

TECHNICAL DATA SHEET

QUINTOLUBRIC® 822-450 FIRE RESISTANT HFD-U HYDRAULIC FLUID



QUINTOLUBRIC® 822-450 is based on synthetic esters and contains an optimized additive package. It does not contain water, phosphate esters or chlorinated hydrocarbons.

Applications

QUINTOLUBRIC® 822-450 was designed to replace anti-wear, mineral oil-based hydraulic fluid used in fire hazardous and environmentally sensitive hydraulic applications without compromising overall hydraulic system operation.

The product is widely used over many types of industries. Major applications include the Steel industry, Non-ferrous industry, Glass industry, Mobile equipment and Mining.

Recommendation for Use

QUINTOLUBRIC® 822-450 is used as received and pre-filtration is not necessary because the fluid is cleaned during production down to a low NAS 1638 class. Its higher viscosity index compared with mineral oil makes it ideal for use at a wider temperature range. It also has good cold start-up properties and offers a higher viscosity at increased temperatures.

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.

Fluid Maintenance

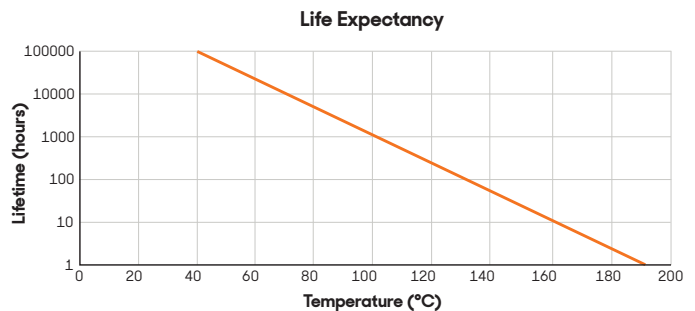
In order to maintain optimal conditions, the product should be kept free from water and effective filtration used to avoid contamination with solids. Extremely high temperatures should also be avoided. The fluid's condition should be checked twice a year when its acid number will give an important indication of its state.

Benefits

- Good fire-resistant properties
- FM Approved as a less hazardous hydraulic fluid
- Approved by MSHA Approval No. 30-20-3
- Excellent lubrication properties

Performance

Properly maintained QUINTOLUBRIC® 822-450 has a useful life comparable to that of mineral oil fluids. Specific fluid lifetime depends primarily on temperature as shown in the graph.



QUINTOLUBRIC® 822-450

FIRE RESISTANT HFD-U HYDRAULIC FLUID

Properties

PROPERTY (TEST METHOD)	TYPICAL VALUE	UNIT
Appearance	Light amber, clear fluid	
Kinematic Viscosity (ASTM D445)		
At 0°C	1050	cSt
At 20°C	240	
At 40°C	100	
At 100°C	14	
Acid Number (ASTM D974)	2.0	mg KOH/g
Density (ASTM D1298)	.	
At 25°C	.922	
At 50°C	.905	
Viscosity Index (ASTM D 2270)	145	
Pour Point (ASTM D97)	< -26 / < -15	°C/°F
Foam Test at 25°C (ASTM D892) Sequence I	Pass	
Corrosion Protection		
ISO 4404-2	Pass	
ASTM D 665 A	Pass	
ASTM D 130	1a	
Flash Point (ASTM D92)	>260/>500	°C/°F
Fire Point (ASTM D92)	>340/>645	°C/°F
Vane Pump Test (ASTM D2882)	<20 mg weight loss (ring plus vanes)	mg
Water Separability (ASTM D 401)	40-40-0 (30) ml oil:water: emulsion (min)	ml

Compatibility

Seals, Hoses and Packings

Most standard materials like NBR (ISO 1629) 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 Houghton laboratory. Excellent results are obtained with FPM (ISO 1629) and is therefore recommended for higher system temperatures.

Paints and Coatings

Paint coatings inside the hydraulic equipment are usually not needed since the QUINTOLUBRIC® 822-450 provides sufficient corrosion protection. However, QUINTOLUBRIC® 822-450 is compatible with multiple component epoxy systems. Care should be taken when using zinc based coatings, which are not compatible under all circumstances. If paint coatings inside the hydraulic equipment are required, please consult the paint manufacturer or the Quaker Houghton laboratory for additional information, because the product is not compatible with all types of paint.

Metals

QUINTOLUBRIC® 822-450 is compatible with iron and steel alloys and most non-ferrous metals and their alloys, but not with highly leaded alloys. Components containing highly leaded alloys should be replaced with a suitable substitute. For zinc please see "Paints".

Other Fluids

QUINTOLUBRIC® 822-450 is usually compatible with other HFD-U fluids and mineral oils. However, we recommend that a test program be performed for every major fluid change over. QUINTOLUBRIC® 822-450 is not miscible with water and water based fluids, but is compatible with other fluids of the QUINTOLUBRIC® series.

All reasonable care has been taken to ensure this publication is accurate upon issue. Such information may be affected by changes subsequent to issue. This Technical Data Sheet is to be used solely for this product. Prior to any use, consult the Safety Data Sheet (SDS) for information on hazard risks and product use parameters. All liability and all warranties express or implied are hereby excluded as to product performance results, the accuracy of these data including any warranty of merchantability or fitness for any purpose. 002437

