

# **Gulf Turbofluid 46XC**

High performance fire resistant phosphate ester hydraulic fluid

## **Product Description**

**Gulf Turbofluid 46XC** is a high performance fire-resistant hydraulic fluid designed for use in electrohydraulic governor control systems of steam turbines, including systems using fine tolerance servo valves. It is based on triaryl phosphates manufactured from carefully selected raw materials to provide exceptional hydrolytic and oxidation stability. It has inherent high flash point, fire point and auto ignition temperature eliminating the risk of fire potentially caused by mineral oil products. Physical properties, such as foaming, air release and demulsibility are carefully controlled within turbine manufacturers' specified limits. It is approved against Siemens specification TLV 9012 02 and is also recommended for use as fire resistant lubricant in steam and gas turbines.

#### **Features & Benefits**

- Excellent fire resistance increases safety in fire-sensitive applications
- Exceptional oxidation stability provides long service life under normal operating conditions
- Superior hydrolytic stability resists decomposition of ester under the influence of moisture and water in the system
- Good demulsibility enables rapid separation of oil from water
- Rapid air release minimises air entrapment in governor control systems and ensures safe operation

## **Applications**

- Electrohydraulic governor control systems of steam turbines, including systems using fine tolerance servo valves
- Main bearings in steam and gas turbines, generators and cooling pumps
- Hydraulic and power transmission systems in steel, mining and other applications requiring fire resistant hydraulic fluids

### Specifications, Approvals & Typical Properties

Has the following Approvals		
Siemens TLV 9012 02		
Typical Properties		
Test Parameters	ASTM Method	Test Values
Viscosity @ 40 °C, cSt	D 445	43.4
Flash Point, °C	D 92	246
Fire point, °C	D 92	368
Auto Ignition temperature, °C	D 2155	575
Pour Point, °C	D 97	-20
Neutralisation number, mg KOH/g	D 664	0.06
Emulsion Test @ 54 °C, 30 minutes max	D 1401	Pass
Water Content, %	D 1744	0.06
Cleanliness level (at filling stage)	NAS 1638	6
Density @ 15°C, Kg/l	D 1298	1.13
Air release @ 50 °C, minutes	D 3427	2

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.