



Renewable Lubricants™, Inc.

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Bio-Penetrating Lubricant™ (BPL™)



"Biobased Lubricants that Perform Like Synthetics"

A specially formulated, ultimately biodegradable¹ penetrant that can be used as a light lubricant. Because of the super high viscosity index of the HOBS, this product performs in many applications. BPL™'s patented composition of additives and base fluids provides a protective, thin film lubricant. This natural oily film has shown in laboratory and field tests to outperform petroleum base oils in terms of natural lubricity.

BPL™ is formulated to penetrate into close tolerant areas, then lubricate, and prevent corrosion. BPL™'s ability to creep is demonstrated by placing a 3/8" x 2" bolt on its head with 1/4" of BPL in the bottom of a lab beaker; BPL™ creeps vertically up the threads. It protects deep into the core of a cable or chain link and is excellent as a light air tool lubricant and preservative oil for parts. BPL™ contains no VOCs, displaces moisture, and provides a high dielectric (47 kV ASTM D-877) insulating property in electrical equipment. BPL™ has exceptional benefits over petroleum oils in these applications because there is direct danger of polluting the water, soil, or work environment through loss of the petroleum lubricant.

Applications - Military - Industrial - Transportation - Marine - Agricultural

Tools	Machine Tools	Bearings	Bolts
Jacks	Assembly Parts	Wire ropes	Chains
Dies	Shafts	Hinges	Firearms
Locks	Linkage Cables	Air Valves	Air Tools

Typical Data

Specific Gravity @60°F.	ASTM D-287	.871
Viscosity @40°C., cSt.	ASTM D-445	13.
Flash Point, PMCC	ASTM D-93	295°F (146°C)
Pour Point (Rotational)	ASTM D-5985	-30°C
Four Ball Wear	ASTM D-2266	.40 mm
Copper Corrosion Prevention	ASTM D-130	1A
Rust Prevention	ASTM D-665	
Distilled Water		Pass-Clean
Synthetic Sea Water		Pass-Clean

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, US Patent 6,624,124, US Patent 6,620,772 with additional Pending and Foreign Patents

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Availability F.O.B.: Hartville, Ohio, USA

**New Size 11 oz Aerosol Spray Can BPL	<u>12oz. Spray</u>	<u>1 Gallon</u>	<u>5 Gallon Pails</u>	<u>Drums</u>	<u>Bulk</u>
Item # 80002	80011	80003	80004	80006	

Bio-Penetrating Lubricant™ (BPL™) See Data Sheet

BPL™ is a product that everyone needs. It performs as a penetrant, but best of all, it is a multifunctional product. BPL™ is an excellent lubricant as shown in, ASTM D-2266 4 ball wear test .40 mm scar wear, and passes clean (no rust) on ASTM D-665 both A and B corrosion test. BPL™ product applications include corrosion inhibitor/preservative oil for outside applications or in the inner plant production work area for protecting parts. Because it lubricates, it can be used for metalworking, fabricating, assembly oils, and to protect dies and molds from corrosion and wear. Another area includes chain and cable lubrication – it penetrates deep into the inner core of the cable or chain link, preventing rust and wear. It has the right formulation to be an excellent, light air tool oil and spindle oil for high speeds. BPL™ can be used to protect guns and tools (passes salt water corrosion protection ASTM D-665) and it tests excellent on yellow metals (passes copper strip corrosion ASTM D-130 test 1A). The advantages are many: biodegradable, renewable, low toxicity, environmentally non-toxic, contains no hazardous Volatile Organic Compounds (VOCs), safer, helps secure the American Economy, reduces our dependence on foreign oils, and multi-performance. EPA, OSHA, and Workers Acceptance is high with Biobased Products.

Renewable Lubricants offers many additional BPL™ products to meet your needs:

BPL™ Plus Tack (Lubricant & Corrosion Inhibitor)

The addition of a food grade tackifier provides adhesiveness to the performance of BPL™. Some applications and environmental conditions may require an additional tacky surface film that protects equipment from corrosion. The tackifier added to BPL™ helps meet this requirement and also holds the lubricant to the surface of moving parts and improves anti-wear.

BPL™ Plus Moly + Tack (Chain & Cable Lubricant)

BPL™ Plus Moly with Tackifier has performance advantages in some applications such as high speed roller chains, cables, and moving parts. This product penetrates rapidly and adheres to the application, forming a lubricating film that cannot be wiped away by extreme pressures and high speeds. It protects metal surfaces from rust and corrosion that are exposed to environmental conditions. The molybdenum disulfide (Moly) provides an extreme pressure lubricant that reduces friction and wear.

BPL™ Plus Moly (Chain & Cable Lubricant)

A specially formulated, Biobased, Penetrating Lubricant that provides a protective Moly film to sliding surfaces, but is more resistant to dust and dirt than the BPL™ products with tackifier.

BPL™ Food Grade (Meets USDA-H1)

BPL Food Grade™ is specially formulated and packaged for use as a food grade lubricant.

BPL™ Modified

Additive composition and surface tension of BPL™ can be modified for special customer's needs. BPL Modified™ products are used for metalworking, fabricating, corrosion inhibitors/preservative oils, etc.

Replace your WD-40 and LPS with BPL

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