

## ULTRA-SAFE 620

no mineral oil containing, high viscosity index, good chemical stability, high load-carrying property, economical and long service life's product

PETROFER US620 is a water glycol type fire-resistant hydraulic fluid composed of water, diglycols, lubricating packages, vapor and liquid phase inhibitors and a variety of additives. US620 provides suitable viscosity, excellent viscosity-temperature characteristic and chemical stability. Under normal use and maintenance conditions US620 doesn't decompose; also there is no deterioration occurring. It is really a product with long service life.

US620 has higher viscosity index and good lubricity, which make it almost possessed of the property of mineral hydraulic oils, so higher operating pressures can be undertaken. US620 is widely used in various hydraulic systems of steel and iron making, continuous casting, hot rolling, and diecasting equipment.

### Chemical and physical data:

Appearance		clear red fluid
specific gravity(20°C)	DIN 51 757	1.072~1.092 g/ cm <sup>3</sup>
Viscosity/20°C	DIN 51 562	70~85 mm <sup>2</sup> /s
40°C	DIN 51 562	36~45 mm <sup>2</sup> /s
Viscosity index	DIN 51 597	>150
Alkaline Reserve		>115
Pour point	ISO 3016	<-40°C
pH-value		>9.2

Reflective Index	41~44
Cleanliness(NAS)	≤6

**Application and instruction for use:**

US620 can be used directly without dilution. Long-term practical experience has shown that most hydraulic pumps work without problems with US620 and enjoy excellent and economic service life.

**The following are the most widely used pumps and valves with US620:**

- vane and intra-vane-pumps
- internal gear pumps
- normal gear pumps
- in-line(axial) piston-pumps and radial pistons pumps
- most of valves and hydraulic components usually used in oil hydraulic systems

Operating pressures are recommended within 70-80% rated pressure of system. Most application for fluids of this type are today in the range of 120-250 bar.

As US620 is water containing fire-resistant fluid, tank temperature should be controlled to reduce evaporation of water and avoid viscosity rise. Temperatures for open tanks should not exceed 55°C; they should not be above 60°C for close tanks. The usual temperature of tanks for US620 should range from 35°C to 45°C.

During operation, its viscosity may change because of water evaporation. Viscosity usually varies from 35cSt-55cSt.

**Compatibility of US620 with metallic and non-metallic materials:**

US620 is compatible with pumps, valves and most metallic materials such as steels, cast iron, copper, brass, bronze and anodized aluminum, which are usually applied in mineral oil based hydraulic systems. But lead, zinc, magnesium and cadmium are best avoided.

Usually elastomers of the type Buna N are applied but also Butyl, Viton, Silicon as well as Nylon can be applied. Natural and polyurethane elastomers should not be used.

All water-glycol fluids would soften and strip off paints. Tanks internally coating should be removed paints before the addition of the water-glycol type of fire-resistant fluids. Due to the excellent corrosion protection of vapor and liquid phases, the rust protection of the internal surfaces of tanks can be obtained. The condensate would attach to the under-side of tank covers, because of water evaporation, so the adoption of stainless steel covers is recommended, or other anti-rust processes should be adopted.

**Safety and waste disposal:**

US620 is biodegradable. The waste fluid can be diluted with large amount of waste and then drains into the sewer systems of the plants.

**Packing:**

Steel Drum (208 Liter)

**Net Weight:** 220 Kg/Drum

Only valid in combination with EC-Safety-Data-Sheet.

**Warranty**

The information given here is considered to be correct and is offered for your consideration, investigation and verification. No warranties are expressed or implied since the use of our products is beyond our control. Statements concerning the use of PETROFER-products are not to be constructed as recommending the infringement of any patent.

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