

# Product information

## Meguin Hydraulikoel HEES 46 (biodegradable)



[www.blauer-engel.de/uz178](http://www.blauer-engel.de/uz178)

### Description

Biodegradable hydraulic fluid based on high-quality synthetic esters. Has outstanding viscosity-temperature properties. Due to outstanding cold-weather properties, can be used year-round. EP additives and the capacity for polar adherence ensure good protection against wear, rust and corrosion. Rapidly biodegradable and miscible with all mineral-based products. Mainly for hydraulic systems in equipment which primarily operates outside and is subjected to large fluctuations in temperature and where there is a high risk of oil leakage into the environment. Examples are mobile cranes and mechanical excavators in agriculture and forestry, floating dredgers, sluice hydraulic systems and snowcats, etc.

### Specifications / Approvals

Blauer Engel • Hydrauliköl DIN 51524 Teil 2 HLP 32 • Hydrauliköl DIN 51524 Teil 2 HLP 46 • Hydrauliköl DIN 51524 Teil 2 HLP 68 • Hydrauliköl DIN 51524 Teil 3 HVLP 46 • Hydrauliköl DIN ISO 15380 HEES 46 • Hydrauliköl VDMA 24568 HEES 46

### Characteristic data

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| ISO viscosity class                     | VG 46<br>DIN 51519                       |
| Density at 15 °C                        | 0,92 g/cm <sup>3</sup><br>DIN 51757      |
| Viscosity at 40 °C                      | 46 mm <sup>2</sup> /s<br>ASTM D 7042-04  |
| Viscosity at 100 °C                     | 9,4 mm <sup>2</sup> /s<br>ASTM D 7042-04 |
| Viscosity index                         | 194<br>DIN ISO 2909                      |
| Pour point                              | -45 °C<br>DIN ISO 3016                   |
| Flash point                             | 280 °C<br>DIN ISO 2592                   |
| Demulgation characteristics at 54 °C    | 20 min<br>DIN ISO 6614                   |
| Air separation capacity                 | <5 min<br>DIN ISO 9120                   |
| Foaming behavior at 24 °C               | 30/0 ml<br>ISO 6247                      |
| Foaming behavior at 93.5 °C             | 50/0 ml<br>ISO 6247                      |
| Foaming behavior at 24 °C after 93.5 °C | 30/0 ml<br>ISO 6247                      |
| Neutralization number                   | 0,5 mg KOH/g<br>DIN 51558 Teil 1         |

### Characteristic data

|                                             |                                                                        |
|---------------------------------------------|------------------------------------------------------------------------|
| Oxide ash                                   | <0,01 g/100g<br>DIN EN ISO 6245                                        |
| Corrosion effect on steel                   | 0-A<br>DIN ISO 7120                                                    |
| Corrosion effect on copper                  | 1-100 A3<br>DIN EN ISO 2160                                            |
| FZG gear rig test, standard test A/8, 3/90  | Schadenskraftstufe >12,<br>Spez.Gew.Änderung <0,27 mg/KWh<br>DIN 51354 |
| Behavior towards nitrile rubber (NBR) seals | verträglich<br>DIN 53538 Teil 1                                        |
| Biodegradability after 21 days              | > 90 %<br>OECD 301 F                                                   |

### Available pack sizes

|                           |              |
|---------------------------|--------------|
| 20 l Canister plastic     | 8721<br>D-GB |
| 60 l Black plate barrel   | 8722<br>D-GB |
| 200 l Black plate barrel  | 8723<br>D-GB |
| 1.000 l Deposit container | 9594<br>D-GB |