



Renewable Lubricants, Inc.

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Bio-Firearm Lubricant CLP

(MIL-PRF-63460E)



"Biobased Lubricants that Perform Like Synthetics"

Bio-Firearm Lubricant CLP (CLEANER, LUBRICANT, AND PRESERVATIVE) is a specially formulated ultimately biodegradable¹ light lubricant that was developed to provide lubrication in a wide range of temperatures, with exceptional performance in extreme subzero temperatures. This product is for use in cleaning, lubricating and preservation of small and large caliber military weapons, operating in the temperature range of -51 to + 71 °C (-60 to +160 °F).

The Stabilized* bio-synthetic base oils are formulated with the proper additive technology to lubricate into close tolerant areas and prevent corrosion. In addition, this lubricant can help clean and prevent deposits from forming that cause weapons to jam. The Bio-Firearm Lubricant CLP provides very low temperature performance (pour point below -75°F), that prevents deposits from forming, firing pin misfires, and mechanism jamming. The improved performance of Bio-Firearm Lubricant CLP is a benefit in all firearms, but is especially noticeable with automatic weapon. This improved performance will provide smoother mechanical action that is also noticeable in automatic weapons at temperatures below freezing and provide superior lubrication at very high temperatures where conventional lubricants fail. It is a multi-functional high performance lubricant that can be used in many industrial applications. Because of its biodegradability, this product has exceptional benefits over petroleum oils in these applications when there is direct loss of the lubricant into the water, soil, or work environment.

Typical Data

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|---|-------------|-----------------|
| Viscosity, Kinematic @ 40 °C | ASTM D-445 | 14.5 cSt |
| Viscosity, Kinematic @ -40 °C | ASTM D-445 | < 5000 cSt |
| Flash Point, (COC) | ASTM D-92 | 320 °F (160 °C) |
| Pour Point | ASTM D-97 | -62°C |
| 4-Ball Wear, 1h, 167°F, 1200 RPM, 40 kg | ASTM D-4172 | 0.5 |
| Pin and Vee Block Test | ASTM D5620 | > 500 lb. |
| Biobased Content | Calculated | 52% |

Bio-Firearm Lubricant CLP meets the Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for Environmentally Acceptable Lubricants (EALs), and should be used where **LOW TOXICITY**, **BIODEGRADABILITY** and **NON-BIOACCUMULATION** properties are required. It exceeds the acute toxicity (LC-50 / EC-50 >100 ppm) criteria adopted by the US Fish and Wildlife Service and the US EPA. Bio-Firearm Lubricant CLP is an **ENVIRONMENTALLY RESPONSIBLE** lubricant that is formulated from renewable agricultural biobased resources. We believe Earth's environmental future rests in the use of renewable materials.

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

STABILIZED by Renewable Lubricants* is RLI's trademark on their proprietary and patented anti-oxidant, anti-wear, and cold flow technology. Patented Product: US Patent 6,383,992, US Patent 6,534,454 with additional Pending and Foreign Patents
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