



Product Bulletin

GULF HARMONY[®] PREMIUM AW HYDRAULIC FLUIDS

Gulf Harmony[®] Premium AW Hydraulic Fluids are zinc-containing anti-wear hydraulic oils formulated with high-quality base oils and an additive system designed to provide superior protection and performance even under the most severe operating conditions. They are suitable for use in a wide variety of both high and low pressure industrial, mobile and marine hydraulic systems utilizing vane, piston, or gear pumps. **Gulf Harmony[®] Premium AW Hydraulic Fluids** have excellent thermal and oxidation stability to minimize varnish and deposit formation and extend service life. These fluids meet the general physical and performance requirements outlined in European classification AFNOR NF E 48-603 (HM) and ISO 11158 HM.

FEATURES AND BENEFITS:

- Exceptional anti-wear protection to maximize hydraulic system component life
- Excellent hydrolytic stability – resists additive decomposition and the formation of sludge and acids in the presence of moisture
- Outstanding rust and corrosion protection for all components commonly found in hydraulic pumps and systems, including copper and its alloys
- Very good anti-foam system with low air entrainment.
- Superior oxidation resistance and resistance to thermal degradation for extended service life.

APPLICATIONS:

Gulf Harmony[®] Premium AW Hydraulic Fluids are recommended for applications where a premium quality, long life anti-wear hydraulic oil is required. Examples include hydraulic presses, winches, hoists, mobile construction equipment, machine tools, air compressors, steering gears and more.

Gulf Harmony[®] Premium AW Hydraulic Fluids meet or exceed the performance requirements of the following manufacturers and/or specifications:

- Denison HF-0 (hybrid pump), HF-1 and HF-2
- Eaton Vickers M-2950-S and I-286-S
- Parker Hannifin HPD
- Cincinnati Machine
- AFNOR NF E 48-603 HM
- U.S Steel 127 and 136
- DIN 51524 Part 2
- Bosch Rexroth (Variable Volume Vane Pump)
- ISO 11158 HM
- JCMAS HK

AVAILABILITY:

Gulf Harmony® Premium AW Hydraulic Fluids are available throughout Gulf's marketing area. Your Gulf representative can provide specific information. Need additional information? Call Gulf @ 1-800-566-GULF(4853) or visit Nu-Tierbrands.com.

Typical Properties

ISO Viscosity Grade	Test Method	32	46	68	100
Product Code		334533	334546	334568	334570
Viscosity, cSt @ 40°C	ASTM D-445	33.2	46.5	63.0	100
Viscosity, cSt @ 100°C	ASTM D-445	5.5	6.8	8.2	11.0
Viscosity Index	ASTM D-2270	101	100	96	98
Pour Point, °F (°C)	ASTM D-5949	-20 (-29)	-20 (-29)	-20 (-29)	-6 (-21)
Flash Point, °F (°C)	ASTM D-92	420 (216)	430 (221)	450 (232)	470 (240)
Color	ASTM D-1500	L1.0	L1.0	L1.5	L2.5
Rust Test	ASTM D-665 A&B	Pass	Pass	Pass	Pass
Oxidation Stability, hrs.	ASTM D-943	6,000+	6,000+	6,000+	4,000+
Foam Stability	ASTM D-892	Pass	Pass	Pass	Pass
Demulsibility @ 130 °F	ASTM D-1401	40-40-0	40-40-0	40-40-0	40-40-0
API Gravity	ASTM D-1298A	31.5	30.5	30.0	28.8
Density, lbs/gal (g/L)	Calculated	7.21	7.27	7.30	7.36
Cincinnati Machine		P-68	P-70	P-69	-