

**HOUGHTON ITALIA S.p.A.**

## ADVANTAGES

1. Safety during use – The product is NOT flammable
2. Excellent stability to oxidation allowing use for a long time
3. High viscosity index

## APPLICATIONS

HOUGHTO SAFE 620-E is used in oleodynamic devices close to heat, for both the total safety against fire risks and for the excellent quality of duration, resistance and lubrication, for example:

1. die casting machines
2. load and unloading devices for furnace

Conditions of use are different from the usual mineral oil based products and its use requires some simple precautions which are fully explained in the “General maintenance recommendations” and “Use and compatibility” data sheets.

## STORAGE

HOUGHTO SAFE 620-E maintains its chemical-physical and technical characteristics if stored in a sheltered place at temperatures ranging  $-5^{\circ}\text{C}$  –  $+40^{\circ}\text{C}$  for a maximum period of twelve months.

## SAFETY OF USE

The breaking of a duct causing the atomization of HOUGHTO SAFE 620-E close or direct on to a heat source does not cause any severe consequence since the product is NOT flammable.

This feature can be pointed out with the following test: HOUGHTO SAFE 620-E is heated up to  $100^{\circ}\text{C}$  and atomized at a 70 kg/cm pressure. It is then sprayed on the flame of a oxyacetylene torch or onto a steel plate heated to  $650^{\circ}\text{C}$  with NO FIRE.

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# HOUGHTO SAFE 620-E

## Data Sheet

### HF-C FIRE RESISTANT FLUID

HOUGHTO SAFE 620-E is a fire resistant fluid type HF-C (water-glycol), red coloured, performing good lubricating properties. It is indicated as an hydraulic fluid for oleodynamic devices.

Range of use of HOUGHTO SAFE 620-E is  $-15^{\circ}\text{C} \div +70^{\circ}\text{C}$ . Easily pumping in the systems starting from  $0^{\circ}\text{C}$ .

### CHEMICAL-PHYSICAL CHARACTERISTICS

Appearance	Red liquid
pH	9.8 – 10.2
Specific gravity at $15.5^{\circ}\text{C}$	1.065 -1.085
Viscosity at $40^{\circ}\text{C}$	38-42 cSt
Freezing point	Not measurable with ASTM method - Drain for gravity at temperature lower than $-35^{\circ}\text{C}$
Flash point	Not applicable
Specific heat	0.8 cal/gr.
Thermal conductivity coefficient	1.61 j/hr/m/ $^{\circ}\text{C}$
Maximum exercise temperature in tank	$60^{\circ}\text{C}$
Water content	40% about

$^{\circ}\text{C}$	$^{\circ}\text{F}$	SUS	cSt	$^{\circ}\text{E}$
-12.2	10	2000	440	58
-6.6	20	1400	304	40
-1.1	30	1050	226	27
+4.4	40	740	160	21
+10	50	600	130	17
+15.5	60	450	97	12.5
+21.1	70	360	78	10.2
+26.7	80	290	62.5	8.2
+38	100	200	43	5.6
+40	104	186	40	5.3

Viscosity index	ASTM D - 567 method	154
	ASTM D - 2270 method	201