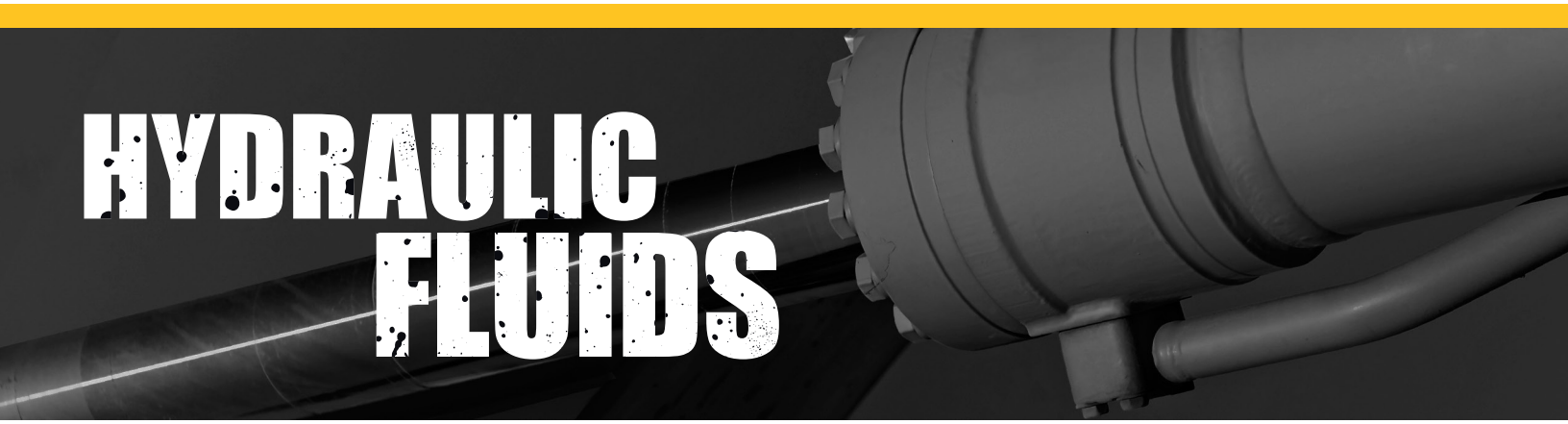
Quaker
It's what's inside that counts.®



QUINTOLUBRIC® 855
FIRE RESISTANT HFD-U HYDRAULIC FLUID
APPLICATION SHEET

BENEFITS

- Excellent lubrication properties
- 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 readily biodegradable

FM APPROVED

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.

PROPERTIES

PROPERTIES (TEST METHOD)	TYPICAL VALUES
Appearance	Yellow to Amber Fluid
Viscosité (ASTM D 445) At 20°C At 40°C At 100°C	 118 mm^2 /s or cSt 55 mm^2 /s or cSt 12 mm^2 /s or cSt
Viscosity Index (ASTM D2270)	220
Density at 15°C (ASTM D1298)	0.92 g/cm^3
Acid Number (ASTM D974)	0.95 mg KOH/g
Pour Point (ASTM D97)	-21°C (-6°F)
Foam Test at 25°C (ASTM D892)	0-0 ml-ml
Corrosion Protection ISO 4404-2 ASTM D665 A / ASTM D130	 Pass Pass / 1a
Dry TOST (ASTM D943 mod.)	200 hrs
Flash Point (ASTM D92)	310°C / 590°F
Fire Point (ASTM D92)	355°C / 675°F
Auto Ignition Temperature (DIN 51794)	>400°C / >752°F
Air Release (ASTM D3427)	8 min.
Vane Pump Test (ASTM D 2882)	<5 mg wear
Gear Lubrication (DIN 51354-2)	>12 FZG load stage
Demulsability (ASTM D1401)	41-39-0 (25) ml-ml-ml (min)

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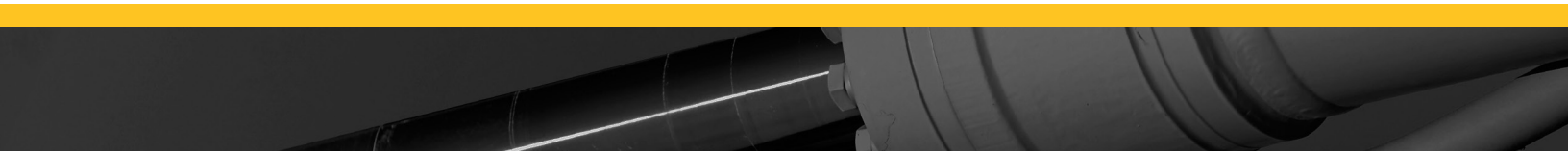

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METALS

QUINTOLUBRIC® 855 is compatible with iron and steel alloys and most nonferrous metals and their alloys. It is not compatible with lead, cadmium and has limited compatibility with alloys containing high levels of these metals. QUINTOLUBRIC® 855 has limited compatibility with hot dipped or electro galvanized surfaces and good compatibility with zinc containing alloys. Suitable substitutes for these materials are available and should be used.

PAINTS AND COATINGS

QUINTOLUBRIC® 855 is compatible with multi-component epoxy coatings. It is not compatible with zinc-based coatings. Specific coating and application recommendations can be obtained from coating manufacturers or directly from Quaker.

FLUIDS

QUINTOLUBRIC® 855 is compatible and miscible with nearly all mineral oil and polyolester-type hydraulic fluids and with some, but not all, phosphate esters. It is not miscible or compatible with water-containing fluids. For conversion recommendations, please contact Quaker.

ELASTOMERS

ISO 1629	DESCRIPTION	S*	MD*	D*
NBR	Medium to high nitrile rubber (Buna N, >30% acrylonitrile)	C	C	C
FPM	Fluoroelastomer (Viton®)	C	C	C
CR	Neoprene	S	S	S
IIR	Butyl rubber	S	N	N
EPDM	Ethylene propylene rubber	N	N	N
PU	Polyurethane	C	C	C
PTFE	Teflon®	C	C	C

**(S- Static, MD- Mild Dynamic, D- Dynamic)
C = Compatible
S = Satisfactory for short term use, but replacement with a completely compatible elastomer is recommended at the earliest convenience.
N = Not Compatible

ENGINEERING DATA

PROPERTIES (TEST METHOD)	TYPICAL VALUES
Specific Heat at 20°C (D2766)	2.06 kJ/kg°C .49 Btu/lb °F
Coefficient of Thermal Expansion at 20°C (D1903)	6 X 10^{-4} per °C
Vapor Pressure (02551) At 20°C At 66°C	 3.2 X 10^{-6} mmHg 7.5 X10^{-6} mm Hg
Bulk Modulus at 20°C At 210 bar At 3,000 psi	 1.87 X 10^{5} N/cm^{2} 266,900 psi
Thermal Conductivity at 19°C (D 2717)	0.167 J/sec/m/°C

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 Safety Data Sheets (SDS) for information on measures to be taken to ensure the protection of health and safety at the workplace. SDS'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.

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