



## RAVENOL BIO-Hydraulikoel HEES 46



ART.-NR. 1321105

20 L | 1321105-020  
20 L | 1321105-B20  
1000 L | 1321105-700

**SPECIFICATIONS** DIN 51 524 TEIL 1, 2, 3 | EATON BROCHURE 03-401-2010 (DRY ASTM D943) | BLAUER ENGEL | EU ECOLABEL | ISO 15380 HEES (DRY ISO 4263-3)

**FABRICATION** BIODEGRADABLE

**RECOMMENDATIONS** JCMAS P042 HKB | PARKER DENISON HF-1, HF-2, HF-6 (DRY ASTM D4310) | SWEDISH STANDARD SS 15 54 34 CATEGORY V (DRY ASTM D943) | USDA BIOPREFERRED® | VDMA 24568 | VDMA 24570 | US VESSEL GENERAL PERMIT (VGP)

**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.

**RAVENOL BIO-Hydraulikoel HEES 46** can be used year-round due to its outstanding low-temperature behavior and provides excellent wear and corrosion protection.

## 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.

## Characteristics

**RAVENOL BIO-Hydraulikoel HEES 46** offers:

- Biodegradability
- Excellent corrosion protection
- Excellent cold behavior

Property	Unit	Data	Audit
Density at 20°C	kg/m <sup>3</sup>	917	EN ISO 12185
Colour		gelb	visual
Viscosity at 100°C	mm <sup>2</sup> /s	9,45	DIN 51 562



Property	Unit	Data	Audit
Viscosity at 40°C	mm <sup>2</sup> /s	46,0	DIN 51 562
Viscosity index VI		190	DIN ISO 2909
Pourpoint	°C	-33	DIN ISO 3016
Flash point (COC)	°C	315	DIN ISO 2592
Corrosive Action		1A	DIN EN 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
Air release property at 50°C max.	min.	2	ISO 9120

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.

Release: : 04. December 2019