



Product Bulletin

GULF HARMONY® SYNTHETIC HYDRAULIC FLUID ZF *Zinc-Free hydraulic oil for demanding service*

Gulf Harmony® Synthetic Hydraulic Fluids ZF are high performance, zinc-free lubricants specially formulated to offer excellent low and high temperature performance beyond the capabilities of conventional mineral base industrial hydraulic oil. These specially formulated lubricants are recommended for use in mobile and other hydraulic equipment operating over a wide temperature range. Its superior oxidation stability helps to extend drains and helps to minimize sludge and varnish deposits.

FEATURES and BENEFITS:

- Outstanding oil life and anti-wear performance
- Ashless technology helps reduce impact on environment
- Synthetic base stocks provide excellent low temperature performance
- Excellent air release and anti-foam properties helps prevent pump cavitations
- Stable high Viscosity Index (VI) allows for wider temperature operation with more consistent viscosity performance.

APPLICATIONS:

Gulf Harmony® Synthetic Hydraulic Fluids ZF are recommended for vane, gear, and axial piston hydraulic pumps subject to wide variations in temperature and severe service often found in industrial, marine and mobile hydraulic and fluid power transmission systems. These fluids meet most major pump manufacturer's performance standards for both high and low pressure service: Parker Dennison HF-0, HF-1, HF-2 / Eaton Brochure 03-401-2010 / Bosch Rexroth / U.S. Steel 126, 127, 136 / DIN 51524, Part 2 / AFNOR E 48-603/ISO 11158.

Other applications would include presses, machine tools, grinders and die casting machines. **Gulf Harmony® Synthetic Hydraulic Fluid ZF** can be used for those compressors which call for a non-detergent motor oil.

Typical Properties

Product Code	Test Method	334328	334330	334332	334334	334336
ISO Grade		22	32	46	68	100
Viscosity, cSt @ 40°C	ASTM D 445	22.5	32.0	46.2	68.5	100
Viscosity, cSt @ 100°C	ASTM D 445	4.6	5.9	7.6	10.2	13.5
Viscosity Index	ASTM D-2270	135	120	120	120	120
API Gravity	ASTM D-4052	33.7	32.6	31.2	30.8	28.6
Flash Point, °C	ASTM D-92	200	215	230	245	250
Pour Point, °C	ASTM D-5949	-42	-42	-38	-32	-28

AVAILABILITY:

Gulf Harmony® Synthetic Hydraulic Fluids ZF 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 www.Nu-tierbrands.com.