

Bio-SynXtra™ HD Plus SHP SAE 15W40 Motor Oil (Low Ash)

Biobased, High-Performance Diesel and Gasoline Engine Oil

Bio-SynXtra™ HD Plus SHP SAE 15W40 is a low-ash, biobased engine oil engineered to meet the requirements of EPA-compliant diesel engines with after-treatment systems such as diesel oxidation catalysts and particulate filters. Formulated with Stabilized™ technology, this oil delivers superior wear protection, thermal stability, and soot control, while being suitable for both new and high-mileage diesel or gasoline engines. Ideal for commercial fleets, off-road equipment, and performance racing, this formulation performs like a synthetic and exceeds many industry and OEM standards.

Benefits

- Meets or exceeds API SN/CK-4 and all prior API categories
- Superior viscosity stability and reduced volatility for lower emissions
- Excellent protection from soot, varnish, and sludge under high thermal stress
- Low-temperature pumpability and cold start protection
- Enhanced wear and corrosion protection for overhead cams and conventional engines
- Extended drain capabilities with high reserve alkalinity (10.3 TBN)
- Performs in manual transmissions and hydraulics requiring CAT TO-2, Allison C-3/C-4
- Super high VI (~179) supports fuel economy and emission reduction
- Proven in professional motorsport and endurance conditions
- Biodegradable and USDA BioPreferred SM listed

Application / New Filling

Recommended for use in:

- EPA 2007+ compliant diesel engines (on- and off-road)
- Naturally aspirated, turbocharged, and supercharged gasoline or diesel engines
- Commercial trucks, buses, agriculture, construction, marine, and performance vehicles
- Manual transmissions and power-shift equipment requiring SAE 15W40
- Older engines or equipment with higher mileage needing enhanced lubrication

OEM Specifications and Compatibility:

- API SN, CK-4 (unlicensed formula)
- ACEA E9-08-Issue 2, ACEA E7-04-Issue 2
- MTU Type 2.1, CAT ECF-1-A, ECF-2, ECF-3
- VOLVO VDS-3, VDS-4
- Mack EO-O Premium Plus, EO-O PP-07

STABILIZED™
by Renewable Lubricants

- Detroit Diesel DDC 93K218
- MB 228.3 / MB 228.31
- MAN M 3575
- CUMMINS CES 20081, 20085, 20086, 20092
- Renault Truck RLD-3
- Deutz DQC III-10 LA

Specifications and Approvals

- Stabilized™ Technology
 - U.S. Patents: 5,990,055; 6,383,992; 6,534,454
 - Canada: 2,498,812; 2,538,768; 2,609,756
 - Mexico: 275,334; 308,832
 - Meets SAE J300 performance and ILSAC base oil interchange test requirements
 - Used successfully by: NASA, U.S. Army, U.S. Coast Guard, USDA, NOAA, national parks, and professional motorsports

TYPICAL SPECIFICATIONS		
Viscosity @ 100°C	ASTM D-445	15.2
Viscosity @ 40°C	ASTM D-445	90
Viscosity Index	ASTM D-2270	179
Flash Point (COC)	ASTM D-92	242°C
Pour Point, °C	ASTM D-97	-36
CCS @ -20°C, cp	ASTM D-5293	Max – 7,000
MRV-TP1 @ -25°C, cP	ASTM D-4684	13,000
Yield Stress, Pa		None
HTHS @ 150° C, Apparent Viscosity, cP	ASTM D-4683	>3.7
NOACK Volatility % max 1h at 250°C	NOACK	6.0
Total Base Number	ASTM D-2896	10.3
Sulfated Ash, % max	ASTM D-874	<1
Zinc,, ppm max	ASTM D-4951	1202
Phosphorus, ppm max	ASTM D-4951	1082
Sulfur, ppm max	ASTM D-4951	3800