

Bio-Drip™ Oils

(ISO 32, 46, 220)

Bio-Drip™ Oils are fully formulated, ultimately biodegradable biosynthetic-blend lubricants designed for use in drip lubrication systems such as water well line shaft bearings, irrigation systems, and pump bearings. These vegetable-based fluids offer excellent anti-wear, anti-rust, anti-oxidation, anti-foam, and demulsibility properties. They are specially inhibited to resist moisture and corrosion in both fresh and seawater environments and pass ASTM D-665 rust tests (A and B).

Formulated with Stabilized™ High Oleic Base Stocks (HOBS), Bio-Drip™ Oils feature an oily boundary film and super high viscosity index for enhanced lubrication in high- and low-temperature applications. They are an environmentally responsible choice for agricultural, construction, forestry, mining, and marine industries where risk of soil or water contamination exists.

Benefits

- Ultimately biodegradable, environmentally non-toxic, not bioaccumulative
- Excellent rust and corrosion protection in fresh and seawater
- Superior anti-wear, oxidation resistance, and demulsibility
- High viscosity index and thermal stability for broad temperature performance
- Reduced oil thickening and deposit formation
- Passes ASTM D-665 A&B rust prevention tests
- Compatible with standard drip lubrication systems
- Exceeds EPA VGP 2013 guidelines for EALs
- LC-50 / EC-50 >1000 ppm (EPA/USFWS acute toxicity compliance)

Application / New Filling

- Designed for use in:
 - Water well line shaft bearings
 - Irrigation systems
 - Pump bearings
 - Agricultural, construction, mining, marine, and forestry drip lubrication systems
 - Use where environmental safety is a priority and risk of water or soil pollution exists
 - For equipment conversions or flushing instructions, contact Renewable Lubricants, Inc.

Specifications and Approvals

- OECD 301 Readily Biodegradable
- ASTM D 5864
- USDA Bio-preferred
- EPA EAL VGP Compliant (USCG approved)
- Vickers (20VQ, 35VQ-25(M-2950-S), V-104C (ASTM D-2882), I-286-S)
- Dennison (T-5D)
- US Steel (126, 136, 127)
- Patented Stabilized™ additive technology (US Patents 6,383,992 and 6,534,454)

TYPICAL SPECIFICATIONS

<u>SAE Grade</u>	<u>10W20</u>	<u>10W30</u>	
ISO Grade	32	46	220
VISCOSITIES:			
@100° C., cSt.	7	10	36.0
@40° C., cSt.	31	48	219
Brookfield, @-25° C., cP, (D-2983)	<3,000	3,000	
MRV @ -35 ° C., (TP-1)	<30,000	30,000	
Viscosity Index	198	202	210
Flash Point, COC, °C	225	278	285
Pour Point, ° C	<-36	-36	-20
Copper Corrosion Strip 3hr @ 100°C	1A	1A	1A
4 Ball Wear, 1h, 167° F, 1200 RPM, 40kg	.36	.36	.36
Demulsibility (D-1401)	Pass	Pass	40/40/0
Foam Sequence I, II, III (D-892)	0	0	0
Rust Prevention, (D-665 A&B)	Pass	Pass	Pass
RLI Product Item #	84010	84020	84030

F.O.B: Hartville, Ohio

Availability: 1 Gallon, 5 Gallon Pail, Drum, Totes, Bulk

STABILIZED™
Renewable Lubricants