## **Product Information**



## Monolec<sup>®</sup> Engine Oil (8700, 8730)

### Offers Dependable, Heavy-Duty Performance in Diesel Engines

Monolec<sup>®</sup> Engine Oil provides excellent service for engines in mobile equipment and stationary generators. With its formulation of select base oils, shear-stable viscosity improver and Monolec<sup>®</sup>, LE's exclusive wearreducing additive, Monolec Engine Oil offers increased fuel efficiency, dependable performance and wear protection.

#### **Beneficial Qualities**

#### **Cost-Saving Service**

- Reduces oil consumption
- Increases fuel efficiency
- Improves reliability and minimizes downtime

#### Wear Prevention & Protection

- Includes synergistic blend of high-quality base oil and oxidation inhibitors to prevent excessive thickening and deposit formation
- Contains combination of wear-reducing agents
  - <sup>o</sup> Provides maximum wear prevention
  - ° Extends engine life
  - Keeps engine parts clean with heavy-duty detergents and dispersants

#### **All-Weather Performance**

- Provides good viscosity properties in all weather
  - Ensures minimal drag during low-temperature startups
  - Effectively lubricates at high temperatures

#### **Emissions Reduction**

- Works in conjunction with EGR engines to manage soot and other exhaust contaminants
- Low SAPS formula minimizes poisoning of SCR systems and particulate filtration traps



#### **Proprietary Additives**

LE's proprietary additives are used exclusively in LE lubricants. Monolec<sup>®</sup> Engine Oil contains Monolec.

Monolec<sup>®</sup> wear-reducing additive creates a single molecular lubricating film on metal surfaces, vastly increasing oil film strength without affecting clearances. An invaluable component in LE's engine oils, industrial oils and many of its other lubricants, Monolec allows opposing surfaces to slide by one another, greatly reducing friction, heat and wear.



# **Technical Data**



### **Monolec® Engine Oil**

	8700	8730
Color	Amber	Amber
SAE Grade	15W-40	10W-30
Relative Density @ 60°F/60°F, ASTM D1298	0.8713	0.8674
Viscosity @ 100°C, cSt, ASTM D445	15.20	12.33
Viscosity @ 40°C, cSt, ASTM D445	114.70	85.94
Viscosity Index ASTM D2270	138	139
Viscosity-HTHS @ 150°C, cP, ASTM D4683	4.02	3.5
Viscosity-CCS @ -20°C, cP, ASTM D5293	4,930	-
Viscosity-CCS @ -25°C, cP, ASTM D5293	-	5,856
Viscosity-MRV TP-1 @ -25°C, cP, ASTM D4684	18,600	-
Viscosity-MRV TP-1 @ -30°C, cP, ASTM D4684	-	19,260
Flash Point °C (°F), (COC), ASTM D92	221 (430)	221 (430)
Pour Point °C (°F), ASTM D97	-31 (-24)	-36 (-33)
Ash—Sulfated %, ASTM D874	1.00	1.00
Acid Number mg KOH/g, ASTM D664	3.25	3.26
Base Number ASTM D2896	9.0	9.0

#### **Performance Requirements Met or Exceeded**

- API-SAE Service CK-4
- ACEA E9-2012, E7
- Caterpillar ECF-3,ECF-2
- Cummins CES 20086, CES 20081
- Daimler MB 228.31
- Detroit Diesel DFS 93K222, DFS 93K218
- Ford WSS M2C171-F1
- Mack EOS-4.5, EO-O Premium Plus, EO-N
- Man M3575
- MTU Category 2.1
- Renault RLD-4, RLD-3
- Volvo VDS-4.5, VDS-4, VDS-3

#### **Typical Applications**

- Diesel engines (fleet)
  - On- and off-road mobile equipment, including overthe-road tractor trailers, pickup trucks, construction equipment, farming equipment and more
  - Specially formulated for low-emission and ultra low sulfur diesel (ULSD) engine and backwards compatible for use in older diesel engines
- Diesel engines (industrial)
  - Stationary generators

#### Recommendations

- Compatible for use with diesel particulate filters
- Not for use with silver alloy bearings such as EMD engines (Electro-Motive Division of GM)

Monolec<sup>®</sup> is a registered trademark of Lubrication Engineers.

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