

## *BioGreen UltraGard Full Synthetic Engine Oils*

### DESCRIPTION

**BioGreen UltraGard Full Synthetic Engine Oil** is the first and only API SN GF-5 licensed bio-based engine oil. BioGreen UltraGard Full Synthetic Engine Oil is a full synthetic engine oil formulated using nanotechnology with a blend of highly polar esters, high performance additives, and is compatible with all other motor oils. Rated biodegradable, non-petroleum based, and reduces dependency on non-renewable petroleum.

**BioGreen UltraGard Full Synthetic API Service SN/CF motor oils** are among the premium oils in the marketplace today. Synthetic motor oils show a marked improvement in the areas of thermal stability and low temperature pump ability over conventional oils.

**BioGreen UltraGard API SN full synthetic motor oils** use high quality synthetic base stocks along with state of the art additive technology to create high quality motor oil for use in gasoline powered engines. These API licensed motor oils provide protection against engine wear and deposits, while extending the life of emission control component. Due to the high quality components, this synthetic motor oil allows up to 10,000 miles between oil changes

These oils carry the American Petroleum Institute SN/CF approvals, and the 5W-20, 5W-30, and 10W-30 grade also carry the ILSAC GF-5 approval. The API donut and ILSAC starburst identify oils which have undergone the necessary testing to meet current automotive specification. In addition the API tests samples from the market place to verify compliance with current specifications. These oils also meet all older API gasoline specifications (SL, SJ, etc...) and diesel CF specification.

*Always follow manufacturer's recommendations for service classification and viscosity grade.*

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### APPLICATION

- ✓ All passenger cars, light trucks and SUV's sold in North America;
- ✓ Police and other municipal fleets where maximum mileage and minimum maintenance is desired;
- ✓ Individual car owners seeking higher levels of engine protection than conventional oils.



**BENEFITS**

- ✓ High Performance, naturally better than synthetics;
- ✓ Full synthetic engine protection under extreme cold or hot temperatures;
- ✓ Anti-wear and friction reduction outperforms conventional motor oil;
- ✓ Provide significant reductions in HC (hydrocarbons -32%), CO (carbon monoxide -48%) and NOX (nitrous oxides -80% emissions);
- ✓ High flash point;
- ✓ Mixes with any other engine oil;
- ✓ Added oil emulsion specification for E85 vehicle protection;
- ✓ Outstanding energy conserving properties for highest mileage;
- ✓ Outstanding low temperature flow properties for startup and cold weather use ;
- ✓ Biodegradable.

<b>TYPICAL PROPERTIES</b>					
SAE Viscosity Grade	5W-20	5W-30	10W-30	10W-40	20W-50
API Classification, (ILSAC Classification)	SN/CF (GF-5)	SN/CF (GF-5)	SN/CF (GF-5)	SN/CF	SN/CF
Kinematic Viscosity @ 100 °C cSt (ASTM D-445)	8.7	10.8	10.3	14.4	18.8
Kinematic Viscosity @ 40 °C cSt (ASTM D-445)	48.7	62	65.4	96.1	129.5
Viscosity Index (ASTM D-2270)	159	165	145	155	164
Total Base Number (ASTM D-2896)	8.4	8.1	8.3	8.4	9.0
Flash Point °C (°F) (ASTM D-92)	230(446)	234(453)	246(474)	234(453)	236(457)
Pour Point °C (°F) (ASTM D-97)	-36(-33)	-33(-27)	-33(-27)	-33(-27)	-39(-38)
API Gravity (ASTM D-1298)	34.6	34.5	33.5	33.6	30.0
Zn (ppm)	850	850	850	850	850
Ca (ppm)	2140	2140	2140	2140	2140
P (ppm)	770	770	770	770	770

- Additional Information:**
- Available in 0w20, 0w30, 5w20, 5w30, 10w30, 15w40
  - 15w40 is CJ-4/SM – a superior diesel engine motor oil
  - Does not compete with food supply
  - 0-0-0 hazard rating

The information on this Product Data Sheet is believed to be accurate and is typical of current production. Specifications are subject to change without notice.

**Health And Safety Information** See separate Material Safety Data Sheets available on request.