



Synterra™ Hydraulic Oil

Conoco Synterra™ Hydraulic Oil gives outstanding protection to equipment and the environment. It is manufactured from synthetic polyol ester fluids and is available in four viscosity grades: ISO 32 through 100. Synterra™ does not contain zinc and yet has the excellent antiwear and film-strength characteristics necessary for operating under moderate-to-severe conditions, up to 5000 psi pump pressure.

Synterra™ is readily biodegradable, and it is nontoxic and environmentally friendly. It exceeds the biodegradability requirements as defined by EPA 40 CFR, Part 792, OECD 301B and USTC PRO/BIO-BP 111-9 test methods.

Applications

In addition to good biodegradability and low toxicity, the lubrication properties of Synterra™ help to further reduce their impact on the environment. Its low coefficient of friction, based on the Four-Ball Wear test results, reduces energy consumed during equipment operations, resulting in less power usage. System operating temperatures and noise levels drop when Synterra™ is used. Synterra's™ long service life not only reduces lubricant-related maintenance cost, but also means that there is less used-oil waste generated for disposal in landfills.

Synterra™ meets the current requirements of Vickers 35VQ-25 pump test. It is qualified to CM (Cincinnati Machine) specifications as follows: P68 – Synterra™ biodegradable hydraulic oil 32, Synterra™ biodegradable hydraulic oil 46 and P69 – Synterra™ biodegradable hydraulic oil 68.

Note: For elastomer and seal compatibility, please call our technical Hot line.

**Readily
Biodegradable,
Premium Synthetic
Hydraulic Oil**

**U.S. Technical
Services Hot line:
1-800-255-9556**

**U.S. Customer
Service:
1-800-640-1956**

**International:
+1-832-486-3363**

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Outstanding Features

- Outstanding thermal and oxidative stability
- Metal wetting provides high-film strength
- Extreme temperature operating range
- Energy saving
- High VI
- High solvency and natural detergency
- Low volatility
- Readily biodegradable and nontoxic

Synterra™ Hydraulic Oil Typical Properties

ISO Grade	ASTM Test Method	32	46	68	100
Density, lb/gal		8.98	8.30	8.32	8.36
Viscosity,	D445				
cSt @ 40°C		31.5	43.8	74.0	95.0
cSt @ 100°C		6.2	7.9	11.9	14.1
Viscosity Index,	D2270	149	154	157	152
Pour Point,	D97				
°F		-62	-60	-65	-54
°C		-52	-51	-54	-48
Flash Point,	D93				
°F		511	500	531	520
°C		266	260	277	271
Total Acid No., mg KOH	D974	0.2	0.2	0.2	0.2
Rust Test, Sea Water, A&B	D665	Pass	Pass	Pass	Pass
Four-Ball Wear, mm ² , 40 kg, 302°F,					
1800 rpm, 60 min	D4172	0.40	0.40	0.40	0.40
Copper Corrosion	D130	1b	1b	1b	1b
Oxidation Stability, RPVOT, min	D2272	720	690	700	700
Dielectric Strength	D877	25	25	25	25
FZG Pass Stage, DIN 51534		12	12	12	12
Pump Wear Test	D2882	<50 mg	<50 mg	<50 mg	<50 mg
% Biodegradability in 28 days	OECD 301B	90	90	—	—

Due to continual product research and development, the information contained herein is subject to change without notification.

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