TECHNICAL DATA SHEET

QUINTOLUBRIC® 855

FIRE RESISTANT HFD-U HYDRAULIC FLUID

FM APPROVED

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.

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.

Recommendation for Use

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.

Engineering Data

PROPERTY (TEST METHOD)	TYPICAL VALUE	UNIT
Specific Heat at 20°C (D 2766)	2.06 .49	kJ/kg°C Btu/lb°F
Coefficient of Thermal Expansion at 20°C (D1903)	6×10^{-4}	per °C
Vapor Pressure (02551) At 20°C At 66°C	3.2×10^{-6} 7.5×10^{-6}	mm Hg
Bulk Modulus at 20°C At 210 bar At 3,000 psi	1.87×10^{5} 266,900	N/cm² psi
Thermal Conductivity at 19°C (D2717)	0.167	J/sec/m/°C

*country specific SDS are available

Benefits

- Excellent lubrication properties
- Non-toxic and non-irritating
- Contains no hazardous ingredients
- Product is readily biodegradable

Properties

PROPERTY (TEST METHOD)	TYPICAL VALUE	UNIT
Appearance	Yellow to amber fluid	
Kinematic Viscosity (ASTM D 445) At 20°C At 40°C At 100°C	 118 55 12	 mm²/s or cSt
Viscosity Index (ASTM D2270)	220	
Density at 15°C (ASTM D1298)	0.92	g/cm³
Acid Number (ASTM D974)	0.95	mg KOH/g
Pour Point (ASTM D97)	-21 | -6	°C | °F
Foam Test at 25°C (ASTM D892)	0-0	ml-ml
Corrosion Protection ISO 4404-2 ASTM D665 A / ASTM D 130	 Pass Pass / 1a	
Flash Point (ASTM D92)	310 | 590	°C | °F
Fire Point (ASTM D92)	355 | 675	°C | °F
Auto Ignition Temperature (DIN 51794)	>400 | >752	°C | °F
Air Release (ASTM D3427)	8	min
Dry TOST (ASTM D943 mod.)	200	hrs
Vane Pump Test (ASTM D2882)	<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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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 Houghton.

Compatibility

Metals

QUINTOLUBRIC® 855 is compatible with iron and steel alloys and most non-ferrous 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 shows limited compatibility with one component (zinc-dust containing) coatings. Specific coating and application recommendations can be obtained from coating manufacturers or directly from Quaker Houghton.

Fluids

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

Elastomers

ISO 1629	DESCRIPTION	S*	MD*	D*
NBR	Medium to High Nitrile Rubber (Buna N,>25% acrylonitrile)	C	C	C
FPM	Flouroelastomer (Viton®)	C	C	C
PU	Polyurethane	C	C	C
CR	Neoprene	S	S	S
IIR	Butyl rubber	S	N	N
EPDM	Ethylene Propylene Rubber	N	N	N
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

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions. This product has a shelf life of 12 months, and it should be stored in a tightly sealed container in temperatures between 0 - 40°C.

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