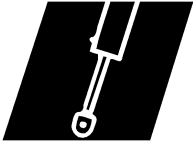


BIOHYDRAN TMP



Hydraulic oil



Biodegradable Hydraulic Fluid complying with the European Ecolabel criteria.

APPLICATIONS

Hydraulic systems

- **BIOHYDRAN TMP** is a biodegradable synthetic hydraulic fluid offering good lubricating properties. It was designed for demanding hydraulic systems requiring hydraulic fluids with reinforced anti-wear properties.
- **BIOHYDRAN TMP** is recommended for use when incidental spillage in environmentally sensitive areas can occur, eg : forestry works, navigation, off-shore, water catchment areas, ski resorts, hydroelectric stations etc...

SPECIFICATIONS

Specification European Ecolabel

- ISO 15380: HEES
- Registration number : FR / 27 / 02 AFNOR CERTIFICATION.
Reduced harm for water and soil during use. Reduced CO₂ emissions.
For more information on the European Ecolabel, please consult:
<http://ec.europa.eu/environment/ecolabel/>

Swedish Standard

- Meets the requirements of the Swedish Standard SS 15 54 34.

ADVANTAGES

- Produced with renewable raw materials, **BIOHYDRAN TMP** contributes to CO₂-emission reduction.
- High natural viscosity index gives **BIOHYDRAN TMP** a wide temperature operating window (-20°C to 80°C).
- The very high shear stability of **BIOHYDRAN TMP** will ensure the hydraulic equipment is kept to an optimum efficiency during the fluid service life.
- The good lubricating properties, as well as the very good wear and corrosion protection, will extend the life of the hydraulic system's moving components

TECHNICAL ADVICES

- As recommended in ISO 15380, please check with the equipment supplier to see whether the installation is suitable for the use of synthetic ester hydraulic fluids.
NBR seals swell more in synthetic esters than in classical mineral base oils.
- Contact our technical service for advice changing from HM or HV fluids to Biodegradable HEES hydraulic fluids.

TYPICAL CHARACTERISTICS	METHODS	UNITS	BIOHYDRAN TMP			
			32	46	68	100
Appearance	visual	-	Clear	Clear	Clear	Clear
Density at 15°C	ISO 3675	kg/m ³	913	920	923	927
Kinematic Viscosity at 40°C	ISO 3104	mm ² /s	32	46	68	100
Kinematic Viscosity at 100°C	ISO 3104	mm ² /s	7,4	9,3	12,2	15,7
Viscosity Index	ISO 2909	-	195	185	180	175
Flash Point	ISO 2592	°C	270	280	300	300
Pour Point	ISO 3016	°C	- 42	- 42	- 39	- 33

Above characteristics are mean values given as an information

TOTAL LUBRIFIANTS Industrie & Spécialités

02-04-2012 (Supersedes 12-09-2011)

BIOHYDRAN TMP

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This lubricant used as recommended and for the application for which it has been designed does not present any particular risk.

A material safety data sheet conforming to the regulations in use in the E.C. can be obtained from your local commercial adviser or downloaded from www.quick-fds.com.