

HOUGHTO-SAFE 273CTF

Motion Compensator/Riser Tensioner Hydraulic Fluid / Closed loop BOP fluid

DESCRIPTION

Houghto-Safe 273CTF is a fire resistant non-explosive water glycol hydraulic fluid which incorporates additives which insure long fluid life, excellent pump wear characteristics, protection against corrosion and resistance to microbiological contamination. Recommended for use in motion compensators, drill string and riser tensioners and closed loop hydraulic wellhead control systems.

DATA (TYPICAL VALUES)

Appearance Clear pink/red fluid

Kinematic Viscosity

@ 40°C (104°F) 40 cSt

@ 20°C (68°F) 85 cSt

@ 0°C (32°F) 250 cSt

@ -10°C (14°F) 450 cSt

Specific Gravity @ 15.5°C (60°F) 1.072

Pour Point -40°C (-40°F)

Flash Point None

Fire Point None

pH Value 9.5

Corrosion Inhibition

IP 135B Pass - no rusting

ASTM D-665B Pass - no rusting

MIL-H-22072C Pass

Foaming

IP 146 0/20/0

ASTM D892 Sequence 1

Time to complete Collapse 22 sec.

FEATURES

- Formulated to meet 50:1 compression ignition test as specified in the U.S. Navy Specification MIL-H-22072C
- Contains no nitrites and is biodegradable
- Non sheening
- Low pour point
- Compatible with the majority of elastomers found in today's hydraulic systems
- Is corrosion inhibited, both in liquid and vapor phase
- Outstanding resistance to bacterial and fungal growth
- No pressure limitations. Pressures governed by equipment limitations
- Low foaming. High viscosity index
- Compliant with Global environmental regulations.

HEALTH AND SAFETY

Refer to MSDS for proper handling and disposal. Please note that the MSDS includes handling, health and disposal information which should be passed on to your employees, and to anyone else who comes in contact with our product. Additional advice can also be obtained from your local Houghton representative.

NOTE: Read and understand all precautions on container labels before using this product.

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CLEANLINESS LEVEL

Houghto-Safe 273CTF is filtered during production and supplied to NAS 1638 Class 6 in the drum.

COMPRESSION IGNITION

Sudden high compressions in compensator systems could raise the temperature sufficiently to constitute a fire or explosive risk.

Hydro-pneumatic compensator systems usually incorporate long runs of high pressure pipe work with air over oil interface in their design. Systems of this type can be subjected to sudden extreme rises of temperature following instantaneous compression of the air, which acts due to its compressibility as the spring medium.

MIL-H-22072C involves a modified CFR (Co-ordinated Fuel Research) engine. The engine is motored for 45 minutes or longer at a 50:1 compression ratio to stabilize temperatures. The fluid is injected during a 15 second period of running, while oscilloscope pressure traces indicate whether combustion has occurred. This is followed by two additional 15 second runs each preceded by 45 seconds of mooring without injection. Successive determinations are made with progressively reduced compression ratios until no combustion occurs. The maximum combustion ratio is compared with that for a reference fluid of established fire resistance properties.

Houghto-Safe 273TF passes this test at 50:1 ratio.

COMPATIBILITY WITH SYSTEM COMPONENTS

The following table describes in general terms the compatibility of **Houghto-Safe 105CTF** with a variety of materials and is intended as a useful guide. It is advisable, however, finally to check compatibility at least with the material supplier.

Metals

Ferrous	C
Copper and Brass	C
Bronze	LC
Bronze should have a maximum lead content of 20%	
Cadmium and Zinc	NC
Lead	NC
Aluminum	LC
Anodized aluminum completely compatible; unanodized varies in performance	
Magnesium	NC
Tin and Nickel	C

Paints and Finishes

Common Industrial Oil Resistant	NC
Epoxy and Phenolic	C

Vitreous Enamel



Plastics

Acrylic (includes Perspex)	C
Styrene	C
Epoxy	C
Phenolic	C
Silicone	C
P.V.C.	C
Nylon	C
Polypropylene	C
P.T.F.E.	C

Rubbers (Elastomers Seal Materials)

Natural	C
Neoprene	C
Nitrile	C
Butyl	C
Ethylene Propylene	C
Polyurethane	LC
Silicone	C
Viton (Fluorocarbon based)	LC

Other Seal Materials

Leather	NC
Cork	NC

Cleanliness / packaging

Houghto-Safe 273CTF is filtered to NAS 1638 Class 6 in the drum. It is available in 55 (U.S.) gallon drums (205 liter barrels), tote bins and bulk.

STORAGE/HANDLING/DISPOSABILITY

No health or safety hazards exist when **Houghto-Safe 273CTF** is stored, used and disposed of in accordance.

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 Houghton products are not to be construed as recommending the infringement of any patent.

