic Viscosity:** No data available

**Dynamic Viscosity:** No data available

**Explosive Properties:** No data available

**Oxidizing Properties:** No data available

## SECTION 10: STABILITY AND REACTIVITY

**REACTIVITY:** Not reactive under normal conditions.

**CHEMICAL STABILITY:** Stable under recommended storage conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** None under normal processing.

**HAZARDOUS POLYMERIZATION:** Under normal conditions of storage and use, hazardous polymerization will not occur.

**CONDITIONS TO AVOID:** Avoid formation of mists. Keep away from extreme heat, sparks, open flame and incompatible materials.

**INCOMPATIBLE MATERIALS:** This product may react with strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition of this product may yield oxides of baron, calcium, magnesium, nitrogen, phosphorus, sulfur including hydrogen sulfide and zinc as well as carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

## SECTION 11: TOXICOLOGICAL INFORMATION

### INFORMATION OF LIKELY ROUTES OF EXPOSURE:

**EYE CONTACT:** Avoid contact with eyes

**SKIN CONTACT:** Avoid contact with skin

**INHALATION:** Do not inhale

**INGESTION:** Do not ingest

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum derived calcium salt 61789-86-4	>5000 mg/kg (Rat)	>4000 mg/kg (Rabbit)	-

**INFORMATION ON PHYSICAL, CHEMICAL AND TOXICOLOGICAL EFFECTS:**

**SYMPTOMS:** See Section 4

**DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHROMIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:**

**CARCINOGENICITY:** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**SECTION 12: ECOLOGICAL INFORMATION**

This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment.

**COMPONENT INFORMATION:**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7		5000: 96 h Oncorhynchus mykiss mg/L LC50		1000: 48 h Daphnia magna mg/ L EC50
Petroleum derived calcium salt 61789-86-4		5.7-9.7: 96 h Pimephales promelas mg/L LC50 static 1.0-10.0: 96 H Pimephales promelas mg/L LC50 Semistatic		6.2-12: 48 h Daphnia magna mg/L EC50

**MOBILITY:** No data available

**PERSISTENCE/DEGRADABILITY:** No data available

**BIOACCUMULATION:** No data available

**OTHER ADVERSE EFFECTS:** No data available

**SECTION 13: DISPOSAL CONSIDERATIONS**

**DISPOSAL OF WASTES:** Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**CONTAMINATED PACKAGING:** Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**SECTION 14: TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT:** Not regulated

**IMO/IMDG:** Not regulated

ICAO/IATA: Not regulated

**SECTION 15: REGULATORY INFORMATION**

**INTERNATIONAL INVENTORIES:**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Petroleum distillates, hydrotreated heavy paraffinic	Present	X		Present		Present	X	Present	X	X

**Legend:**

**TSCA** – United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**US FEDERAL REGULATIONS:**

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 311/312 Hazard Categories**

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**SARA 313**

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Zinc alkyl dithiophosphate - 113706-15-3	113706-15-3	<1	1.0

**CWA (Clean Water Act)**

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA Hazardous Substances
Zinc alkyl dithiophosphate		X		

**US STATE REGULATIONS:**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**US STATE RIGHT-TO-KNOW REGULATIONS:**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Zinc alkyl dithiophosphate 113706-15-3	X		X

<b>SECTION 16: OTHER INFORMATION</b>
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**NFPA RATINGS:** Health: 1      Flammability: 1      Reactivity: 0      Special Hazards: NA

**HMIS RATINGS:** Health: 1      Flammability: 1      Reactivity: 0      Personal Protection: NA

**DISCLAIMER**

*The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose*

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