

## **TECHNICAL DATA**

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## 191 MICRON MOLY® RACING OIL SAE 20W-50

Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 is a superior quality high zinc containing, multi-grade motor oil that is specially formulated to reduce friction and wear, increase engine efficiency and extend the engine life of high performance gasoline engines including those that contain flat tappet cam engines and those that are turbocharged. Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 is also designed for those that are designed to burn alcohol based racing fuels.

Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 is blended from the finest high viscosity index solvent refined severely hydro-finished 100% paraffin base stocks, highly shear stable viscosity index improver and a highly specialized performance racing additive package to provide the following performance benefits:

- Resistance to mixing with alcohol based fuels
- Outstanding protection against the formation of high temperature deposits.
- Exceptional protection against thermal breakdown during high engine oil operating temperatures.
- Rapid circulation and excellent pumpability.
- Excellent resistance to thinning at high temperatures.
- Extra protection for hot running engines.
- Extra protection for cold running engines in stop-and-go service.
- Excellent high temperature/high shear performance to provide excellent oil film thickness and engine protection at high operating temperatures and shear rates, while minimizing lubricant frictional resistance.
- High detergency and dispersancy to suppress the formation of deposits, sludge and varnish.
- Reduced oil ageing allowing for increased drain intervals.
- High lubricity for substantial reduction in ring and cylinder wear.
- Reduced bearing wear and increased bearing life.
- Excellent rust and bearing corrosion protection.
- Enhanced vehicle emissions control system compatibility and system life.
- Increased engine cleanliness and engine life.
- Increased fuel economy benefits and retention for improved gas mileage during the oil's entire oil drain interval.
- Superior valve train-wear protection.
- Excellent anti-foaming properties.

Micron Moly® Racing Oil SAE 20W-50, also contains two proven frictional modifiers Micron Moly® and Schaeffer Mfg's own proprietary additive Penetro®. These two proven frictional modifiers once plated, form a long lasting, slippery, tenacious lubricant film, which prevents the metal surfaces from coming into contact with each other. By preventing metal-to-metal contact, damaging frictional wear is reduced which results in reduced wear, increased engine life and lower maintenance costs.

Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 is also recommended for use in most types of 4-cycle air-cooled or water-cooled motorcycle engines and ATV engines including those motorcycles that have a common sump for the engine and transmission **(non-metallic clutches only)**.

*Micron Moly*<sup>®</sup> Racing Oil SAE 20W-50 is not recommended for use in those motorcycle and ATV applications that specify engine oil that meets JASO MA, MA-2 or MB. Use of Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 in applications that specify JASO MA, MA-2 or MB oil can cause slippage and improper engagement of the clutch mechanisms.

## Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 is also not recommended for use in 4-cycle marine engines that specify the use of a NMMA FC or FC-W four cycle engine oil.

Micron Moly<sup>®</sup> Racing Oil SAE 20W-50 meets and exceeds the following specifications and manufacturers' requirements: MIL-PRE- 46152E, CID A-A-52039B, API Service Classification SM, Ford M2C153-G, ESR-M2C127-B, ESR-M2C179A, SSM 29011-A, General Motors, Chrysler, Mercedes Benz 229.1, 229.3, and JASO JIS K2215

## **TYPICAL PROPERTIES**

SAE Grade	20W-50
Viscosity @ 40° C, cSt. (ASTM D-445)	162.1
Viscosity @ 100° C, cSt. (ASTM D-445)	18.5-21.00
Viscosity Index (ASTM D-2270)	125
High Temperature High Shear Viscosity	
@ 302°F/150°C, cP (ASTM D-4683)	4.47
Cold Cranking Viscosity at –15°C cP (ASTM D-5293)	3,466
Cold Cranking Viscosity at -20°C cP (ASTM D-5293)	6,575
Mini Rotary Viscosity-TP1, cP @ -20° C (ASTM D-4684)	21,989
MRV Borderline Pumping Temp °F/°C (ASTM D-3829)	-5°/-20.56°
Scanning Brookfield Gelation Index @ 14°F/-10°C	4.4
Flash Point °F/°C (ASTM D-92)	450°/230°
Fire Point °F/°C (ASTM D-92)	500°/260°
Stable Pour Point FTM 7916 Method 203 °F/°C	-33°/-36°
Sulfated Ash Content % WT (ASTM D-874)	0.9
Total Base Number (ASTM D-2896)	7.5
Orban Shear Stability % Viscosity Loss (ASTM D-7109)	
% Loss 30 Passes	5
% Loss 90 Passes	10.3
Copper Strip Corrosion (ASTM D-130)	1a
NOACK Volatility % Evaporation Loss (ASTM D-5800)	12.2%
Foam Test (ASTM D-892)	
Sequence I	0/0
Sequence II	0/0
Sequence III	0/0
Sequence IV	0/0
High Temperature Foam Test (ASTM D6082 Option A)	0/0
MHT-4 TEOST (ASTM 6335)	
Deposit Weight, mg	23.8
Engine Rusting Ball and Rust Test (ASTM D-6557)	100
Average Gray Value	133
Zinc Content, ppm	1800-2100
Phosphorous Content, ppm	1700-1850