

Premier Engine Oil

- Advanced anti-oxidant chemistry reduces high temperature deposits by as much as 50% over conventional oils
- Formulated with Moly^{XP} for unsurpassed protection from wear
- Exceeds ACEA E9, Caterpillar ECF-1, 1A & 3, Cummins CES 20081, Mack EO-O Premium Plus 07, Detroit Diesel 93K218, Mercedes-Benz 228.31, Volvo VDS 4 and others

SWEPCO 310 Premier Engine Oil is a high performance synthetic, multigrade, long drain engine oil, especially formulated to provide industry leading protection from heat, wear and contaminants.

SWEPCO 310 not only meets, but exceeds, the unique service requirements of diesel engines equipped with low emission systems, such as diesel particulate filters (DPF), exhaust gas recirculation (EGR) and diesel oxidation catalysts (DOC).

To meet the cleanliness challenges of these modern engine systems and ultra-low sulfur diesel fuels, SWEPCO 310 has been carefully formulated to provide:

- Superior engine & filter cleanliness
- Superior oxidation resistance for longer drain service
- Added control of abrasive wear, particularly in liners and top rings
- Backwards compatible with older engines



No compromises here. SWEPCO 310 exceeds the industry's most demanding performance requirements, especially for 2017 and later low emission over-the-road diesel engines.

- High, stable TBN for longer service life and better protection from corrosive gases and contaminants
- Superior film thickness and shear stability

SWEPCO 310 achieves this new level of performance with the very finest *SyntheonTM* synthetic base stock blends and the most advanced additive chemistry, including **Moly^{XP}**, SWEPCO's proprietary anti-wear/extreme pressure additive and proprietary state-of-the-art anti-oxidant chemistry.

For those who require the absolute best in performance from new generation over-the-road diesel engines, SWEPCO 310 is the very best choice. Because it is backwards compatible, it provides a new generation of protection for older diesel engines, off- road diesel equipment, gasoline engines and mixed fleets.

Protect your engines with the *premium* choice ... SWEPCO 310.

Feature	Benefit		
Syntheon™ Synthetic Base Stock Blends	 Insure more uniform viscosity over a wide temperature range Help improve high temperature oxidation and thermal stability Better low temperature flow characteristics help reduce start-up wear Extend service life 		
Multi-Grade	 Meets the requirements of more than one viscosity grade, resulting in a lubricant that bears the benefits of both viscosities Made to lubricate effectively over a wider temperature range than a single grade oil allowing you to keep lubrication simple year-round 		
Moly ^{xP}	 Acts as a synergist along with other anti-wear additives to eliminate premature wear and reduce friction Helps improve fuel economy by reducing friction and drag Insures protection from extreme pressures 		
State-of-the-Art Oxidation Inhibitors	 Reduce oil thickening and deposits by as much as 50%; extend oil life Help prevent sludge, varnish and carbon deposits that result from oxidation 		
TBN Booster/Stabilizer	Increase ability to neutralize harmful acids and corrosivesLengthen service life		
Rust and Corrosion Inhibitor	Builds a chemical bond with the surface to keep moisture and acids from penetrating and attacking the surfaces		
Anti-Foam Additive	 Can lower oil operating temperatures by 25-50° F by dispersing the foam and releasing the trapped heat 		
Oiliness Additive	Enables the oil to penetrate the surface for better lubrication		
Anti-wear Inhibitor	Helps prevent friction and wear Helps prevent metal to metal contact		
Detergent Additive	• Helps keep engine parts clean, neutralizes acids formed during combustion		
Dispersant Additive	Helps keep solid contaminants in the oil in colloidal suspension, preventing sludge and varnish deposits on engine parts		
Pour Point Depressant Additive	Gives the oil better low temperature flow characteristics Helps to reduce low temperature start-up wear		
Viscosity Index Improver Additive	Less high temperature thinning and low temperature thickening		
Saves Fuel	• Increased "oiliness" provides anti-friction film to reduce fuel consumption		
Long Life	Works harder for a longer period of time thus easing the cost and your worries about waste oil disposal		
Lab <i>Tec</i> SM Fluid Analysis Program	Maximizes equipment and lubricant life and pinpoints impending problems Reduces waste		

Exceeds Performance Requirements of the Following Specifications:

- Mack EO-O Premium Plus 07, EO-N Premium Plus 03, EO-M Plus, EO-M, EO-L Plus, EO-L
 Volvo VDS-4, VDS-3, VDS-2
 Cummins CES 20081, 20078, 20077, 20076
 Daimler Benz 228.31, 228.3, 228.1
 ACEA E-9, E-7, E-5, E-3
 CAT ECF-1, ECF-1A, ECF-3, C1P, C1N
 Detroit Diesel 93K218, 93K215
 MAN M3275
 JASO DH-1

- JASO DH-1
- Global DHD-1DFS 93K218, 93K215, 93K214
- MB P228.31MTU Category 2.1Renault RLO-3

Typical Properties:

SAE Engine Oil Grade	5W30	10W30	15W40
API Spec(s)	CK4/FA4	CK4/FA4	CK4
Viscosity, cSt @ 40° C	72.26	74.13	109.06
Viscosity, cSt @ 100° C	11.5	11.9	15.14
Viscosity Index	153	157	144
Pour Point °F/°C	40	40	35C(-31F)
Flash Point °F	430	430	440
Flash Point °C	221	221	227
Lb/Gal	7.105	7.149	7.205
Specific Gravity	0.8578	0.8572	0.8639
TBN	11	11	11
Sulfated Ash, % wt	1	1	1

NOTE: Check for availability of all grades in all market areas.

NOTE: Use 5W30 or 10W30 only for 2017 engines and newer



A Product of SPX Technology™.

the cutting edge performance SWEPCO Customers have come to expect.

















Southwestern Petroleum Corporation