

HOUGHTO-SAFE® 620-A

Premium Grade Fire Resistant Hydraulic Fluid (HFC-Water Glycol)

DESCRIPTION

HOUGHTO-SAFE 620-A is a clear fluid of high lubrication incorporating additives which ensure long fluid life, excellent pump wear characteristics and protection against corrosion.

Particular attention has been given to inhibiting against vapour phase corrosion. Our manufacturing plants and laboratory facilities in the region will maintain **HOUGHTO-SAFE 620-A** to rigid quality control standards. **HOUGHTO-SAFE 620-A** has been developed as a maximum safety fluid for hydraulic use near open flame or high temperature areas. A hazard exists wherever heat, molten metal or flames are near hydraulic equipment. Even a minute fracture in a line or fitting can send a combustible spray of oil into the heat source. Severe injury, property damage, destruction of plant and machinery and production delays can be caused by the ensuing fire.

FEATURES

- Vickers Pumps Approval
- High Degree of Fire Resistance
- Non-Explosive
- Corrosion Inhibited
- Good Lubrication
- High Viscosity Index
- Stable in Service
- Long Term Economy
- Synthetic Rubber packing not affected
- H.F.C. Classification - ISO 46

TYPICAL VALUES

Product Appearance	Red Fluid
Kinematic Viscosity @40°C	43 cSt
pH Neat	9.5
Specific Gravity @15°C	1.080 kg/L
Viscosity Index	> 200
Pour Point	-51°C
Flash Point (ASTM D 92)	None
Fire Point (ASTM D 93)	None
Surface Tension	35mN/m

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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This document contains information based on data that is believed to be correct. However, the product may not be applicable to all uses and operating environments. No warranty or guarantee is expressed or implied.

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TYPICAL PROPERTIES

Typical Viscosity

@ 10°C:	168 cSt
@ 20°C:	100 cSt
@ 40°C:	43 cSt
@ 60°C:	22 cSt

Coefficient of Thermal Expansion : $7 \times 10^{-4} / ^\circ\text{C}$

Sonic Velocity: 1748 m/s

Specific Heat: 3.4 kJ/kg/°C @ 25°C and 1013 mbar

Thermal Conductivity: 0.45 Watts/m²(°C/m)

Compressibility: $3 \times 10^{-5}/\text{atm}$ @ 20°C

Bulk Modulus: $3.3 \times 10^4 \text{atm}$ @ 20°C

RELATED PRODUCTS

Hydrolubric range: HFA water soluble or synthetic fire resistant Hydraulic Fluid

Houghto-Safe 5046W: HFB inverse-emulsion fire resistant Hydraulic Fluid

Houghto-Safe 620-TY: HFC Food grade fire resistant Hydraulic Fluid

Cosmolubric HF-130: HFD Polyol ester fire resistant Hydraulic Fluid

Cosmolubric B-230: HFD Vegetable based fire resistant Hydraulic Fluid

Houghto-Safe 1120: HFD Phosphate Ester fire resistant Hydraulic Fluid

SHELF LIFE & AVAILABILITY

Under normal conditions the recommended shelf life for **HOUGHTO-SAFE 620-A** is a minimum of Twenty four (24) months, unless otherwise specified.

HOUGHTO-SAFE 620-A is available in Pail, Drum or Tote. Other sizes may be available upon request, please contact your Houghton sales representative.

APPLICATION

HOUGHTO-SAFE 620-A can be safely used in virtually every type of hydraulic equipment to help prevent fire danger. Typical applications include -

- Pressure Die-casting Machinery
- Coke Oven Door Mechanisms
- Forging and Extruding Pressures
- Regulators and Controls
- Glass Forming Machines
- Ingot Manipulators
- Fork Lift Trucks
- Clamping Fixtures for Welding
- Furnace Charging & Tilting Mechanisms
- Centrifugal Casting Machines
- Dolomite Machines
- Rod and Strip Coilers and Up-enders
- Cranes
- Foundry Machines
- Hoists and Elevators
- Missile Handling Equipment

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COMPATIBILITY OF HOUGHTO SAFE 620-A WITH MATERIALS

The following table describes in general terms the compatibility of HOUGHTO-SAFE 620-A with a variety of materials and is intended as a useful guide. It is advisable, however, to finally check compatibility at least with material supplier.

CODE

C = Compatible

NC = Not Compatible

LC = Limited Compatibility

METALS

Ferrous	C
Copper and Brass	C
Tin and Nickel	C
Bronze	LC*
Aluminium	LC**
Cadmium and Zinc	NC
Lead	NC
Magnesium	NC

PLASTICS

Acrylic (inc. Perspex)	C
Styrene	C
Epoxy	C
Phenolic	C
Silicone	C
PVC	C
Nylon	C
Polypropylene	C
PTFE	C

RUBBERS (Elastomeric Seal Materials)

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

OTHER SEAL MATERIALS

Leather	NC
Cork (inc. Rubber)	NC

PAINTS & FINISHES

Epoxy and Phenolic	C
Vitreous Enamel	C
Common Industrial Oil	NC Resistance

FILTER MEDIA

Cellulose - Phenolic	C
Earth Type	NC

*: Bronzes should have a maximum lead content of 20%, **: Anodised aluminium completely compatible: un-anodised varies in performance, ***: Ether type polyurethane is compatible, other types are not