



Rando[®] HEES 46

Premium performance synthetic hydraulic fluid

Product description

Rando HEES 46 is a premium performance, environmentally friendly synthetic hydraulic fluid, designed to offer a wide operating temperature window and extended service life.

Rando HEES 46 is formulated with saturated synthetic esters, to offer superior oxidation stability.

Customer benefits

- Wide service temperature window, from -30°C to +90°C with short increases to +120°C, offers flexibility in a range of climates
- Environmentally compatible OECD 301B: >81%
- Promotes lower service temperature operation through lower friction values
- Offers extended oil change intervals and 'for life' application due to high oxidation resistance
- Not subject to special labelling according to "GefStoff" (Regulations for hazardous materials)
- WGK 1 rating according the German WGK Classification

Product highlights

- **Wide service temperature window**
- **Ecolabel-'Euro Margerite' compliant**
- **Meets Swedish Standard SS 15 54 34**
- **Extended oil drain**
- **Offers long fluid service life**
- **WGK 1 WGK Classification**

Selected specification standards include:

DIN ISO 15 380 HEES	Ecolabel (registration-n°: DE/027/087)
Positieve olielijst voor MIA-Vamil-regelingen	VDMA 24568, HEES
German WGK Classification 1	SS 155434 AAV 46 Environmentally acceptable
Swedish-Standard 15 54 34 Environmentally acceptable	

Applications

- Rando HEES 46 is suited to many stationary and mobile hydraulic systems as recommended by ISO 15380, HEES
- Rando HEES 46 should be used in situations where there is a danger of soil or water pollution
- Typical applications are mobile hydraulics in drainage areas and road construction, forestry and timber industry, vehicles for ski racing track maintenance, municipal vehicles and facilities, auto hoist, hydraulic engineering, fork lift, horticulture and landscaping, sewage plants, fresh water recovery, floating dredgers, sluices, water maintenance boats, tunnelling machines, off-shore equipment, concrete pumps, track laying machines

Approvals, performance and recommendations

Approvals

- Ecolabel (registration-no: DE/027/087)
- Positieve olielijst voor MIA-Vamil-regelingen
- Swedish-Standard-15 54 34 Environmentally acceptable (www.sp.se/km/hydraul)



Performance

- DIN ISO 15 380 HEES
- VDMA 24568, HEES
- SS 155434 AAV 46 Environmentally acceptable

Typical test data		
Test	Test Methods	Results
Viscosity Grade		46
Shelf Life: 48 months from date of filling indicated on the product label		
Kinematic viscosity at 40°C, mm ² /s	DIN 51 562	47.21
Kinematic viscosity at 100°C, mm ² /s	DIN 51 562	8.4
VI	DIN ISO 2909	155
Appearance	Visual	Yellow, bright and clear
Colour	ISO 2049	L1.5
Iodine Nr	—	<1 Saturated ester
Density at 15°C, kg/l	ISO 12185	0.9667
Pour Point, °C	ISO 3016	-54
Flash Point, °C	ISO 2592	280
Copper corrosion, 3h/100°C	ISO 2160	1A
Steel corrosion, A	ISO 7120	Pass
Foam Seq I, ml	ISO 6247	20/0
Foam Seq II, ml	ISO 6247	30/0
Foam Seq III, ml	ISO 6247	30/0
Air release at 50°C, min	ISO 9120	6
Demulsibility at 54°C, min	ISO 6614	25

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Disclaimer Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheet's.

Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS's are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.

A Chevron company product