



## Low Particle (LP) Hydraulic Oils

Eco Ultra® Low Particle (LP) Hydraulic Oils are superior antiwear hydraulic and circulating fluids blended with highly re-refined Group II base oils. These hydraulic oils provide outstanding resistance to sludge formation and exhibits excellent antiwear protection. The rust and oxidation preventive capabilities, including superior demulsibility properties, make these oils rugged, even in high-output systems, which require a high level of fluid cleanliness. These oils are repeatedly filtered reaching a maximum cleanliness level of 17/15/11. Eco Ultra LP Hydraulic Oils also feature excellent vane pump and piston pump performance, anti-foam characteristics and superior hydrolytic stability. In addition to having excellent performance these oils also exhibit inherently biodegradability characteristics.

Eco Ultra LP Hydraulic Oils resist deterioration and perform at superior levels, even at high operating temperatures, pressures and speeds and low pour point ensures easy system start-up in cold conditions. engines and is outstanding for stop-and-go taxi fleets, city delivery vehicles and public utility fleets.

PROPERTY	ASTM TEST METHOD	ISO 32	ISO 46	ISO 68
Viscosity @ 40°C, cSt	D-445	32.9	46.5	68
Viscosity @ 100°C, cSt	D-445	5.5	6.80	8.5
Viscosity Index	D-2270	102	102	102
Flash Point, COC, °C	D-92	212	220	242
Flash Point, COC, °F	D-92	414	428	468
Pour Point, °C	D-97	-34	-30	-24
Pour Point, °F	D-97	-30	-22	-11
Color	D-1500	1.0	1.0	1.5
Gravity, °API	D-287	31.3	30.4	30.0
Turbine Oil Oxidation	D-943	3680	3540	3500
Rust Test	D-665	Pass	Pass	Pass
Emulsion Test	D-1401	40-40-0	40-40-0	40-40-0
Biodegradability %	D-5864	28.2	28.0	28.0
Fluid Cleanliness, Max.	ISO 4406	17/15/11	17/15/11	17/15/11

Meets or exceeds the following tests and requirements:

- AFNOR E 48-603
- B.F. Goodrich – 0152
- Cincinnati Milacron – P-68, P-69, P-70
- Denison – HF-0, HF-1, HF-2
- DIN 51524, Part 2
- Ford – M-6C32
- General Motors – LH-04-1, LH-06-1, LH-15-1
- Jeffrey - #87
- Lee Norse – 100-1
- Racine – Model S, variable volume vane pump
- U.S. Steel – 136, 127
- Vickers – I-286-S, M-2950-S, 35VQ25
- Inherently Biodegradable

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