

# QUINTOLUBRIC® 855

## Fire Resistant Hydraulic Fluid



### APPLICATIONS

QUINTOLUBRIC® 855 was designed to replace anti-wear, mineral oil based hydraulic fluids as well as vegetable-based fluids and polyol esters. QUINTOLUBRIC® 855 can be used in or near fire hazards and in environmentally sensitive hydraulic applications without compromising the overall hydraulic system operation.

QUINTOLUBRIC® 855 is based on high-quality, natural esters and carefully selected additives to achieve excellent hydraulic fluid performance. QUINTOLUBRIC® 855 does not contain water, mineral oil or phosphate ester.

QUINTOLUBRIC® 855 is recommended for use in systems with a maximum operating temperature of 70°C (150°F), in combination with partial refreshment by system leakage.

QUINTOLUBRIC® 855 is used as received and pre-filtration is not necessary because the fluid is filtered during production. Its higher viscosity index compared with mineral oil makes it ideal for use at a wider temperature range. QUINTOLUBRIC® 855 also has good cold start-up properties and offers a higher viscosity at increased temperatures.

### BENEFITS

- FM Approved as a less hazardous hydraulic fluid.
- Excellent lubrication properties.
- Excellent shear stability.
- Compatible with most standard seal materials.
- One viscosity grade works in systems designed for ISO 46 or ISO 68 fluid.
- Non-toxic and non-irritating.
- Contains no hazardous ingredients.
- Product is >90% biodegradable according to CEC L-33-T-82.
- Energy saving because of low density compared to other HFD type fluids.
- Excellent price/performance balance.

### TYPICAL PROPERTIES

PROPERTIES (Test Method)	855 (014207)
Appearance	Yellow to amber fluid
Kinematic Viscosity (ASTM D 445) At 20°C At 40°C At 100°C	150.4 mm <sup>2</sup> /s or cSt 62.5 mm <sup>2</sup> /s or cSt 13.0 mm <sup>2</sup> /s or cSt
Viscosity Index (ASTM D 2270)	210
Density at 15°C (ASTM D 1298)	0.92 g/cm <sup>3</sup>
Acid Number (ASTM D 974)	0.7 mg KOH/g
Pour Point (ASTM D 97)	< -20°C (< -4°F)
Foam Test at 25°C (ASTM D 892 Sequence I)	30-0 ml-ml
Corrosion Protection CETOP R 48H ASTM D 665 A ASTM D 130	Pass Pass 1a
Flash Point (ASTM D 92)	310°C (590°F)
Fire Point (ASTM D 92)	355°C (675°F)
Air Release (ASTM D 3427)	8 min.
Demulsability (ASTM D 1401)	41-39-0 (25) ml-ml-ml (min)
Saponification Value (QTN* C012)	180 mg KOH/g
Auto Ignition Temp. (DIN 51794)	>400°C/>752°F
Fire Resistance (FM Approvals)	Approved
Pump Test (ASTM D 2882)	<5 mg wear
Gear Lubrication (DIN 51354-2)	>12 FZG load stage
Specific Heat at 20°C (ASTM D 2776)	2.06 KJ/kg.°C Btu/lb °F
Coefficient of Thermal Expansion at 20°C (ASTM D 1903)	6 X 10 <sup>-4</sup> / °C

\*Country-specific MSDS are available.

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### COMPATIBILITY

#### Seals, Hoses and Packings

Most standard materials like NBR or buna (medium to high nitrile rubber) are compatible, but because of the number of material types available and variations in their application, specific recommendations should be solicited from the materials manufacturer, or the Quaker Chemical laboratory. Excellent results are obtained with FPM (Viton®) and it is therefore recommended for higher system temperatures.

#### Metals

QUINTOLUBRIC® 855 is compatible with iron and steel alloys and most non-ferrous metals and their alloys, but not with lead, cadmium, zinc, and alloys containing high levels of these metals. Components containing highly leaded alloys should be replaced with a suitable substitute. For zinc please see "Paints."

#### Other Fluids

QUINTOLUBRIC® 855 is usually compatible with other HFD-U fluids and mineral oils. However, we recommend that a test program be performed for every major fluid conversion. QUINTOLUBRIC® 855 is not miscible with water and water based fluids, but is compatible with fluids of the QUINTOLUBRIC® 888 and 822 series.

#### Paints

Paint coatings inside the hydraulic equipment are usually not needed since QUINTOLUBRIC® 855 provides sufficient corrosion protection. However, QUINTOLUBRIC® 855 is compatible with multiple component epoxy systems. QUINTOLUBRIC® 855 is not compatible with zinc based coatings. Specific coating recommendations can be obtained from the coating manufacturer or directly from Quaker.

### FLUID MAINTENANCE

In order to prolong fluid life, the product should be kept free from water and dirt. High temperatures should also be avoided. We recommend a program of regular fluid analysis (no less than twice per year). Fluid analysis services are available directly from Quaker.

### SAFETY

Please consult the Material Safety Data Sheet (MSDS) for information on measures to be taken to ensure the protection of health and safety at the workplace. MSDS's are available directly from Quaker.

### STORAGE AND HANDLING

If the following criteria are adhered to, the product can be stored for at least twelve months. Recommended long-term storage temperature range: 0-40°C. Keep containers/drums tightly closed when not in use and store in a dry and well-ventilated area.

