



Renewable Lubricants, Inc.

Distributed By: DM's Bio-Based Fluid Supply Inc.
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Bio-E.P.™ Wire Rope Lubricants



"Bio-based Lubricants that Perform Like Synthetics"

RLI's Bio-E.P.™ Wire Rope Lubricants are ultimately biodegradable¹ vegetable oils formulated with antiwear, extreme pressure (EP), anti-rust, oxidation inhibitors, and a tackifier. They are recommended for lubricating multi-strand cables and wire rope wound around central cores of steel or fiber, which are subject to heavy loading and/or shock loading. These biobased products provide improved fire resistance over equal viscosity petroleum products and contain no chlorine, zinc, or heavy metals. Performance is enhanced by use of the Stabilized HOBS's natural vegetable oil composition, which provides an oily boundary film. In addition, this oily film has a natural polarity to metal surfaces and helps clean and then penetrates deep into the inner core of the cable preventing rust and wear. The super high viscosity index of the Stabilized HOBS adds additional lubrication qualities to this high performance lubricant. Laboratory and field tests have shown that the products provide exceptional protection with excellent cold temperature pumpability.

Applications: Bio-E.P.™ Wire Rope Lubricants are specifically designed to provide high anti-wear, EP, and anti-rust protection. They protect cables, pulleys, sliding surfaces, and threads against damage from corrosion, galling or seizure. Other applications including: chains, slideways, and hinge pins. Field applications can be applied by spray, brush, dip, drip, or pressure boot.

These bio-based products have exceptional benefits over petroleum-based lubricants because there is direct danger of polluting the air, water, soil, or work environment through loss of the lubricant. Bio-E.P.™ Wire Rope Lubricants are **ENVIRONMENTALLY RESPONSIBLE** lubricants that are formulated from renewable agricultural plant resources. We believe Earth's environmental future rests in the use of renewable material.

Typical Specifications

	ASTM	Light 10W20	Medium 10W30	Heavy 15W50	Extreme Heavy 20W60
<u>SAE Viscosity Grade</u>					
ISO Viscosity Grade Replacement		46	68	100	150
Specific Gravity @60°F	D-287	.88	.888	.907	.907
VISCOSITIES:	D-445				
@100°C., cSt.		8.65	12	18.2	26.1
@40°C., cSt.		43.74	62.9	95	147
Viscosity Index	D-2270	181	191	212	213
Flash Point, COC, °C	D-92	260	272	288	290
Pour Point, °C	D-97	-36	-33	-30	-24
Copper Strip Corrosion (3h@100°C)	D-130	1B	1B	1B	1B
4-Ball Wear (mm)	D-4172	0.35	0.35	0.35	0.35
4-Ball EP	D-2783				
Weld Point (kg)		400	450	450	450
Load Wear Index		55	58	58	58
Timken Load, OK Load (lbs)	D-2782	70	70	70	70
Rust Prevention	D-665				
A-Distilled water		Pass	Pass	Pass	Pass
B-Syn. Sea water		Pass	Pass	Pass	Pass
Cabinet Humidity	D-1748	> 60 days	> 60 days	> 60 days	> 60 days
Salt Fog Corrosion	B-117	>60 hrs.	>60 hrs.	>60 hrs.	>60 hrs.

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.

¹ 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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Availability **F.O.B. :Bolton, ON, Canada** **5 Gallon Pails** **Drums**