

TEC-GUARD CHEMICAL

Bio Hydo - Fully Synthetic Anti-Wear Hydraulic Fluid

Performance Benefits

Tec-Guard Chemical Bio Hydo is a fully synthetic, HEES, readily biodegradable, hydraulic fluid designed to provide excellent performance in extreme temperatures and over extended periods of time. It offers high thermal and oxidative stability for extended drain intervals. Friction and wear of parts is minimized in industrial and mobile hydraulic systems.

Tec-Guard Chemical Bio Hydo is suitable to use in any industry: construction, refuse, mining, dredging, marine, agriculture, oil & gas, plant operations, etc., utilizing mobile or stationary hydraulically powered equipment, especially hydraulic systems where a release into the environment is possible or where a leak or spill could reach a waste stream. Performs exceptionally well in temperature extremes including hot and cold.

Product Advantages

- High thermal and oxidative stability for extended fluid life
- Anti-wear performance for longer parts life
- Wide operating temperature range in extreme cold and extreme heat
- Zinc free – reduced risk of corrosion of certain metals. Safer for use around bodies of water
- Readily biodegradable
- High lubricity

Meets the following specifications:

- DIN 51524 - Part 2 and 3
- Parker Denison HF-1, HF-2, HF-6
- Swedish Standard SS 15 54 34
- 35VQ25 Eaton Vickers Vane Pump
- DIN ISO 15380
- VDMA 24568

Application / Technical Support

- Follow recommendations provided in your equipment owner's manual
- Follow your organization's best practices for preparation, cleaning, conversion, application, and ongoing maintenance practices

Approvals

- eSyn Certified
- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)

Note: Tec-Guard makes no warranty or representation either expressed or implied, including warranty of merchantability or fitness concerning this product except that it conforms to the chemical description on the label. All risks resulting from the use of this product are to be borne by the buyer at its sole expense. Neither Tec-Guard nor the seller shall be responsible in any manner for any personal injury or property damage, or other type of loss resulting from the handling, storage, or use of this product

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Typical Properties

Technical Properties	Test Method	AW32	AW46	AW68
ISO Grade		32	46	68
Specific Gravity	ASTM D1298	0.87	0.87	0.89
Viscosity @ 40°C, cSt	ASTM D445	32	46	68
Viscosity @ 100°C, cSt	ASTM D445	6.3	8.7	11.2
Viscosity @ 030°C, cSt	ASTM D445	3,250	4,350	9,500
Viscosity Index (VI)	ASTM D2270	>140	>140	>140
Pour Point °F (°C)	ASTM D97	-48 (-44)	-48 (-44)	-45 (-42)
Flash Point °F (°C)	ASTM D92	>450 (231)	>450 (231)	>450 (231)
FZG Load Stage	DIN 51354	12	12	12
Copper Corrosion	ASTM D4048	1A	1A	1A
Rust Test A&B	ASTM D665	Pass	Pass	Pass
Demulsibility 15 minutes	ASTM D1401	40-40-0	40-40-0	40-40-0
Dielectric Breakdown Voltage kV	ASTM D877	>45	>45	>45
Readily Biodegradable (meaning >60%)		Pass	Pass	Pass
OECD 301B % in 28 days	OECD 301B	>75	>75	>75
Minimally Toxic		Pass	Pass	Pass
Algae (EC 50), 72 hr, mg/L	OECD 201	>13,000 mg/L	>13,000 mg/L	>13,000 mg/L
Daphnia (EC 50), 48 hr, mg/L	OECD 202	>25,000 mg/L	>25,000 mg/L	>25,000 mg/L
Fish (LC 50), 96 hr, mg/L	OECD 203	>50,000 mg/L	>50,000 mg/L	>50,000 mg/L
Not Bioaccumulative (Calculated value as per EPS Standard)		Pass	Pass	Pass

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