

# Product Information



## Monolec® Syn Gear Oil (9919 & 9923)

### **Robust Formula Provides Long-Lasting Protection in Severe Service, including High & Low Temperatures**

Monolec® Syn Gear Oil (9919 & 9923) is a 100 percent synthetic, limited slip gear oil with a high-performance additive package, making it an ideal choice for transmissions and differentials that encounter severe service conditions, including fleets of delivery trucks, heavy-duty pickup trucks, school buses, and bucket trucks. Its high-performance formula will not break down in severe service. It resists gear and bearing wear, viscosity loss, foaming, high-temperature oxidation, and volatility, allowing it to deliver long-lasting protection for any application where extreme pressure and shock loading is expected, including industrial gearboxes that require enhanced EP protection.

In addition, Monolec Syn Gear Oil's high-performance formula features a high viscosity index and low pour point that work together to provide high-temperature film thickness and low-temperature fluidity, allowing it to be used in a wide range of environments – from very hot to below freezing.



#### **Beneficial Qualities**

##### **Delivers Exceptional Limited Slip Performance**

- Eliminates “chatter” or “squawk” that results from improper lubrication of limited slip differentials
- Provides smooth engagement of friction plates
- Maintains limited slip performance throughout life of oil

##### **Provides Reliable, Long-Lasting Service**

- Resists shearing and maintains viscosity in service
- Remains thermally stable
- Prevents formation of carbon deposits
- Reduces operating temps by transferring heat from gears
- Protects gears from wear, heavy loads and shock loading

- Increases equipment reliability, reducing replacement and repair costs
- Suppresses foam

##### **Performs in High and Low Temperatures**

- Provides high-temperature oxidation resistance
- Is reliable for low-temperature startups
- Flows well at below freezing conditions

##### **Reduces Oil Consumption & Other Costs**

- Extends drain intervals due to long oil life
- Requires less make-up oil due to low volatility
- Reduces environmental impact with less waste oil for disposal
- Reduces maintenance and replacement costs by reducing wear

#### **Proprietary Additive**

LE's proprietary additives are used exclusively in LE lubricants. Monolec® Syn Gear 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.



# Technical Data



## Monolec® Syn Gear Oil

	<u>9919</u>	<u>9923</u>
<b>Color</b>	Green	Green
<b>SAE Grade</b>	75W-90	75W-140
<b>Relative Density @ 60°F/60°F, ASTM D1298</b>	0.871	0.891
<b>Viscosity @ 100°C, cSt, ASTM D445</b>	15.0	26.0
<b>Viscosity @ 40°C, cSt, ASTM D445</b>	100.0	190.0
<b>Viscosity Index ASTM D2270</b>	157	171
<b>Viscosity-Brookfield @ -40°C, cP, ASTM D2983</b>	<50,000	<150,000
<b>Flash Point °C (°F), (COC), ASTM D92</b>	226 (429)	220 (428)
<b>Pour Point °C (°F), ASTM D97</b>	-54 (-65)	-45 (-49)
<b>Copper Corrosion 3 hrs @ 100°C, ASTM D130</b>	1b	1b
<b>Timken OK Load lbs, ASTM D2782</b>	90	90
<b>FZG Scuffing Load Capacity Fail Stage, ASTM D5182</b>	>12	>12

### Important Note

- Not recommended where API GL-4 performance is required.

### Performance Requirements Met or Exceeded

- API GL-5
- API MT-1
- Service Fill Limited Slip
- USDA H2
- ZF TE-ML 07A
- ZF TE-ML 08

### Typical Applications

- Differentials & non-synchronized transmissions in:
  - ◊ Over-the-road fleets
  - ◊ Off-highway equipment
  - ◊ Stop-and-go vehicles
  - ◊ All trucks that fall within the DOT Gross Vehicle Weight Rating of Class 1 to Class 6.
- Industrial gearboxes and worm drives that:
  - ◊ Call for SAE 75W-90 gear oil (9919)
  - ◊ Call for SAE 75W-140 gear oil (9923)
  - ◊ Are subjected to low and/or high temperatures



Monolec® is a registered trademark of Lubrication Engineers, Inc.

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LE operates under an ISO 9001 Certified Quality System.

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