

- Certificate / Product Information -

RAVENOL BIO-Hydraulikoel HEES 46

Art. 1321105

Hydraulic fluid based on easily biogedradable ester.

Description:

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 Directions:

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 Classification:

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

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

Recommendations: VDMA 24568/ISO 15380.

Technical Characteristics:

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.

Technical Values:

Characteristics	unit	data	test according to	
Colour		yellow-brown	visual	
Density at 20°C	kg/m ³	920	EN ISO 12 185	
Viscosity at 40°C	mm ² /s	46,0	DIN 51 562	
	at 100°C	mm ² /s	9,75	DIN 51 562
Viscosity Index VI		186	ISO 2909	
Pour point	°C	<-30	DIN ISO 3016	
Flash point (COC)	°C	>310	DIN ISO 2592	
Corrosivity to copper		1A	DINEN ISO 2160	
Foam behaviour SEQ I	ml	10/0	ISO 6247	
Foam behaviour SEQ II	ml	5/0	ISO 6247	
Foam behaviour SEQ III	ml	10/0	ISO 6247	
De-emulsification Value, 54°C (38 ml)	min.	45	DIN ISO 6614	
Air release characteristics at 50°C max.min.		<1	ISO 9120	
FZG-Test A/8,3/90 Damage loading step		12	DIN 51 354	

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