

ECOSYNT HEES 46

Rapidly biodegradable hydraulic oil (EAL) according to DIN ISO 15380

Description

ECOSYNT HEES 46 is a rapidly biodegradable hydraulic oil (EAL) based on saturated esters that meets the latest requirements of DIN ISO 15380 and is not classified under the GHS. The minimum requirement for biodegradability according to OECD 301B is exceeded. The product is not bioaccumulative and meets the aquatotoxicity requirements according to OECD 201, 202 and 236 for algae, bacteria and fish. In addition, the share of renewable raw materials exceeds 25%. Listed according to SS 15 54 34 (Swedish Standard environmental label), ECOSYNT HEES 46 is classified as an EAL pressure fluid.

ECOSYNT HEES 46 has established itself for many years as a high-performance hydraulic oil on the international market. The official listing according to Bosch Rexroth (RDE 90245) clearly underlines this performance capability and proves its suitability for use in high-performance hydraulic systems of modern vehicles and machinery.

Product attributes

- Excellent material compatibility
- High wear protection, shear-stable
- Oxidation stable
- Good air release properties
- Very good filterability (dry and wet)
- Meets DIN ISO 15380 requirements for HEES fluids
- Readily biodegradable according to OECD 301B
- Meets Swedish Standard SS 15 54 34
- Free from GHS classification
- 25% renewable raw materials
- Listed according to Bosch Rexroth RDE 90245

Field of application

Ideal for mobile and stationary hydraulic systems in construction, forestry, municipal and agricultural machinery, tunnelling or shoring works in water protection areas. ECOSYNT HEES 46 can also be used wherever a pressure fluid according to DIN 51524-2 (HLP) and DIN 51524-3 (HVLP) is specified. The product is particularly recommended for all systems where a listing according to Bosch Rexroth RDE 90245 is required.

Note

When changing from mineral or semi-synthetic oils to ECOSYNT HEES 46, the oil change requirements according to DIN ISO 15380 must be observed and the approval criteria of the respective machine manufacturers apply. For all other questions regarding miscibility and compatibility, the MOTOREX customer service should be contacted.

Specifications

BOSCH REXROTH RDE 90245, DIN ISO 15380 / 2024, US EPA/VGP:13, CLASSIFIED AS EAL, OECD 301B, ISO 6743-4 HEES, ISO 6743-4 HV, SAUER-DANFOSS H1P078, SAUER-DANFOSS H1B110, SWEDISH STANDARD SS 15 54 34, VDMA 24568, VDMA 24570

Safety & Performance

DIN 51524-2 HLP, DIN 51524-3 HVLP, VOLVO 98610



The above information corresponds to the current state of our knowledge. We reserve the right to make changes. The performance characteristics indicated are based on testing and production tolerances standard in this industry. A safety data sheet is available.

MOTOREX USA Inc.

993 Federal Road
Brookfield, CT06804-1108, United States
Tel. +1 203-775-1291
motorex.com
30.04.2026 / 24

MOTOREX AG

Bern-Zürich-Strasse 31
4901 Langenthal, Schweiz
Tel. +41 62 919 75 75
motorex.com

ECOSYNT HEES 46

Technical Data

Properties	Test according to	Unit	Values
Aspect			clear
Colour			green
Viscosity			ISO VG 46
Density at 20 °C		g/cm ³	0.899
Viscosity at -20°C	DIN 51562-1	mm ² /s	1,766.0
Viscosity at 40°C	DIN 51562-1	mm ² /s	46.0
Viscosity at 100°C	DIN 51562-1	mm ² /s	8.5
Viscosity index	DIN ISO 2909		162.0
Flash point	DIN EN ISO 2592	°C	> 200
Pourpoint	ASTM D5950	°C	-49
Iodine value	DIN 53241-1	gJod/100g	< 5
Biological degradability	OECD 301B	%	> 60
FZG - test	DIN 51354		> 12

The above information corresponds to the current state of our knowledge. We reserve the right to make changes. The performance characteristics indicated are based on testing and production tolerances standard in this industry. A safety data sheet is available.

MOTOREX USA Inc.
 993 Federal Road
 Brookfield, CT06804-1108, United States
 Tel. +1 203-775-1291
 motorex.com
 30.04.2026 / 24

MOTOREX AG
 Bern-Zürich-Strasse 31
 4901 Langenthal, Schweiz
 Tel. +41 62 919 75 75
 motorex.com