

PRODUCT DATA

COSMOLUBRIC HF-130

COSMOLUBRIC HF-130, a synthetic hydraulic fluid of polyol ester family. Designed and formulated to be chemically stable to provide dependable industrial hydraulic service in areas of end use where operational conditions place severe physical demands on the hydraulic fluid medium.

COSMOLUBRIC HF-130 is characterized by natural thermal stability, good viscosity/temperature relationship and effective lubrication characteristics. Further, a formulation determined by research and confirmed by field service, to yield the best performance by the selective supplementation of additives to enhance performance traits in the important areas of corrosion protection, metal passivation, oxidative inhibition and hydrolytic stability.

COSMOLUBRIC HF-130 is a versatile product with numerous functional advantages including high temperature operational capabilities due to significant autogenous ignition temperature values, high boiling, flash and fire points. However, it is pertinent and worthy of note that a hydraulic fluid's high temperature properties, as compared to petroleum products, are not necessarily a true measure of the material's fire resistance or capacity to resist ignition.

Where ignition sources are in close proximity to hydraulically operated equipment, the protection to life and property can best be insured by the use of "Houghto-Safe Fire Resistant Fluids", which have served all forms of hazardous applications in both the industrial and military arena for in excess of three decades.

COSMOLUBRIC HF-130 is approved by Factory Mutual as a less hazardous hydraulic fluid.



HOUGHTON CANADA INC.

P.O. Box 113, Station "D"
100 Symes Rd.

Toronto, Ontario M6P 3J5

Ph (416) 763-4691

Fx (416) 763-3167

www.houghton.ca

TYPICAL PHYSICAL PROPERTIES

Appearance Clear amber, mobile fluid

Viscosities	<u>SUS</u>	<u>cSt</u>
@ 100°F	305	65.8
@ 210°F	68	12.3
@ 32°F	2150	466
@ 0°F	8850	1922
@ 40°C	282	60.7
@ 100°C	67	12.2
@ 0°C	2150	466
@ -18°C	8850	1922

Viscosity Index, ASTM 2270	150
Pour Point, ASTM D97, °C/°F	-23/-10
TAN, ASTM D974 mg KOH/gm	3
Specific Gravity ASTM D1298 @ 60/60°F, 20/20°C	0.92
Pounds per Gallon	9.2
Flash Point, ASTM D92, °C/°F	290/555
Fire Point, ASTM D92, °C/°F	324/615
A.I.T., ASTM 2155, °C/°F	405/760

CORROSION PROTECTION

Copper Strip Tarnish Test
ASTM D130 Procedure
Condition of Copper Panel 1b.

Rust-Preventing Characteristics
ASTM D665A Procedure

24 hours	Pass
48 hours	Pass
72 hours	Pass

STABILITY

Hydrolytic Stability, ASTM D2619 Procedure

Test Results:

Copper weight loss, mg/cm ²	0.02	
Acidity of water layer, mg KOH	1.4	
TAN change in fluid, mgs KOH/gm	+1.2	
Copper catalyst, appearance		Clean and bright
Sludge Formation	Nil	

PUMP TEST DATA

ASTM D 2882 Procedure

Pump	Vickers Vane V104C-10
Pressure, psi	2000
Temperature, °F	150
Speed, rpm	1200
Pump output, gpm	7.5
System Capacity, gals.	5
Filtration, micron rating	10
Test period, hours	288
Cam Ring Wear, mgs	9
Vane Set Wear, mgs	6
Total Wear Ring & Van Set, mgs.	15
Wear Rate, mg/hr	0.05

SEAL AND PACKING INFORMATION

COSMOLUBRIC HF-130 is compatible with the majority of commonly used elastomers. Compatible materials are best used for moving or dynamic seal applications, while for static sealing they are preferred but not essential when converting to **COSMOLUBRIC HF-130** from other fluids.

Buna N, (Nitrile) Viton, Teflon, Silicone are preferred, while Butyl, Ethylene Propylene and Neoprene should be considered as marginal.

SAFE HANDLING

COSMOLUBRIC HF-130 requires no unusual handling or health hazard precautions and is not considered hazardous by OSHA definition. Materials made use of in the compounding of **COSMOLUBRIC HF-130** are widely used in a variety of military and industrial applications and have a history of event free manufacture and there are no reported instances of toxicity problems. However, it is suggested that standard industrial hygiene be practiced. Although not normally required, precautions can be taken by the use of protective goggles and gloves.

Spills can be absorbed in dry absorbent materials, swept up and treated as waste oil, disposed of in landfill or incinerated according to local, state and federal anti-pollution regulations.

HEALTH ASPECTS

Ingestion: Ingestion should be avoided. The handling of food or drink should not be permitted in the use area.

Skin Contact: Prolonged or repeated skin exposure may cause mild irritation to some individuals and should be avoided.

EMERGENCY TREATMENT

Oral Ingestion: Induce vomiting and consult physician.

Eye Contact: Irrigate with copious amounts of plain, warm water for at least 15 minutes and obtain medical attention.

Skin Contact: Follow standard industrial hygiene measures. Wash with soap and water. Launder soaked clothes prior to reuse.

STORAGE STABILITY

COSMOLUBRIC HF 130 is a chemically stable product. It can be stored in closed containers for prolonged periods with no deleterious effects. Shelf life – one (1) year.

SHIPPING INFORMATION

Containers: **COSMOLUBRIC HF-130** is shipped in bulk and 205 litre drums.

Shipping Classification: Hydraulic system fluids, other than petroleum.

STORAGE / HANDLING / DISPOSABILITY

No health or safety hazards exist when **COSMOLUBRIC HF-130** is stored, used and disposed of in accordance with the Material Safety Data Sheet for this product.

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.

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