



Product Data

ANVOL WG 46

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Fire Resistant Hydraulic Fluid

DESCRIPTION

Castrol Anvol WG 46 is an HF-C type water-glycol fire resistant hydraulic fluid, fully meeting the requirements of the 7th Luxembourg Report. Castrol Anvol WG 46, being a true solution of glycol in water, is inherently stable, has a long storage life and does not suffer from the separation problems which sometimes arise with emulsion type fire resistant fluids.

APPLICATION

Anvol WG 46 has excellent fire resistance and anti-wear performance as is recommended for use in power transmission applications where there is a significant risk of ignition in the event of fluid leakage, such as furnace door and die casting machine hydraulic systems. Castrol Anvol WG 46 has good compatibility with most common seal materials and it is normally a simple operation to convert an existing system from mineral oil as a consequence.

FEATURES

BENEFITS

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| ◆ High water content | ◆ Gives excellent fire resistance |
| ◆ Cannot be ignited in the NCB spray ignition test | ◆ Has no flash point unless all the water is driven off. In the event of spillage a blanket of steam is formed which prevents the glycol component from coming into contact with air and igniting. |
| ◆ True solution of glycol in water | ◆ Excellent stability in service and gives a long storage life. |
| ◆ Excellent anti-wear performance and outstanding corrosion protection (Vickers V104 Vane Pump Test) | ◆ Long component life |



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TYPICAL PHYSICAL CHARACTERISTICS

Appearance	Hazy red fluid
Kinematic Viscosity @ 0°C, cSt	405
@ 40°C, cSt	46
@ 60°C, cSt	24
Viscosity Index	>200
Relative Density @ 20°C	1.067
Pour Point, °C	-51
pH @ 20°C	9.2
Water Content, %	36
Air Release Value @ 50°C, mins	7
Foaming Characteristics Tendency/Stability, mis	10/Nil
Rust Protection Distilled Water	Pass

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Corrosion Test, 28 days Wt loss/gain, mg	Limits	-
Steel	11 max	0.5
Copper	11 max	1.2
Zinc	22 max	1.3
Aluminium	5.0 max	1.1
Brass	11 max	1.2
Vickers 104C Vane Pump Test (IP281/80) 250 hours, 104 bar, 50°C		
Total Weight Loss	500 max	59
Filterability (NFE 48692) Filterability Index (FI)	2 max	1.3



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ADDITIONAL INFORMATION

Compatibility with hydraulic components:

Metals

Anvol WG 46 is compatible with all common metals and passes the corrosion tests for Type HF-C fluids as detailed in the SHCMOEI Seventh Luxembourg Report.

Seals Materials - Suitable materials are:

Nitrile	PTFE
Neoprene (Chloroprene)	Silicone
Viton	Nylon
Natural Rubber	Butyl Rubber

Filters

Most metal types are compatible, but some paper elements can be damaged by water and only types approved for high water content fluids should be used.

Paints

Most paints are softened and lifted. Vinyl or epoxy resin based are compatible. When changing from mineral oil to water-glycol, all paint in the system should be removed unless it is known to be a compatible type.

Fluid Maintenance

In service water can be lost by evaporation and this must be periodically replaced to maintain the correct viscosity and optimum fire resistance. Water content can be determined directly by Laboratory analysis. Only condensate, distilled or de-ionised water should be used for top-up. The required quantity of water should be slowly added to the reservoir with the system running to ensure thorough mixing.

Operating Temperatures

Operating Range -20 to +60°C. Anvol WG 46 will remain fluid down to approx -50°C, however, the increased viscosity will limit actual low temperature running.

Care must be taken at temperatures above 60°C so water evaporation does not occur too readily and reduce fire resistant properties.

Health and Safety information sheets are available for all Castrol products from the address below:
Castrol (U.K.) Limited, Pipers Way, Swindon, Wiltshire SN3 1RE, England, Telephone:
Orders/Enquiries (08459)645111, Technical Enquiries (01793)452111, Fax (01793)486083

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