



## Renewable Lubricants, Inc.

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### Bio-E.P.™ 80W90 Gear Oil GL-4



### *"Biobased Lubricants that Perform Like Synthetics"*

Bio-E.P.™ 80W90 Gear Oil is designed to meet the GL-4 requirements of spiral bevel transmission and moderate service hypoid gears. In industrial applications, it can be used as an Multi-Viscosity EP Gear Oil for lubricating spur, helical, bevel, and worm gear configurations where a multi-grade 80W90 can replace ISO 150 or 220 for cold temperature applications. This formula has combined Stabilized HOBS technology with synthetic base stocks and mild EP/antiwear additives. The result is an ultimately biodegradable<sup>1</sup> product which has the long life heat stability but which additionally offers the protection advantages of increased gear life through extremely high film strength and excellent low temperature performance. Bio-E.P.™ 80W90 Gear Oil is an ENVIRONMENTALLY RESPONSIBLE lubricant that is formulated from renewable agricultural plant resources. We believe Earth's environmental future rests in the use of renewable material.

#### Typical Specifications

|   |              |
|---|--------------|
| <b>SAE Gear Grade</b>                           | <b>80W90</b> |
| Specific Gravity @60°F (D-287)                  | 0.92         |
| VISCOSITIES:                                    |              |
| @100°C., cSt. (D-445)                           | 19.2         |
| @40°C., cSt. (D-445)                            | 121          |
| Viscosity Index (D-2270)                        | 180          |
| Flash Point, COC, °C (D-92)                     | 280          |
| Pour Point, °C (D-97)                           | -30          |
| Copper Corrosion Strip 3hr @ 100°C (D-130)      | 1A           |
| 4 Ball Wear, 1h, 167°F, 1200 RPM, 40kg (D-4172) | .30          |
| FZG Test (DIN 51517)                            | >12          |
| Demulsibility (D-2711)                          | Pass         |
| Foam Sequence I, II, III (D-892)                | Pass         |
| Rust Prevention (D-665 A&B)                     | Pass         |
| RLI Product Item #                              | 82100        |

#### Features

- (1) API Service Classifications GL-3, GL-4
- (2) Super high viscosity index and low pour point for wide temperature usage
- (3) Fortified with additives to resist wear, oxidation, rust and foam
- (4) Exceeds U.S. Steel and AGMA wear and EP performance

STABILIZED by Renewable Lubricants\* is RLI's trademark on their proprietary and patented anti-oxidant, anti-wear, and cold flow technology. High Oleic Base Stock (HOBS) are agricultural vegetable oils. This Stabilized technology allows the HOBS to perform as a high performance formula in high and low temperature applications, reducing oil thickening and deposits.

<sup>1</sup> Ultimate Biodegradation (Pw1) within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants

Patented Product: US Patent 6,383,992, US Patent 6,534,454 with additional Pending and Foreign Patents

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|---------------------|-------------------------------------|-----------------|----------------------|-------------|--------------|-------------|
| <b>Availability</b> | <b>F.O.B. :Hartville, Ohio, USA</b> | <b>1 Gallon</b> | <b>5 Gallon Pail</b> | <b>Drum</b> | <b>Totes</b> | <b>Bulk</b> |
| RLI Item #          |                                     | 82103           | 82104                | 82106       | 82107        | 82109       |