



RAVENOL BIO-Hydraulikoel HEES 46

Hydraulic fluid based on easily biodegradable ester.

RAVENOL BIO-Hydraulikoel HEES 46 is based on synthetic, easily biodegradable ester and a powerful, environmentally friendly combination of additives which gives the product excellent properties regarding oxidation stability, corrosion, low temperatures as well as EP behaviour.

Compared with products of vegetable triglyceride base, RAVENOL BIO-Hydraulikoel HEES 46 has much better high temperature oxidation stability.

Application Notes

RAVENOL BIO-Hydraulikoel HEES 46 is used wherever there is the danger of hydraulic fluid leaking into the ground or waste water. This includes all equipment operating in or near areas of water purification or water protection or near surface water, such as e.g. sewage treatment plants, dredging ships and floating dredges, lock hydraulics and river weirs, pipe and tunnel diving machines, - hydraulic aggregates in forests and on plains, earth moving machines in water collecting areas, forestry machines.

Quality Classifications

RAVENOL BIO-Hydraulikoel HEES 46 is tried and tested for aggregates specifying:

Specifications

Rexroth Bosch Group: RE/ RD 90221-01/02.10

Practice and tested in aggregates with filling

VDMA 24568/ ISO 15380

Characteristic

RAVENOL BIO-Hydraulikoel HEES 46 offers:

- Meets the requirements of the Federal Ministry for consumer protection, alimentation and agriculture regarding good biodegradability and technical specifications. Due to this these products are eligible according to FNR-guide lines.
- On account of the used raw materials, RAVENOL BIO-Hydraulikoel HEES 46 is classified as water polluting class NWG (not water-polluting) – German classification.

Characteristics	Unit	Data	Audit
Colour		gelbbraun	visual
Density at 20°C	kg/m ³	920	EN ISO 12185
Viscosity at 40°C	mm ² /s	46,0	DIN 51 562
Viscosity at 100°C	mm ² /s	9,9	DIN 51 562
Viscosity index VI		199	DIN ISO 2909
Pourpoint	°C	-33	DIN ISO 3016
Flash point (COC)	°C	310	DIN ISO 2592
Corrosive Action		1A	DINEN ISO 2160
Foaming behavior SEQ I	ml	10/0	ISO 6247
Foaming Behavior SEQ II	ml	5/0	ISO 6247
Foaming behavior SEQ III	ml	10/0	ISO 6247
Demulsifying Power, 54°C (38 ml)	min.	45	DIN ISO 6614
Air release property at 50°C max.	min.	<1	ISO 9120
FZG-Test A/8,3/90		12	DIN 51 354

All indicated data are approximate values and are subject to the commercial fluctuations.

All information correspond to the best of our knowledge to the actual situation of the cognitions and our development. Subject to alterations. All references made to DIN-norms are only for the description of the goods. There is no guarantee. In case there will be any problems please contact the technical service.

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