

# Biohydran TMP

Biodegradable hydraulic fluid, Ecolabel certified

## APPLICATIONS

Hydraulic systems.

Biohydran TMP is a biodegradable synthetic hydraulic fluid offering good lubricating properties. It is designed for demanding hydraulic systems requiring hydraulic fluids with re-enforced anti-wear properties.

The excellent biodegradability and low eco toxicity make Biohydran TMP particularly suitable when incidental spillages in environmentally sensitive areas can occur, such as forestry works, public works, water navigation, offshore, water catchments areas, ski resorts, hydroelectric stations...

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. NBR seals is swelling more in synthetic esters than in classical mineral base oils.

Contact our technical service for advice on switching from HM or HV fluids to Biohydran TMP.

## ADVANTAGES

Produced with renewable raw materials, Biohydran TMP contributes to CO<sub>2</sub>-emission reduction.

High natural viscosity index gives Biohydran TMP a wide temperature operating window (from -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.



EU Ecolabel : FR/27/002

## SPECIFICATIONS

ISO 15380: HEES.

Ecolabel: FR/27/002 AFNOR CERTIFICATION

Reduced harm for water and soil during use. Reduced CO<sub>2</sub> emissions. For more information on the European Ecolabel, please consult: <http://ec.europa.eu/environment/ecolabel/>

Meets the requirements of the Swedish standard SS 15 54 34.

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 advisor or downloaded at [ms-sds.totalenergies.com](http://ms-sds.totalenergies.com)

## TYPICAL CHARACTERISTICS

| Properties         | Units              | Standards | Biohydran TMP                                            |     |      |      |
|--------------------|--------------------|-----------|----------------------------------------------------------|-----|------|------|
|                    |                    |           | 32                                                       | 46  | 68   | 100  |
| Appearance         | -                  | Visual    | Clear                                                    |     |      |      |
| Density at 15 °C   | kg/m <sup>3</sup>  | ISO 3675  | 913                                                      | 920 | 923  | 927  |
| Viscosity at 40°C  | mm <sup>2</sup> /s | ISO 3104  | 32                                                       | 46  | 68   | 100  |
| Viscosity at 100°C | mm <sup>2</sup> /s | ISO 3104  | 7.4                                                      | 9.3 | 12.2 | 15.7 |
| Viscosity index    | -                  | ISO 2909  | 195                                                      | 185 | 180  | 175  |
| Flash Point        | °C                 | ISO 2592  | 270                                                      | 280 | 300  | 300  |
| Pour point         | °C                 | ISO 3016  | -42                                                      | -42 | -39  | -33  |
| Biodegradability   | -                  | OECD 301  | Readily biodegradable according to Ecolabel requirements |     |      |      |

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