

Renewable Lubricants, Inc.

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Bio-General Purpose™ Cut 30 & 40

(Cutting Oil and Machine Lube)



"Biobased Lubricants that Perform Like Synthetics"

Bio-General Purpose™ Cut oils are ultimately biodegradable¹, biobased lubricants for light to medium duty machining operations. Their color can be classified as transparent, which permits viewing the cutting operations while in process and they are formulated to reduce smoke and mist. Performance is enhanced by use of the Stabilized HOBS's, natural fatty acid composition, which provides cutting tool wetting and oiliness; combined with excellent extreme pressure and antiwear technology. The super high viscosity index of the Stabilized HOBS adds additional load carrying properties in machining application. They are non-staining to yellow metals and may be used for machining both ferrous and non-ferrous metal alloys. These (Biopreferredsm,) products do not contain active sulfur, chlorine, zinc, phosphorus, silicon, or heavy metals, and do not produce an abrasive odor. Bio-General Purpose Cut oils extreme pressure properties can be increased by the addition of Bio-Syntra™ and Bio-SynXtra™ MW Oils (see data sheets for Bio-Syntra™ and Bio-SynXtra™ products). The flexibility of these products helps in reducing inventory and lowering cost.

The advantages are many: biodegradable, renewable, low toxicity, no hazardous volatile organic compounds (VOC), more fire resistant, safer, EPA and ISO 14000 compliant, reduces foreign oil, and helps secure the American Economy, OSHA and worker acceptance is high with biobased oils.

Bio-General Purpose™ oils are ENVIRONMENTALLY RESPONSIBLE lubricants that are formulated from renewable agricultural plant resources. We believe Earth's environmental future rests in the use of renewable materials.

Typical Specifications

<u>Grade</u>	<u>30</u>	<u>40</u>
Specific Gravity @60°F.	.89	.90
VISCOSITIES:@ 100°C., cSt.	7.0	9.0
@40°C., cSt.	29.2	40.0
Viscosity Index	215	216
Flash Point, COC ^o C	218	240
Pour Point, ^o C	-16	-18
Copper Corrosion ASTM D-130	1B	1B
Rust Prevention ASTM D-665	No Rust	No Rust
4-Ball Wear ASTM D-4172 (mm)	.40	.35
4-Ball EP Weld Pt. ASTM D-2783 (kg)	250	315
Load Wear Index	36	41
RLI Product Item #	86820	86830

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.

Patented Product: US Patent 6,383,992, US Patent 6,534,454, 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 1 Gallon 5 Gallon Pail Drum

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

^{*} Trademark of Renewable Lubricants, Inc.