

DESCRIPTION

Synthetic biodegradable oil for stern tubes.

APPLICATIONS

- **BIONEPTAN** is a range of high quality synthetic biodegradable lubricant for stern tubes.
- **BIONEPTAN** is particularly recommended to lubricate sliding rolling bearings from stern tube in order to minimize environmental impacts.

PROPERTIES

- **BIONEPTAN** presents outstanding viscosimetric performances and good low temperature behaviour offering a very wide range of operating temperatures.
- Outstanding anti-wear and anti - corrosion properties.
- Compatible with the main common seals: VITON, PERBUNAN, NITRILE NBR, NEOPRENE, SILICONE...

SPECIFICATIONS

For BIONEPTAN 100

- European ECOLABEL, registration no. FR/27/02
- Environmentally Acceptable Lubricants (EAL) for 2013 Vessel General Permit (VGP)

APPROVALS

BLOHM & VOSS (SIMPLEX), WARTSILA PROPULSION.

CHARACTERISTICS

CHARACTERISTICS	METHODS	UNITS	BIONEPTAN		
			100	150	220
ISO Grade			100	150	220
Density at 15 °C	ISO 3675	kg/m ³	939	959	961
Kinematic viscosity at 40 °C	ISO 3104	mm ² /s	100	150	220
Kinematic viscosity at 100 °C	ISO 3104	mm ² /s	18.1	22	29
Viscosity index	ISO 2909	-	>170	>170	>170
Flash Point (COC)	ASTM D 92	°C	>250	>250	>250
Pour Point	ISO 3016	°C	- 40	- 32	- 28
Biodegradability	OECD 301 B	OECD 301 B	>60%	>60%	>60%
Foaming	ISO 6614	ml/ml	0/0	0/0	0/0

Characteristics of this chart are indicative typical values

HANDLING, HEALTH AND SAFETY

Lubricants consisting of synthetic oils with specific additives.

In normal conditions of use, these lubricants present no particular toxic hazard.

All lubricants, of any kind, should always be handled with great care, particularly avoiding any contact with the skin.

Prevent any risk of splashing, and keep away from combustible materials.

Store under cover and away from any risk of contamination.

A safety data sheet complying with current legislation is available on [www. quickfds.com](http://www.quickfds.com) or www.lubmarine.com.

The values shown above are typical values at the date of publication. TOTAL Lubmarine reserves the right to change these typical values without prior notice.



TOTAL LUBRIFIANTS
562 avenue du Parc de l'Île – 92029 Nanterre Cedex
Tel.: 33.1.41.35.59.23 – Fax: 33.1.41.35.20.92
www.lubmarine.com - rm.tma-diagomarplus@total.com

LUBMARINE 95/3GB - 1307