



Renewable Lubricants, Inc.

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Bio-Synthetic SHP Motor Oil SAE 0W20 PCMO

STABILIZED™
by Renewable Lubricants

"Biobased Lubricants that Perform Like Synthetics"

Bio-Synthetic Super High Performance Motor Oil SAE 0W20 is a biobased motor oil that is designed to provide optimum performance in high output gasoline engines in passenger cars, vans, sport utility vehicles, and light trucks requiring API SM, SL, and SJ.

HIGH PERFORMANCE BENEFITS OF STABILIZED HOBS FORMULATIONS:

- Excellent oxidation stability
- Superior viscosity stability
- Excellent mechanical shear stability
- Superior extreme pressure performance
- Improved biodegradability over mineral oil formulas
- Hydrolysis protection
- Superior low volatility performance
- Superior low foam tendency
- Tested by the USDA as Biobased

This biobased lubricant is formulated to exceed the Original Equipment Manufactures (OEM) requirements for new vehicles, but vehicles with higher mileage and equipment with high hours need a different lubricant that improves performance in these out of warranty machines. As the engine wears the lubrication film needs to be improved and the additive technology should also be increased to prevent wear and condition the seals for longer life. Unlike conventional motor oils, this biobased formula has special additives and additional booster additives that help improve engine life. **(Lubricity Enhanced)**

Since 1993, RLI's unique, first of their kind, Bio-Super High Performance Motor Oils have proven exceptional performance in the racing world, and they are the lubricants of choice for top performing world and national champions. These high performance racing oils have exceeded the performance of conventional petroleum based products and have shown performance equal to and better than synthetic formulas. Excellent performance has also been experienced from the heavy loads (3000 HP @ >9000 RPM) of IHRA Seven Time World Champion alcohol fueled dragster to the high-temperature, long-term endurance, championship, road racing. These specially formulated racing oils have been designed and tested to run in extreme conditions that would be expected with the motor sport, high performance engines.

This High Performance Lubricant is formulated using the most advanced and newest API SM approved additives. While no formal engine oil license performance is implied or guaranteed in this formulation, the key physical properties as defined by SAE J300 are met. This biobased formulation is inherently biodegradable and is designed to reduce emissions over conventional formulas.

STABILIZED by Renewable Lubricants * is RLI's trademark on their proprietary and patented anti-oxidant, anti-wear, and cold flow technology. High Oleic Base Stock (HOBS) are agricultural vegetable oils. This Stabilized technology allows the HOBS to perform as a high performance formula in high and low temperature applications, reducing oil thickening and deposits.

US Patents: 5,736,493, 5,863,872, 5,990,055, 6,383,992, 6,534,454 and foreign PCT

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Availability F.O.B. :Hartville, Ohio, USA 1 Gallon 5 Gallon Pails Drums Bulk

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TYPICAL SPECIFICATIONS	METHOD	<u>SAE 0W20</u>
TEST		
Specific Gravity @ 15.6°C	ASTM D-287	.88
Viscosity @ 100°C	ASTM D-445	8.6
Viscosity @ 40°C	ASTM D-445	44
Viscosity Index	ASTM D-2270	178
Flash Point (COC)	ASTM D-92	240°C
Pour Point	ASTM D-97	-48
CCS @ -35°C, cp	ASTM-D-5293	Max – 6,200
MRV-TP1 @ -40°C, cP	ASTM-D-4684	14,000
Yield Stress, Pa		None
HTHS @ 150° C, Apparent Viscosity, cP	ASTM-D-4683	>2.9
Noack Volatility %		9.0
Energy Conserving		YES

Following are some of the organizations and companies who are using RLI's Bio-Engine Oils successfully:

USDA – Beltsville
 U.S. Coast Guard
 Pictured Rocks National Lakeshore
 Sleepy Hollow State Park
 Point Reyes National Seashore
 Wells State Park
 Cape Cod National Seashore
 Atkinson Contractors
 Mark Thomas Racing
 Volunteer Chevy
 NOAA and the Great Lakes Region
 Portage Area Regional Transit Authority (PARTA)