

## PRODUCT DATA SHEET

# Royal Diesel Supreme Plus Monograde

## Heavy Duty Diesel Engine oils



### PRODUCT DESCRIPTION:

**Royal Diesel Supreme Plus Monograde** oils contain the same high quality base stocks and performance additives found in the multi-weight oils. The SAE 10 may be used where a API-CF oil is recommended while the SAE 20 can be used for the CF/SJ service. The SAE 30, 40 and 50 grades meet the requirements of the medium and heavy-duty diesel as well as the two stroke engines. They are suited for the applications where high performance API CF-2, CF, CE, CD-II, CD, SG and SH (except 10W) or SJ service is required. They may be used in some LPG, CNG and alternate fuel engine applications.

**Royal Diesel Supreme Plus Monograde** are suitable for use in both gasoline and diesel service making them applicable to mixed fleets in “on-and-off road” use. Specific viscosity grades are approved for use in power-shift, manual and hydrostatic transmissions, as well as final drives and hydraulic systems where the use of a heavy-duty detergent type of engine oil is recommended.

### KEY FEATURES:

- Excellent corrosion protection
- Excellent rust protection
- Enhanced engine life

### CUSTOMER BENEFITS:

- Controls low temperature sludge deposits for cleaner engines Oxidation protection for extended pump life in various pressure circulating systems
- Reduces ring sticking and wear by controlling the formation of high temperature varnish Foam inhibited to assure smooth and efficient machine operation through rapid release of entrained air
- Minimizes valve and combustion chamber deposits
- Provides protection against the formation of acids caused by oxidation or fuel
- Lessens formation of PCV valve deposits in gasoline engines
- Contains anti-wear agents to enhance engine life

### APPLICATIONS:

- Allison C-4 (SAE 10, 30 and 50)
- Caterpillar Transmission TO-2
- Mack (EO-K, EO-K/2)
- MIL-L-2104G (SAE 10, 30, 40)
- MIL-L-46152 (SAE 30)

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Consult your owner's manual for the proper viscosity grade to use in the following engines:

- Caterpillar
- Cummins
- Detroit Diesel
- Deutz
- Fiat-Allis
- Ford
- GMC
- International
- Isuzu
- Case
- John Deere
- Komatsu
- Kubota
- Mack
- M.A.N.
- Mercedes Benz
- Mitsubishi
- Navistar
- Scania
- Volvo

### PACKAGING:

Totes, Drums, Pails, Gallons, Quarts

## Typical Properties

Royal Diesel Supreme Plus Monograde						
Product Number	101	102	103E	104F	105	Test Method
SAE Grade	10	20	30	40	50	-
Viscosity@40°C cSt	38.11	59.52	96.2	178.3	199.3	ASTM D445
Viscosity@100°CcSt	6.307	8.355	11.4	14.65	18.57	ASTM D445
Viscosity Index (VI)	114	111	106	104	103	ASTM D2270
API	30.37	29.05	28.11	27.47	27.52	
Specific Gravity	0.8742	0.8813	0.8866	0.8901	0.8898	ASTM D4052
Density	0.8737	0.8809	0.8861	0.8896	0.8893	
Pour Point °C	-27	-24	-21	-18	-21	ASTM D97
Lbs/Gal	7.28	7.34	7.38	7.41	7.41	
Flash Point °C	190	207	221	236	237	ASTM D92
Color	<7.5	<7.5	<7.5	<7.5	<7.5	ASTM D1500

*Typical Properties are typical of those obtained with normal production tolerance and do not constitute essentially a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice.*

### Health and Safety:

When used for its intended application, this product is not expected to have any adverse health implications. For complete information on safe handling, as well as physical and chemical characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website, [www.royalmfg.com](http://www.royalmfg.com), or call 918-584-2671. Do not use this product for purposes other than its intended use. Please be responsible to the environment when disposing of used product.