Megaflow® AW Ultra-Clean Hydraulic Oil

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

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
- 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 90220, Type HLP
- DIN 51524 Part 2, Antiwear Hydraulic Oils, Type HLP
- Eaton-Vickers I-286-S, M-2950-S
- German Steel Industry SEB 181222
- ISO 11158:1997, Family H (Hydraulic Systems), Type HM
- Parker Hannifin (Denison) HF-0, HF-1, HF-2
- U.S. Steel 127

CONTACT INFORMATION

Phillips66 Lubricants.com

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1-800-368-7128

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1-877-445-9198

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1-832-765-2500

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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[(1)]

[(1)] ***Note:*** *Applies only to unopened packaged containers as delivered from Phillips 66 manufacturing plants. Particle counts may vary from lab to lab.*

Megaflow® AW Ultra-Clean Hydraulic Oil

Typical Properties

ISO Grade	32	46	68	100
Specific Gravity @ 60°F	0.862	0.869	0.874	0.872
Density, lbs/gal @ 60°F	7.18	7.24	7.27	7.26
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)	-36 (-33)	-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	108	102	99	94
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[(2)]	35	35	35	35
Foam Test, ASTM D892, Seq. I, ml	0/0	0/0	0/0	0/0
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

[(2)] 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://w3apps.phillips66.com/NetMSDS*.