

# Product Information



## Monolec Ultra® Engine Oil (8800-8801, 8130-8131)

### **Extended-Drain CK-4 Oil Offers Ultimate Package of Performance & Protection for Diesel Engines**

Monolec Ultra® Engine Oil (8800-8801 & 8130-8131) provides exceptional performance and extended-drain service for on- and off-road diesel engines, including stationary engines. It has been formulated to exceed API's CK-4 technology standards focusing on engine wear protection, oxidation stability, shear stability, resistance to aeration, and compatibility with low emission engines. With its superior formulation of select base oils and Monolec®, LE's exclusive wear-reducing additive, Monolec Ultra offers dependable all-weather performance, reduces unscheduled downtime, and helps fleets achieve costs savings.



#### **Beneficial Qualities**

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

- Extends oil drain intervals\* with specified filter changes and periodic oil analysis (ask your LE consultant about the Xamine® Oil Analysis Program)
- Reduces oil consumption
- Improves fuel economy
- Protects against engine wear, extending life

##### **Premium Performance**

- Protects against deposits, keeping engine parts clean
- Neutralizes acids generated from oxidation, preventing corrosive damage
- Prevents thermal degradation, loss of lubricity and engine cavitation with improved aeration control
- Decreases engine noise

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

- Maintains viscosity at high and low temperatures
- Allows oil flow at extremely cold temperatures
- Ensures minimal drag during cold startups
- Effectively lubricates at high temperatures

##### **Greener Technology**

- Specially formulated to meet API CK-4 standards for low emission engines
- Compatible for use with biodiesel-containing fuels
- Compatible for use in vehicles equipped with diesel particulate filters
- 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 Additive**

LE's proprietary additives are used exclusively in LE lubricants. Monolec Ultra® Engine Oil contains Monolec.

**Monolec** 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.

\*For mobile applications, intervals can be extended up to 100,000 miles or more.





## Monolec Ultra® Engine Oil

|   | <u>8800/8801*</u> | <u>8130/8131*</u> |
|---|-------------------|-------------------|
| <b>Color</b>                                      | Red/Amber         | Red/Amber         |
| <b>SAE Grade</b>                                  | 15W-40            | 10W-30            |
| <b>Relative Density @ 60°F/60°F, ASTM D1298</b>   | 0.876             | 0.865             |
| <b>Viscosity @ 100°C, cSt, ASTM D445</b>          | 15.25             | 12.22             |
| <b>Viscosity @ 40°C, cSt, ASTM D445</b>           | 113.2             | 83.3              |
| <b>Viscosity Index ASTM D2270</b>                 | 141               | 142               |
| <b>Viscosity-HTHS @ 150°C, cP, ASTM D4683</b>     | 4.0               | 3.5               |
| <b>Viscosity-CCS @ -25°C, cP, ASTM D5293</b>      | -                 | 6,235             |
| <b>Viscosity-CCS @ -20°C, cP, ASTM D5293</b>      | 4,635             | -                 |
| <b>Viscosity-MRV TP-1 @ -30°C, cP, ASTM D4684</b> | -                 | 21,860            |
| <b>Viscosity-MRV TP-1 @ -25°C, cP, ASTM D4684</b> | 17,840            | -                 |
| <b>Flash Point °C (°F), (COC), ASTM D92</b>       | 221 (430)         | 221 (430)         |
| <b>Pour Point °C (°F), ASTM D97</b>               | -31 (-24)         | -36 (-33)         |
| <b>Copper Corrosion 3 hrs @ 100°C, ASTM D130</b>  | 1b                | 1b                |
| <b>Ash—Sulfated %, ASTM D874</b>                  | 1.00              | 1.00              |
| <b>Acid Number mg KOH/g, ASTM D664</b>            | 3.46              | 3.21              |
| <b>Base Number ASTM D2896</b>                     | 10.0              | 10.0              |



\*8801 and 8131 are undyed

### Performance Requirements Met or Exceeded

- ACEA E7, ACEA E9-2012
- API-SAE Service CK-4, CJ-4, CI-4, CI-4 Plus, CH-4
- Caterpillar, ECF-2 and ECF-3
- 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

- On- and off-road diesel engines, including over-the-road tractor trailers, pickup trucks, construction and mining equipment, farming equipment, and more
- Stationary diesel engines, such as generators and irrigation pumps
- Backward compatible for use in older diesel engines

### Cautions

- Not for use in low-emission gasoline engines
- Not for use in engines with silver alloy bearings
- 8130-8131: When used in Cummins engines requiring oil that meets the CES 20078 spec, do so in coordination with a used oil monitoring program.