



Bio-Hydraulic 46

Premium Biodegradable Hydraulic Oil



Features & Benefits

- Full synthetic, PAO-based HEPR Fluid
- Compatible with HEES, HETG, mineral, PAO and synthetic ester-based hydraulic fluids
- Readily biodegradable
- Excellent choice for hydraulic and circulation systems operating in environmentally sensitive areas

Specifications

✓ Meets Requirements

Specification	Bio-Hydraulic 46
Parker (Denison) HF-0	✓
Vickers Industrial Applications	✓
Cincinnati Milacron P-70	✓

Bio-degradability Specifications	Bio-Hydraulic 46
Bio-degradation ASTM D5864	Ultimate Biodegradable (Pw1)
2013 VGP/EAL Compliant	Yes

Typical Results

Test Method	Bio-Hydraulic 46
ISO GRADE	46
DENSITY @ 15°C (D4052) (kg/l)	0.876
VISCOSITY (D445) cSt @ 40°C cSt @ 100°C	43.8 9.7
VISCOSITY INDEX (D2270)	215
POUR POINT (D97) (°C)	-38
FLASH POINT (D92) (°C)	243
FIRE POINT (D92) (°C)	266
4-BALL WEAR (mm)	0.35
FZG GEAR TEST (D5182) (Load Stage)	12
DEMULSIBILITY (D1401) (mL oil – mL – water – mL Emulsion) (mins)	40/40/0 (10)

Bio-Hydraulic 46 is a premium synthetic zinc-free and ashless environmentally friendly hydraulic fluid.

Bio-Hydraulic 46 meets the requirements for ultimate biodegradability and non-toxicity, making it an excellent choice for hydraulic and circulation systems operating in environmentally sensitive areas.

Bio-Hydraulic 46 is formulated with synthetic PAO (HEPR) and fully compatible with HEES, HETG, other mineral oils, PAOs, and synthetic esters. Mixing is not recommended for VGP requirements. **Bio-Hydraulic 46** is incompatible with HEPG (Polyglycols) or PAG synthetic oils.

Bio-Hydraulic 46 was developed to meet most major hydraulic pump and system manufacture requirements with added anti-wear and film strength additives designed to provide exceptional protection against rust and corrosion for hydraulic systems operating under high load and high-pressure settings.

Bio-Hydraulic 46 adheres to the “biodegradable,” “minimally-toxic,” and “not bio-accumulative” requirements specified in Appendix A of the 2013 Vessel General Permit provided by the United States Environmental Protection Agency.

Sizes & Order Codes

Size	Bio-Hydraulic 46
18.9L / 5.0 US gal	F0123540

www.irvingoil.com/lubricants
1.800.574.5823

Always consult your owner's manual for verification of fluid type and grade!

Supporting data available to demonstrate acceptable performance. Check with your sales associate for latest product approvals.

Please note, these are typical performance indicators and can change without notice.

This data sheet replaces previous versions prior to November 8, 2022.

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