



# Heavy duty detergent type ashless hydraulic oil

### **Product Description**

**Gulf Harmony HLPD, ISO VG 46** is heavy duty detergent type ashless anti-wear hydraulic oil specially developed for machine-tool hydraulic systems, mobile hydraulic systems and clutch drives where minor water contamination can be expected. It is formulated with special detergents and dispersants to avoid valve blockage problems caused by contamination of oil with synthetic and/or semi-synthetic water based cutting fluids. It provides superior anti-wear property, thermo-oxidative stability, rust & corrosion protection, foam control and rapid air release properties. It exceeds the performance requirements of HLPD classification of hydraulic oil and DaimlerChrysler DBL 6721 specification.

## Features & Benefits

- Special detergent and dispersant properties ensure smooth functioning of hydraulic systems by minimizing formation of sticky residues and deposits
- Excellent water emulsifying ability maintains proper functioning of hydraulic systems even in case of contamination of oil with small amounts of water
- Superior anti-wear properties help reduce wear of mechanical components
- High resistance to oxidation and thermal degradation controls the formation of sludge & varnish and improves oil life
- Superior foam control and rapid air release properties ensure trouble-free operations
- Effective corrosion inhibitors provide corrosion protection in arduous service conditions

### Applications

- Machine tool hydraulic systems where contamination of oil with water based cutting fluids is likely to occur
- Mobile hydraulic systems and clutch drives where minor water contamination can be expected
- Hydraulic systems in industrial and mobile service employing gear, vane and piston pumps where anti-wear hydraulic oils are recommended

## **Specifications, Approvals & Typical Properties**

Specifications		
HLPD classification of hydraulic oils		
DaimlerChrysler DBL 6721		
Typical Properties		
Test Parameters	ASTM Method	Test Values
Viscosity @ 40 °C, cSt	D 445	45.9
Viscosity Index	D 2270	100
Flash Point, ºC	D 92	210
Pour Point, °C	D 97	-18
Density @ 15°C, Kg/l	D 1298	0.874
Dispersancy strip test, mm	DB.LA.4.042	65
Steel Corrosion	DIN 51585	0-B
Copper Corrosion	DIN 51759 – 100A3	1A
FZG A/8.3/90, Pass stage	DIN 51354 part 2	12
Timken OK Load, lb	D 2782	65
Turbine Oil Stability Test, hrs	D 943	3500+

Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

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