

# **Gulf Harmony HLPD 46**

Heavy duty detergent type ashless hydraulic oil

### **Product Description**

**Gulf Harmony HLPD 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
- 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 |                   |       |
|  |                   |       |
| Viscosity @ 40 °C, cSt                       | D 445             | 45.9  |
| Viscosity Index                              | D 2270            | 100   |
| Flash Point, °C                              | 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+ |

Only for GOSCO: January 2016

Properties mentioned above are typical only and minor variations, which do not affect the product performances, are to be expected in normal manufacturing. The above information is based on past history of the grade only and must not be construed as a guarantee of performance. Follow equipment manufacturer's recommendations for performance level and viscosity grade. The Material Safety Data Sheet for this product is available from your nearest Gulf Distributor.