



# PAG Hydraulic Fluid

## (Synthetic Biodegradable Hydraulic Fluid)

**PAG HYDRAULIC FLUIDS** are high-performance biodegradable, non-toxic anti-wear hydraulic fluid series. They were developed for hydraulic systems operating in industrial, marine or mobile service. Their low pour point and high flash point make them ideal high-performance hydraulic fluids.

**PAG HYDRAULIC FLUIDS** are water soluble unlike most other hydraulic fluids. They also do not break down to form sludge or varnish, nor do they hydrolyze in the presence of water. Spills into waterways will not leave an oil-like sheen. However their low toxicity and biodegradability cause them to have a low environmental impact for small spills.

**PAG HYDRAULIC FLUIDS** are formulated from synthetic base fluid and non-toxic additives. They exhibit 80% biodegradability in a common industrial biodegradability test. The biodegradability of **PAG HYDRAULIC FLUIDS** protects the environment from damage when accidental discharges occur. With petroleum hydraulic oils, a hose break can cause substantial environmental damage.

**PAG HYDRAULIC FLUIDS** provide excellent anti-wear protection for high-pressure, high-speed hydraulic pumps equivalent to that of petroleum hydraulic oils. Unlike mineral based fluids this fluid passes a 12 stage FZG Gear test.

**WARNING.** Before converting from a mineral oil to PAG Hydraulic Fluid, please check with FINA technical services. Please determine coatings and seal materials used in the hydraulic system.

**PAG HYDRAULIC FLUIDS** also provide excellent rust and corrosion prevention properties.

These fluid pass the Vickers V104 and 35 VQ vane pump tests with very low wear.

### **BENEFITS:**

- EXCELLENT WEAR AND CORROSION PROTECTION
- 80% BIODEGRADABLE WITH LOW ECOTOXICITY
- WATER SOLUBLE
- VERY HIGH VISCOSITY INDEX
- VERY LOW POUR POINT
- NO SLUDGE OR VARNISH

### **APPLICATIONS:**

**PAG HYDRAULIC FLUIDS** are recommended for a wide variety of hydraulic systems operating at both high and low pressures. These hydraulic fluids are ideal for use in extremely cold outdoor applications such as around waterways where sub-zero temperatures occur. Examples would be waterway lock systems or in arctic gas offshore drilling rig applications.

They are especially suitable for applications in environmentally sensitive areas where accidental leaks and spills can cause environmental damage. Examples of hydraulic applications that might benefit include dockside, marine, mobile forestry, amusement park and industrial operations.



# PAG HYDRAULIC FLUID

## (Synthetic Biodegradable Hydraulic Fluid)

### TYPICAL CHARACTERISTICS

ISO Viscosity Grade	32	46
Product Code	45260	45261
API Gravity (ASTM D 1298)	2.0	2.0
Density, spg 60/60 F (lbs/gal)	1.06 (8.83)	1.059 (8.83)
Viscosity (ASTM D-445)		
cSt @ 40°C	34	46
cSt @ 100°C	7.6	9.1
cSt @ 0 C (32 F)	248	308
Viscosity Index (ASTM D-2270)	200	205
Pour Point (ASTM D-97) °F (°C)	-45 (-43)	-40 (-40)
Flash Point (ASTM D-92) °F (°C)	465 (241)	482 (250)
Biodegradability (OECD 302-B) Toxicity testing (OECD 203)		
Rust Test (ASTM D-665-A)	pass	Pass
TOST, hours, (ASTM D 943)	1800	1848
RBOT (minutes)	70	70
Foam Testing (initial foam/after 5 minute settling)		
Sequence 1	370/0	370/0
Sequence 2	35/0	35/0
Sequence 3	520/0	520/0
FZG Visual gear test, stages passed	12	12
Copper strip rating	1b	1b
Operating Range	-20 to 300 F	-20 to 300 F

The above data is subject to usual manufacturing variation.  
For more information or available, please call 1-800-442-LUBE.  
2/23/2006