

## Mabanol Helium Hyd Eco Syn 46

Biodegradable hydraulic oil according to ISO 15380



### Application

Mabanol Helium Hyd Eco Syn 46 is a zinc and ash-free, rapidly biodegradable high-performance hydraulic oil with excellent viscosity-temperature behavior. The targeted selection of active ingredients in connection with synthetic hydrocarbons makes it possible to combine biodegradability with the requirements of a high-performance hydraulic oil in one product. It was specially developed for use in stationary and mobile hydraulic units when used in environmentally sensitive areas such as construction, agriculture and forestry, e.g. excavators, bulldozers, wheel loaders, forestry machines, locks, sewage treatment and weir systems. The product is particularly suitable for highly stressed hydrostatic drives and high-pressure hydraulic systems, but can also be used in spur gears or as a circulating oil for plain bearings, provided that the relevant viscosity regulations are observed.

### Properties

Mabanol Helium Hyd Eco Syn 46 offers exceptional wear and corrosion protection for a long service life of the hydraulic components. The excellent aging stability, even in the presence of water, ensures good filterability, prevents deposits and sticking and thus enables long oil change intervals.

The high natural viscosity index supports a permanent multigrade character for use at high and strongly fluctuating temperatures. The low tendency to foam, the good water and air separation properties and high seal compatibility contribute to trouble-free operation. Mabanol Helium Hyd Eco Syn 46 meets the requirements of DIN 51524 T3 and ISO 15380 and has been awarded the EU Ecolabel.

### Standards / Specifications

- AIST 126 & 127
- CINCINNATI MACHINE P70
- DIN 51 524 T3 – HVL
- Eaton E-FDGN-TB002-E
- EU Ecolabel: registration no. NL/027/024
- German Steel SEB 181222
- ISO 11158 HV
- ISO 15380
- Parker Denison HF-0, HF-6e
- ZF TE-ML 07H

### Recommended for

- CAT-BF1, BF2
- CNH MAT 309
- Danfoss Power Solutions-520L0463
- Komatsu Forest
- Palfinger
- Poclain Hydraulics
- Volvo Hydraulics

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## Data

	Method	Unit	Value
Density at 15°C	ASTM D 7042	g/cm <sup>3</sup>	0,84
Viscosity at 40°C	ASTM D 7042	mm <sup>2</sup> /s	43
Viscosity at 100°C	ASTM D 7042	mm <sup>2</sup> /s	7,9
Viscosity Index	ASTM D 7042		157
Flash Point COC	DIN ISO 2592	°C	240
Pour Point	ASTM D 97 / DIN EN ISO 3016	°C	-40
Copper corrosion, 24h	DIN 51 811	Grade	1a
Demulsibility at 54°C	DIN ISO 6614	min.	20
Air Release	ASTM D 3427	min.	5
Biodegradability	OECD 301 B	%	>60
FZG Scuffing A/8.3/90	DIN 51354/2	FLS	>12
Tapered roller shear test, loss (20h)	CEC L-45-A-99	%	4,7
TOST aging test (wet)	ASTM D 943	h	>1.000
RPVOT - Oxidation Stability	ASTM D 2272	min.	>1.500

Updated in April 2023

The above values may vary within the commercial limits.

Customs Tariff No.: 3403 1920