



## Megaflow™ AW Ultra-Clean Hydraulic Oil

Megaflow AW Ultra-Clean Hydraulic Oil is a high-quality antiwear hydraulic oil developed for use in industrial and mobile hydraulic systems that require an oil with a high level of fluid cleanliness. It provides the same performance benefits as Megaflow™ AW Hydraulic Oil, plus it is filtered 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.

Megaflow AW Ultra-Clean Hydraulic Oil is formulated to provide excellent wear protection for hydraulic pumps and motors, and to protect hydraulic system components against rust and corrosion. It has excellent oxidation resistance and thermal stability at high temperatures to minimize deposit formation and provide long service life. It has excellent water-separating properties to minimize the formation of emulsions, and is resistant to excessive foam buildup that can cause poor or sluggish hydraulic system response.

Megaflow AW Ultra-Clean Hydraulic Oil meets the performance requirements of all major hydraulic pump manufacturers, and is recommended for use in all types of high-pressure, high-speed hydraulic pumps.

### **Applications**

- Hydraulic systems on industrial, mobile and marine equipment, especially where particle contamination can cause operational problems
- Automated machine tools
- Hydraulic elevators, hoists, presses and floor jacks
- Marine cargo winches and steering systems
- Plastic injection molding machines
- Service station lifts
- Air tools and other pneumatic equipment lubricated through air line lubricators
- Chain drives
- Electric motor bearings

Megaflow AW Ultra-Clean Hydraulic Oil meets the requirements of the following industry and OEM specifications:

- Bosch Rexroth RE 90 220
- Denison Hydraulics HF-0, HF-1, HF-2
- DIN 51524 Part 2, Antiwear Hydraulic Oils, Type HLP
- German Steel Industry SEB 181222

**High-Quality  
Antiwear Hydraulic  
Oil; Meets ISO  
Cleanliness Code  
17/15/11**

### **Contact Information**

**U.S. Customer  
Service:  
1-800-822-6457**

**Technical Hot Line:  
1-800-766-0050**

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- ISO 11158:1997, Family H (Hydraulic Systems), Type HM
- U.S. Steel 127
- Vickers (Eaton) M-2950-S, I-286-S

### **Features/Benefits**

- Excellent wear protection for hydraulic pumps and motors
- Reliable operation of hydraulic valves and actuators
- Excellent oxidation resistance and thermal stability
- Protects against rust and corrosion
- Excellent water-separating properties
- Good foam resistance
- Good low-temperature properties for cold start-ups
- Meets ISO Cleanliness Code rating of 17/15/11<sup>(1)</sup>

<sup>(1)</sup>**Note:** Applies only to unopened packaged containers as delivered from ConocoPhillips manufacturing plants. Particle counts may vary from lab to lab.

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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## Megaflow™ AW Ultra-Clean Hydraulic Oil

### Typical Properties

ISO Grade	32	46	68	100
Specific Gravity @ 60°F	0.862	0.868	0.871	0.873
Density, lbs/gal @ 60°F	7.19	7.24	7.26	7.28
Color, ASTM D1500	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	216 (421)	227 (441)	238 (460)	252 (486)
Pour Point, °C (°F)	-37 (-35)	-37 (-35)	-33 (-27)	-32 (-26)
Viscosity,				
cSt @ 40°C	31.0	46.0	68.0	100
cSt @ 100°C	5.4	6.8	8.7	11.0
SUS @ 100°F	160	237	353	523
SUS @ 210°F	44.4	49.0	55.5	63.9
Viscosity Index	104	100	99	98
Acid Number, ASTM D974, mg KOH/g	0.38	0.38	0.38	0.38
Copper Corrosion, ASTM D130	1a	1a	1a	1a
Demulsibility, ASTM D1401, minutes to pass	10	10	10	10
Dielectric Strength, ASTM D877, kv <sup>(2)</sup>	35	35	35	35
Foam Test, ASTM D892	Pass	Pass	Pass	Pass
FZG Scuffing Test, ASTM D5182, Failure Load Stage	>12	>12	>12	>12
Oxidation Stability,				
TOST, ASTM D943-04a, hours	>5,000	>5,000	>5,000	>5,000
RPVOT, ASTM D2272, minutes	>270	>270	>270	>270
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass
Zinc, wt %	0.043	0.043	0.043	0.043
Cleanliness Code, ISO 4460:1999	17/15/11	17/15/11	17/15/11	17/15/11

<sup>(2)</sup> At the point of manufacture

### Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

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