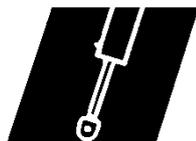


# BIOHYDRAN SE



Lubrication



High thermal stability biodegradable hydraulic fluid.

## APPLICATIONS

### Hydraulic systems

- Based on saturated synthetic esters **BIOHYDRAN SE** is designed for demanding hydraulic systems requiring hydraulic fluids with a high thermal stability and good lubricating properties.
- The excellent biodegradability and low eco toxicity make **BIOHYDRAN SE** particularly suitable when incidental spillages in environmentally sensitive areas can occur : forestry works, public works, water navigation, off-shore, water catchments areas, ski resorts, etc...

## SPECIFICATIONS

### STANDARD OEM

- ISO 15380 : HEES
- DENISON : HF1, HF2 & HF6 approved

### EUROPEAN ECO-LABEL SWEDISH STANDARD

- 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/>
- Meet the requirements of the Swedish Standard SS 15 54 34.

## ADVANTAGES

- **BIOHYDRAN SE** has a natural high and stable viscosity index. No viscosity loss due to shear is observed. This stable viscosity level ensures an optimum hydraulic efficiency during all the fluid life.
- The good lubricating properties and corrosion protection will extend the component life of hydraulic systems.
- The excellent oxidation stability of **BIOHYDRAN SE** offers extended drain intervals compared to classical mineral hydraulic fluids.
- The very low foaming tendency and fast air release limit air contamination in the circuit.
- **BIOHYDRAN SE** is miscible with classical HM and HV mineral hydraulic fluids.

## PRECAUTIONS

- It is recommended to check with the equipment supplier to see whether the installation is suitable for the use of synthetic ester based hydraulic fluids. **BIOHYDRAN SE** has a good compatibility level with NBR, HNBR, AU and FPM seals.
- Contact our technical service for advice changing from HM or HV fluids to **BIOHYDRAN SE**.

TYPICAL CHARACTERISTICS	METHODS	UNITS	BIOHYDRAN SE 32	BIOHYDRAN SE 46	BIOHYDRAN SE 68
Appearance	-	Visual	Clear and bright	Clear and bright	Clear and bright
Density at 15°C	ISO 3675	kg/m <sup>3</sup>	938	933	925
Kinematic Viscosity at 40°C	ISO 3104	mm <sup>2</sup> /s	32	46	68
Kinematic Viscosity at 100°C	ISO 3104	mm <sup>2</sup> /s	5,9	7,7	10,3
Viscosity Index	ISO 2909	-	150	146	142
Flash Point	ISO 2592	°C	255	280	280
Pour Point	ISO 3016	°C	- 42	- 42	-30
Biodegradability	OECD 310	Contain more than 98% of ultimately biodegradable substances			

Above characteristics are mean values given as an information

TOTAL LUBRIFIANTS  
Industrie & Spécialités  
20-12-2011 (supersedes 31-03-2011)  
BIOHYDRAN SE  
1/1



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 down loaded from [www.quick-fds.com](http://www.quick-fds.com).