



TECHNICAL DATA

102 Barton Street, St. Louis, Missouri 63104

In-State (314) 865-4100/Out of State 800-325-9962/Fax (314) 865-4107 <http://www.schaefferoil.com>

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

API SERVICE CLASSIFICATION SM

Micron Moly® 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® Racing Oil SAE 20W-50 is also designed for those that are designed to burn alcohol based racing fuels.

Micron Moly® Racing Oil SAE 20W-50 is blended from the finest high viscosity index solvent refined severely hydro-finished 100% paraffin base stocks available. These 100% paraffin base stocks provide Micron Moly® Racing Oil SAE 20W-50 with:

1. Excellent Thermal Stability
2. High Lubricity
3. Excellent Resistance to Oxidation
4. Excellent Film Strength
5. Low Volatility Characteristics
6. Resistance to mixing with alcohol based fuels

Blended into these 100% paraffin base stocks is a highly specialized performance additive package and a proven highly shear stable viscosity index improver. This highly specialized additive package and the highly shear stable viscosity index improver allows the Micron Moly® Racing Oil SAE 20W-50 to provide the following performance advantages:

1. **Outstanding protection against the formation of high temperature deposits.**
2. **Exceptional protection against thermal breakdown during high engine oil operating temperatures.**
3. **Rapid circulation and excellent pumpability.**
4. **Excellent resistance to thinning at high temperatures.**

Continued on Next Page

TD-191 (Rev.07/2010)

5. **Excellent shear stability in order to help the Micron Moly Racing Oil to stay in grade over the oil drain's interval.**
6. **Extra zinc anti-wear additives to protect flat-tappet cams from excessive wear.**
7. **Substantially reduced oil consumption.**
8. **Extra protection for hot running engines.**
9. **Extra protection for cold running engines in stop-and-go service.**
10. **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.**
11. **High detergency and dispersancy to suppress the formation of deposits, sludge and varnish.**
12. **Reduced oil ageing allowing for increased drain intervals.**
13. **A substantial reduction in ring and cylinder wear.**
14. **Reduced bearing wear and increased bearing life.**
15. **Excellent rust and bearing corrosion protection.**
16. **Enhanced vehicle emissions control system compatibility.**
17. **Extended vehicle emissions control system life.**
18. **Increased engine cleanliness.**
19. **Increased fuel economy benefits and retention for improved gas mileage during the oil's entire oil drain interval.**
20. **Superior valve train-wear protection.**
21. **Increased engine life.**
22. **Excellent anti-foaming properties.**

Further blended into the 100% paraffin base oils, the performance additive package and the viscosity index improver are two proven frictional modifiers, Micron Moly®, a liquid soluble type of 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 prevented from occurring. This prevention of metal-to-metal contact and reduction in wear results in:

- * **Increased fuel economy**
- * **A low coefficient of friction**
- * **Significantly less bearing, ring, piston, cylinder and valve-train wear.**
- * **Increased engine efficiency**

- * **Increased engine durability**
- * **Increased engine life**
- * **Less down-time**
- * **Reduced maintenance costs**

Micron Moly® 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. Micron Moly® Racing Oil SAE 20W-50 can also be used in those motorcycles that have a common sump for the engine and transmission. Micron Moly® Racing Oil SAE 20W-50 however is not recommended for use in those motorcycles that specify the use of a JASO MA or MB specification engine oil or those 4-cycle marine engines that specify the use of a NMMA FC-W four cycle engine oil.

Micron Moly® 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 on Next Page)

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)	
Average Gray Value	133
Zinc Content. ppm	1800-2100
Phosphorous Content, ppm	1700-1850