



ISO-9001 Registered Quality System.
ISO-21469 Compliant.

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PRODUCT DATA

LUBRIPLATE BIOBASED GREEN HYDRAULIC FLUIDS ISO 32, 46 & 68

LUBRIPLATE Biobased Green Hydraulic Fluids are ultimately biodegradable¹ vegetable based formulas that replace mineral oil based hydraulic fluids. They are formulated to perform in hydraulic systems that require Anti-Wear (AW), anti-rust, anti-oxidation, anti-foam and demulsibility properties. They are highly inhibited against moisture and rusting in both fresh and sea water and pass both A and B Sequences of the ASTM D-665 Turbine Oil Rust Test. Incorporating the super high viscosity index of the Stabilized* High Oleic Base Stocks (HOBS) into the formula, increases the viscosity index past synthetic levels (Energy Conserving Formulas). Zinc-free additive systems have also been developed that are environmentally friendly and meet or exceed pump requirements.

LUBRIPLATE Biobased Green Hydraulic Fluids are designed for use in mobile and stationary hydraulic vane, piston and gear-type pumps and have shown to have exceptional anti-wear performance. **Very little wear was encountered, 0 to 25mg (Pass), in accelerated biobased tests using Denison T-5D, Vickers 20VQ, 35VQ-25 (M-2950-S) and V-104C (ASTM D-2882) pump stand tests at pressures and temperatures ranging from 2000 to 3000 psi and from 150° to 210°F.** The anti-wear performance exceeds the requirements for US Steel 126 and 127, load stage 10 in the FZG (DIN 51354), DIN 51524 and GM (LS-2). They also meet the requirements for ashless GL-3 gear oils in reduction units and gear sets where they meet the viscosity ranges. These fluids meet or exceed Federal Specification A-A-59354 Superseding MIL-H-46001D.

LUBRIPLATE Biobased Green Hydraulic Fluids should be used in hydraulic systems where low toxicity and BIODEGRADABILITY properties are required. Base oils and additives in these products pass and exceed the acute toxicity (LC-50) criteria adopted by the US Fish and Wildlife Service and the US EPA. LUBRIPLATE Biobased Green Hydraulic Fluids are ENVIRONMENTALLY RESPONSIBLE lubricants that are formulated from renewable agricultural plant resources.

¹Ultimate Biodegradation (PW1) within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants

Typical Test Data

PROPERTY	TEST METHOD	TYPICAL RESULTS*				Spec. Requirements
		ASTM	ISO 32	ISO 46	ISO 68	
Specific Gravity	D-287	0.88	0.88	0.88	Report	
Viscosity @ 40°C	D-445	30.87	43.8	64.1	Note 1	
Viscosity @ 100°C	D-445	6.9	9.67	12.5	Note 1	
Pour Point	D-97	-30°C	-35°C	-35°C	Note 1	
Flash Point	D-92	236°C	243°C	251°C	198°C (min)	
Fire Point	D-92	260°C	268°C	274°C	218°C (min)	
Hydrolytic Stability: Copper Wt. Loss	D-2619	0.0139 (mg)	0.0208 (mg)	0.0208 (mg)	0.2	
Copper Appearance		1B	1B	1B	Report	
Change in Acid No.		0.16	0.20	0.21	Report	
Water Layer		3.0	3.0	3.0	4	
% Insoluble		0.001	0.001	0.001	Report	
Foam Sequence I, II, III (10 min)	D-892	0 Foam	0 Foam	0 Foam	0 Foam	
Rust Prevention: Distilled Water	D-665	Pass	Pass	Pass	Pass	
Syn. Sea Water		Pass	Pass	Pass	Pass	
Copper Corrosion	D-130	1B	1B	1B	DIN 51524 2	
Demulsibility, ML Oil/Water/Emulsion	D-1401	40/40/0 (10 mins)	40/40/0 (10 mins)	40/40/0 (10 mins)	40/37/3 (max) (30 mins)	
4-Ball Wear - Petrolube Labs	D-4172	0.3 - 0.4	0.3 - 0.4	0.3 - 0.4	USS 127 0.5	
FZG Test – Clark Lab	DIN 51354	12	12	12	US Steel 10	
Biodegradation Classification	D-5864	Ultimate PW1	Ultimate PW1	Ultimate PW1	Ultimate PW1	

PACKAGING AVAILABLE

5 Gallon Pail
55 Gallon Drum

ISO 32

L1050-060
L1050-062

ISO 46

L1051-060
L1051-062

ISO 68

L1052-060
L1052-062