

THERMAL-LUBE

WATER GLYCOL FIRE - RESISTANT HYDRAULIC FLUID

XL5046

July 2022

XL5046 water glycol fire resistant hydraulic fluid is a premium, general purpose water glycol fire resistant hydraulic fluid which provides a safer working environment than conventional mineral, or vegetable oil based hydraulic fluids. In applications where hydraulic piping may rupture and spray hydraulic fluid onto hot surfaces, mineral oil-based fluids can ignite causing a severe hazard to personnel and equipment.

XL5046 water glycol fire resistant hydraulic fluid contains a corrosion inhibitor which protects the system against oxidation and other corrosion effects.

XL5046 has been FM Approved  for fire resistance.

XL5046 FEATURES/ BENEFITS

- Excellent fire resistance
- Reduced risk of injury to operating/maintenance personnel and damage to equipment caused by hydraulic fluid fires.
- Good anti-wear characteristics Increased protection against premature pump and component wear.
- Reduced downtime and lower maintenance costs
- Liquid and vapor phase corrosion inhibition
- Protects system reservoir and ferrous and non-ferrous components against oxidation and corrosion.
- Extends equipment life, reduces downtime and maintenance costs
- Inherently low pour point and excellent viscosity temperature characteristics
- Excellent cold temperature properties.
- Wide operating temperature range
- Low toxicity Reduced health and safety concerns.
- No special handling or disposal issues
- Readily biodegradable, low ecotoxicity, Reduced environmental liability in case of spills or leaks into the water
- Passes EPA/U.S. Coast Guard Sheen Test Complies with EPA/Coast Guard Rules



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XL5046 APPLICATIONS

- Hydraulic systems where leakage could pose environmental hazard (water spill)
- Hydraulic systems where leakage could pose fire hazard
- Suitable for all hydraulic applications up to 5000 psi continuous running or 7000 psi intermittent
- Suitable for replacement of all hydraulic oils with a viscosity 32 to 64 centistokes (cSt)

XL5046 USAGE GUIDELINES

XL5046 water glycol fire resistant hydraulic fluid should be maintained by periodically testing for color, viscosity, water content, pH and Alkalinity Reserves

- Color and Appearance: Discoloration of the fluid may indicate changes in the fluid parameters.
- Viscosity at 40C, cSt: Increases in viscosity indicate water loss, decreases indicate contamination
- Water Content: Periodic distilled water make-up is required to replace evaporation. NOTE: To ensure fire protection, water content and viscosity must be maintained at correct levels
- pH and Alkalinity Reserve: pH drops may indicate contamination or loss of reserve alkalinity, due to ageing of the hydraulic fluid. Samples should be drawn at least annually for laboratory testing.

XL5046 PHYSICAL PROPERTIES

Appearance	Visual	Green
Viscosity @20°C, cSt	ASTM D445	1350
Viscosity @40°C, cSt	ASTM D445	46
Viscosity @100°C, cSt	ASTM D445	9.2
Viscosity Index	ASTM D2270	188
Density @ 20°C	ASTM D4052	1.09
pH @ 25°C		9.5
Residual Alkalinity, ml	ASTM D1120	18
Flash Point	ASTM D92	None
Pour Point °C	ASTM D97	-60
Yellow Metal Corrosion	ASTM D130	pass (1a)
Rust test	ASTM D665 A&B	Pass
Four Ball Wear Test mm	ASTM D2266	0.65
Vane Pump Test mg (2kPSI, 65.5°C, 1k Hours)	ASTM D7043	Pass, <5mg
Piston Pump Sauer Sunstrand 90 Series (5kPSI, 65.5°C, 225 Hours)	Similar to John Deere	Pass, no appreciable wear



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