



# 9920 SYNOLEC® GEAR LUBRICANT

*An SAE 75W-140 heavy duty, 100% synthetic enclosed gear lubricant. Engineered to meet severe operating conditions. The only true 75W-140 synthetic gear lubricant available today.*

LE's 9920 Synolec Gear Lubricant is a heavy-duty synthetic gear lubricant specially formulated for transmissions and industrial gearboxes which operate in severe service and where service intervals may be prolonged. This lubricant offers very good high temperature oxidation resistance and thermal stability. Also, exceptional low temperature characteristics as well.

This SAE 75W-140 synthetic gear lubricant contains a 100% synthetic base fluid which is compounded with long lasting, extreme pressure additives, designed solely for synthetic gear lubricants and will provide you with benefits of unmatched superiority. LE's 9920 Synolec Gear Lubricant meets the increased demands placed upon heavy-duty rolling stock transmissions, differentials and industrial gearboxes.

## USER BENEFITS

- Longer Equipment and Gear Life - With LE's 9920 Synolec Gear Lubricant, your equipment will last longer and you will reduce capital expenditures through:
- Reduced Wear - with Monolec, LE's exclusive wear-reducing additive plus other EP additives yield a high Timken OK load of 65 lbs (29.5 Kgs). This true SAE 75W-140 lubricant provides a tough film strength with no shearing. No viscosity improvers are employed to achieve the multigrade characteristics.
- Longer Effective Lubricant Life - is achieved through enhanced low volatility as well as excellent thermal stability. This assures that this lubricant provides long lasting lubrication when compared with petroleum products without forming carbon deposits. In severe service, this is critical because this lubricant will not break down.
- Lower Maintenance and Replacement Costs - are achieved through reduced wear, lower operating temperatures and longer oil life. This translates into extended drain intervals vs. ordinary oils, lower maintenance costs, parts and labor costs and reduced capital outlay as your equipment lasts longer.
- Versatility of One Product - because this product meets the AGMA 5EP and 6EP specifications. This will, of course, reduce inventory and reduce the chance of application error.
- Cold Weather Capabilities - are realized because of the improved subzero flow properties. With a -49°F (-45°C) pour point, low temperature start-up and lubrication is assured.
- Exceeds Requirement - for MIL-L-2105D, U.S. Steel 224, AGMA 9005-D94, API GL-5, Rockwell O-76-B and Mack GO-J.

## TYPICAL APPLICATIONS

- Transmissions and Differentials for:
  - Over-the-road vehicles.
  - Heavy-duty rolling stock.
  - Large stop-and-go vehicles.
  - Off-road equipment.
- Industrial Gearboxes and Worm Drives which:
  - Are subjected to low and high temperatures, such as freezer units and paper drums.
  - Call for an AGMA 5EP or a 6EP lubricant.

## WHAT IS MONOLEC?

Monolec is LE's exclusive wear-reducing additive which has proven its extraordinary performance in thousands of applications. It is an invaluable component in LE's engine oils, industrial oils and other lubricants proudly bearing the Monolec trademark.

Monolec creates a singular molecular lubricating film on the metal surface, vastly increasing film strength without affecting tolerances. Monolec allows opposing surfaces to slide by one another, greatly reducing frictional heat and wear.



**LUBRICATION ENGINEERS, Inc.**  
LEADERS IN LUBRICANTS

LE operates under an ISO 9001  
Certified Quality System.

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# LE's 9920 SYNOLEC® GEAR LUBRICANT

## far surpasses requirements of the most current performance tests

Performance Tests	9920 SYNOLEC GEAR LUBRICANT	MIL-L-2105D Requirement
<b>CRC L-60-1 (Thermal Stability)</b>		
Viscosity Increase, %	44.40	100 Max.
Pentane Insolubles, %	0.72	3 Max.
Toluene Insolubles, %	0.58	2 Max.
Result	Pass	Pass
<b>CRC L-37 (High Torque Gear Test)</b>		
Plain Gear	Pass	Pass
Coated Gear	Pass	Pass
<b>CRC L-42 (Gear Score Protection)</b>		
Run 1, Tooth Area Scored	1%	15-20% Max.
Run 2, Tooth Area Scored	Trace	15-20% Max.
Result	Pass	Pass
<b>CRC L-33 (7-Day Moisture Corrosion)</b>		
Cover Plate Corrosion	None	5% Max.
Other Parts	No Corrosion/Light Stain	No Corrosion
Result	Pass	Pass
<b>ASTM D892 (Foaming Tendencies)</b>		
Sequence I, ml	10	20 Max.
Sequence II, ml	30	50 Max.
Sequence III, ml	10	20 Max.
Result	Pass	Pass
<b>ASTM D130 (Copper Corrosion)</b>		
(3 hrs., 121°C.)	1 lb	3 Max.
Result	Pass	Pass

Not recommended for use in automatic, semi-automatic or hydraulic transmissions requiring pure mineral oil.



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# TECHNICAL DATA BULLETIN

## 9920 Synolec® Gear Lubricant

### DESCRIPTION:

Specially formulated heavy duty synthetic gear lubricant. Made with 100% synthetic base fluid for excellent low and high temperature performance. Contains Monolec®, LE's exclusive wear-reducing additive.

LE's 9920 Synolec is a true SAE 75W-140 grade lubricant. Viscosity index improvers are not used to achieve the multi-grade characteristics. The SAE 75W-140 meets the low and the high temperature requirements of the SAE lubricant viscosity classification J-306. That is, it conforms with the SAE 75W requirement at low temperatures and is in the range required by SAE 140 at high temperatures. The exclusive Monolec additive formulation blended with the SAE 75W-140 synthetic base stocks provides energy savings with reduced fuel consumption.

LE's 9920 Synolec exceeds requirements for MIL-L-2105D, U.S. Steel 224, AGMA 9005-D94, API GL-5, Rockwell O-76-B and is GO-J approved by Mack.

### PHYSICAL CHARACTERISTICS – TYPICAL:

USDA	H2
SAE Grade	75W-140
Gravity, °API	31.9
Viscosity	
SUS @ 100°F	920.8
SUS @ 210°F	121.5
cSt @ 40°C	180.3
cSt @ 100°C	24.8
cP @ -40°F (-40°C)	150,000 max.
Viscosity Index, min.	165
Flash Point, °F (°C)	370 (188)
Pour Point, °F (°C)	-49 (-45)
Color	Green

### PERFORMANCE TEST RESULTS:

Cooper Strip Corrosion, ASTM D130	1b
Timken EP, ASTM D2782, lbs.	65
Foam Test, ASTM D892	Pass
Seven Day Moisture Corrosion, CRC L-33	Pass
High Torque Gear, CRC L-37	Pass
Gear Score Protection, CRC L-42	Pass
Thermal Stability, CRC L-60-1	Pass

### MEETS PERFORMANCE SPECIFICATIONS OF:

API GL-5	MIL-L-2105D
AGMA 9005-D94	Rockwell O-78-B
Diamond Power Soot Blowers	US Steel 224
Falk – 5, 6 & 7EP	
Mack Go-J	

### APPLICATION:

Use in transmissions, except those requiring pure mineral oil on over-the-road, stop-and-go fleets and off-highway equipment. Especially appropriate for severe service and where service may be longer than normal because equipment is away from base terminal. Use in industrial gearboxes that call for SAE 75W to SAE 140 gear oil. Excellent for industrial gearboxes subjected to low and high temperatures.

## LUBRICATION ENGINEERS, Inc.®

## **BENEFICIAL QUALITIES:**

Specially formulated heavy duty synthetic enclosed gear lubricant.

100% synthetic base fluid, compounded with long-lasting extreme pressure (EP) additives.

USDA Rated H2.

Highly versatile SAE 75W-140 lubricant meeting the requirements of AGMA 9005-D94.

Contains Monolec<sup>®</sup>, LE's exclusive wear-reducing additive proven in radioactive wear tests to reduce wear by 24.2%.

Green trace color.

Good high temperature oxidation resistance and thermal stability.

Exceptional low temperature characteristics.

Low volatility.

These unique features of LE's 9920 Synolec Gear Lubricant provide the user with benefits of unmatched superiority.

Greater stability, also contributing to long service life through enhanced oxidation stability and gear load carrying ability.

A true 75W-140 lubricant with no viscosity loss as a result of mechanical shearing in service.

Excellent heat transfer through use of SAE 75W-140 synthetic base fluid.

High load carrying capacity through use of proprietary extreme pressure additives.

Fully synthetic product eliminates formation of carbon deposits.

Much improved subzero weather flow properties, with dependable lubrication in low temperature start-up conditions.

Assures increased wear protection through use of LE's Monolec additive.

Reduced lubricant consumption through low volatility and excellent oxidation stability.