

Mabanol Helium Hyd HFC 46

High-performance HFC hydraulic fluid

Application

Mabanol Helium Hyd HFC 46 is an aqueous, flame-retardant hydraulic fluid complying with the HFC classification in accordance with DIN 51502, meeting the highest requirements in industry. The fluid is biodegradable.

Its area of application specifically covers use in critical areas, especially in foundries, the steel and aluminum industry in hydraulic systems, in which there is a potential fire hazard due to the presence of high-temperature materials.

Properties

Mabanol Helium Hyd HFC 46 contains approx. 45% water, thereby meeting the highest fire protection requirements. At the same time, the remaining 55% of active ingredients provide very good lubrication. Tests have shown that a water content >50% increases the tendency to wear due to poor lubrication, whereas a water content of <40% has a negative effect on fire resistance attributes. Mabanol Helium Hyd HFC 46 has therefore been adjusted to the optimal concentration of water and active ingredients.

Mabanol Helium Hyd HFC 46 is free of monoethylene glycol (also called EG, MEG or ethylene glycol). Due to its low cost, this substance is often used in larger quantities (>20%) in most hydraulic fluids formulations, especially among simpler HFC fluids, but usually leads to more wear as opposed to using higher-quality glycols.

Mabanol Helium Hyd HFC 46 contains corrosion inhibitors that ensure corrosion protection in both the liquid as well as the gas phase. This is particularly important for machines that are not running continuously or not running on a full tank.

Mabanol Helium Hyd HFC 46 enables corrosion protection for aluminum, copper, bronze, cast iron, steel and other common metals in hydraulic systems.

Systems made of tin, (hard/soft) solder, lead, zinc, cadmium or magnesium should not be operated with aqueous hydraulic media.

Mabanol Helium Hyd HFC 46 is compatible with common elastomers such as Buna-N®, butyl rubber, EPDM, Viton® and Teflon®.

Data

	Test method	Unit	46
Density	ASTM D 4052	g/cm ³	1,08
Viscosity at 40°C	DIN 51562	mm ² /s	44
Viscosity at 100°C	DIN 51562	mm ² /s	9
Viscosity Index	DIN ISO 2909		195
pH	DIN 51369		9,5 – 9,9
Flash point	ASTM D 92	°C	none
Pourpoint	DIN ISO 3016	°C	<- 30

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The above values may vary within the commercial limits.

Customs Tariff No.: 3403 9900