



## Ultra-Clean Super Hydraulic Oil

Conoco Ultra-Clean Super Hydraulic Oil is a premium quality antiwear hydraulic oil developed for use in industrial and mobile hydraulic systems that operate at high pressures and require oil with a high level of fluid cleanliness. It is available in five viscosity grades: ISO 22, 32, 46, 68 and 100.

Ultra-Clean Super Hydraulic Oil is formulated with hydro-cracked paraffinic base oils and fortified with select additives to provide excellent wear protection, rust and corrosion inhibition, oxidative and thermal stability, foam inhibition, and excellent water separation. It has the same high-performance characteristics as our regular Super Hydraulic Oil with the added advantage of fine filtration to a typical ISO Cleanliness Code of 17/15/11\* for use in hydraulic systems with tight tolerances where particle contamination can cause operational problems.

Ultra-Clean Super Hydraulic Oil meets the performance requirements of leading hydraulic pump manufacturers, such as Bosch Rexroth, Cincinnati Lamb, Denison Hydraulics, Oilgear, Racine, Sundstrand, Vickers (Eaton) and Voith.

### **Applications**

- High-pressure mobile and stationary hydraulic systems with vane, piston or gear pumps, especially where particle contamination can create operational problems
- Hydraulic systems that require an ultra-clean hydraulic fluid

Ultra-Clean Super Hydraulic Oil meets the performance requirements of:

- Cincinnati Lamb Specifications P-68 (ISO VG 32), P-70 (ISO VG 46) and P-69 (ISO VG 68)

### **Outstanding Features**

- Excellent oxidative and thermal stability
- Long service life for reduced operating and maintenance costs
- Reliable operation of hydraulic valves and actuators
- Excellent water separation
- Good low-temperature performance

**Premium Antiwear Hydraulic Oil;  
Meets ISO Cleanliness Code  
17/15/11**

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- High-dielectric strength
- Quick foam release

\* Particle count cleanliness rating based on the ISO 4406:1999 standard, which replaces the ISO 4406:1987 standard that used two range numbers for cleanliness codes. Applies only to unopened packaged containers as delivered from ConocoPhillips manufacturing plants. Particle count may vary from lab to lab.

### Ultra-Clean Super Hydraulic Oil Typical Properties

ISO Grade	22	32	46	68	100
Specific Gravity @ 15.6°C (60°F)	0.859	0.862	0.868	0.871	0.873
Density, lbs/gal	7.16	7.19	7.23	7.26	7.27
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5
Flash Point (COC),					
°C	196	216	227	243	249
°F	385	420	440	470	480
Pour Point,					
°C	-40	-37	-34	-33	-32
°F	-40	-35	-30	-28	-25
Viscosity,					
cSt @ 40°C	22.8	31.0	46	68	100
cSt @ 100°C	4.4	5.4	6.8	8.0	11.0
SUS @ 100°F	115	165	237	353	523
SUS @ 210°F	41	44	49	56	64
Viscosity Index	104	103	99	99	98
Acid Number, ASTM D974, mg KOH/g	0.5	0.5	0.5	0.5	0.5
Dielectric Strength, ASTM D877, kv*	35	35	35	35	35
FZG Gear Test, ASTM D5182, Pass Stage	10	10	10	10	10
Oxidation Stability, ASTM D943, hours	>5000	>5000	>5000	>5000	>5000
Cleanliness Code, ISO 4460:1999	17/15/11	17/15/11	17/15/11	17/15/11	17/15/11

\*At the point of manufacture.

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

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