

swd HYDRALUBE Bio HEES

ISO VG 32, 46 & 68

Biodegradable Synthetic Hydraulic Fluid

Description and Properties

swd HYDRALUBE Bio HEES - hydraulic fluids are produced with polyol esters and an additive package, which improves the corrosion- and wear protection as well as the aging properties.

Because of the speedy biodegradability their environmental compatible use is recommended in machines, devices and plants, which are working in ecological sensitive areas.

The low pour point and the high viscosity index potentiate their use over a wide temperature range as a multigrade hydraulic fluid. The very good oxidation stability assures trouble-free operation at extended oil drain intervals. Thus swd HYDRALUBE Bio HEES - hydraulic fluids outclass comparable products on base of rapeseed oil clearly.

Application

swd HYDRALUBE Bio HEES -hydraulic fluids do not affect commercial varnishes. Though they are miscible with mineral oil, it should be avoided to do this because of the loss of biodegradability.

Before usage in hydraulic devices, the machine constructor's recommendations should be regarded, or the changeover guidelines according VDMA-sheet 24 569 should be respected.

Qualification

swd HYDRALUBE Bio HEES - hydraulic fluids meet the technical minimum requirements for HEES-oils according VDMA-sheet 24 568 of 1994-03 and concerning essential lubrication properties they meet the requirements for hydraulic oils HLP and HVLP according DIN 51 524 part 2 and 3.

They are listed in the White Paper of the FNR (Technical Agency for Renewable Primary Products) and thus they meet the allocation conditions for the initial installation of hydraulic units.

Typical Values

| swd HYDRALUBE Bio HEES | unit | value | | | method / specific |
|------------------------------|-------|------------|------------|------------|-------------------|
| ISO-VG class | | 32 | 46 | 68 | DIN 51 519 |
| Density at 15°C | kg/m³ | 914 | 924 | 934 | DIN 51 757 |
| Kinematic viscosity at 0°C | mm²/s | 228 | 370 | 585 | DIN 51 562 |
| Kinematic viscosity at 40°C | mm²/s | 32 | 46 | 68 | DIN 51 562 |
| Kinematic viscosity at 100°C | mm²/s | 7,4 | 9,5 | 12,6 | DIN 51 562 |
| Viscosity index | | 195 | 183 | 180 | DIN ISO 2909 |
| Pour point | °C | -39 | -39 | -33 | DIN ISO 3016 |
| Flash point | °C | 270 | 285 | 300 | DIN ISO 2592 |
| Biodegradability | % | >90 | >90 | >90 | CEC-L-33-A-93 |
| Operating temperature range | °C | -20 to +90 | -20 to +90 | -20 to +90 | DIN ISO 2592 |
| Article-No. : | | 34932 | 34946 | 34968 | |

Specification variations in these characteristics may occur.
The instructions of manufacturer must be regarded.
Further informations to be available by MSDS.

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