Renewable Lubricants, Inc.
476 Griggy Rd., P.O. Box 474
Hartville, Ohio 44632-0474

Bio-Mist™ EP Cutting Oil

(ISO 32)

Biobased, Heavy-Duty Mist-Cutting Oil for High-Performance Machining

Bio-Mist™ EP Cutting Oil is a heavy-duty, ultimately biodegradable, biosynthetic-blend cutting oil designed for misting and standard cutting applications. Engineered for use on non-ferrous metals, ferrous alloys, stainless steels, and hard-to-machine materials such as Inconel and Hastelloy, it delivers superior lubrication and tool life. Formulated with Stabilized™ HOBS technology and EP additives, this product meets the demands of high-speed and high-load machining operations while remaining safe for workers and the environment.

Benefits

- Readily biodegradable, non-toxic, not bioaccumulative
- Excellent performance in misting systems and conventional machining
- Non-staining; no sulfur, chlorine, zinc, phosphorus, or heavy metals
- Reduced odor, mist, and smoke for improved operator safety
- Exceptional lubricity and tool life for hard-to-machine materials
- Compliant with EPA 2013 VGP for Environmentally Acceptable Lubricants (EALs)
- Exceeds acute toxicity requirements: LC-50 / EC-50 > 1000 ppm
- Promotes cleaner work environments and reduced foreign oil dependency

Application / New Filling

- Ideal for:
  - Milling, drilling, turning, grinding, broaching
  - Thread cutting and tapping
  - Machining of stainless steel, tool steels, Inconel, Hastelloy
- Designed for use in misting and direct application systems
- Compatible with ferrous and non-ferrous materials

Specifications and Approvals

- EPA VGP 2013 (EAL Compliant)
- ASTM D-5864: Ultimate Biodegradable
- OECD 301 Readily Biodegradable
- Contains patented Stabilized™ HOBS technology for high-temperature, anti-wear, and cold-flow performance
- U.S. Patents: 6,383,992; 6,534,454; 6,624,124; 6,620,772 (with others pending)

Typical Specifications

ISO Grade	32
VISCOSITIES:	
@100 ^{O}F SUS	145
@40^{O}C., cSt.	31.3
@100^{O}C., cSt.	7.3
Viscosity Index	211
Flash Point (COC)	204 ^{O}C (400 ^{O}F)
Pour Point, ^{O}C.	-14
Copper Corrosion ASTM D-130	1B
4-Ball EP ASTM D-2783	
Non-Seizure Load kg	126
Weld Load kg	800
Load Wear Index	152
Rust Prevention ASTM D-665	No Rust
Tapping Test	
304 Stainless Steel, % Efficiency	125
1020 HR Steel, % Efficiency	120
Falex EP Test, (Fail load lbs.)	4250

Bio-Mist™ EP Cutting Oil meets the Environmental Protection Agency (EPA) Vessel General Permit (VGP) guidelines for Environmentally Acceptable Lubricants (EALs), and should be used in applications where **LOW TOXICITY**, **BIODEGRADABILITY** and **NON-BIOACCUMULATION** properties are required. It exceeds the acute toxicity (LC-50 / EC-50 >1000 ppm) criteria adopted by the US Fish and Wildlife Service and the US EPA. Bio-Mist™ EP Cutting Oil is an **ENVIRONMENTALLY ACCEPTED LUBRICANT** that is formulated from renewable biobased resources. We believe Earth's environmental future rests in the use of renewable materials.

[1]Ultimate 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. This Stabilized technology allows the HOBS to perform as a high performance formula in high and low temperature applications, reducing oil thickening and deposits.

Availability F.O.B.: Hartville, Ohio, USA	1 Gal	5 Gal Pail	Drum	Totes	Bulk
RLI Product Item #	86733	86734	86736	86737	86739