

# KLÜBERBIO RB 2-100 200 LTR

## Product group: 681 Product number: 210095

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# **Product information**

Klüberbio RB 2-100 is a synthetic, fully biodegradable stern tube oil based on an innovative and novel base oil blend with good aging and oxidation stability. In case of contact with water, the oil remains stable. Klüberbio RB 2-100 maintains its stability even under intense pressure and shear loads and forms a stable and strong hydrodynamic oil film under all operating conditions.

The lubricant meets the classification requirements for an Environmentally Acceptable Lubricant (EAL) in terms of biodegradability, toxicity and bio accumulation set in Appendix A of the EPA VGP (Vessel General Permit).

#### Features

- Compliant with the requirements for Environmentally Acceptable Lubricants (EAL) as defined by the EPA 2013 Vessel General Permit
- Biodegradable and non-toxic to marine organisms
- Shear stability
- Ageing stability
- Oxidation stability
- Compatible to use with standard FKM elastomers

## Benefits

- Environmentally-friendly
- Minimises harm to the marine environment in the event of leaks
- High-performing under high loads
- High-performing under high ageing and oxidation conditions
- Protects your stern tube from frictional and/or temperature damage
- Reduces leakage and contamination

#### Specification

#### General

General		Physical properties	
Invent Hazard Material (IMO/EU) classification	C-3	Appearance	
		Biodegradability of the base oil, acc. to OECD 301 F, (within 28 days) [%]	
		Density at 20°C [g/cm³]	
		Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D- 445/ASTM D 7042, 100 °C [mm²/s]	
		Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 $^\circ C \ [mm^2/s]$	

#### Technical data

ISO viscosity grade of the base oil, DINISO 3448	100
Shelf life [months]	36
Viscosity index, DIN ISO 2909	~ 170

Slightly turbid

>60

~0.94

~ 16.5

~ 100

#### Dimensions/Weight

Packing Size	200 ltr

#### Performance data

Hash point, DIN EN ISO 2592, Cleveland, open-cup apparatus [°C]	≥230
Lower service temperature	-25°C/-13°F
Pour point, DIN ISO 3016 [°C]	≤-30
Upper service temperature	100°C/212°F

#### **Documents**

#### SDoC and MD for IHM

### **Directions for use**

Klüberbio RB 2-100 is designed to lubricate white metal propeller liners and propeller shaft seals. Klüberbio RB 2-100 is generally miscible with petroleum-based and ester-based stern tube lubricants. However, to completely rule out imcompatibility between different additives, a miscibility test should be carried out.

The mixability with Klüberbio RM2-100 / 150 and Klüberbio RM8-100 has been tested and confirmed.

Before changing the lubricant, we recommend flushing the stern tube with Klüberbio RB 2-100. Klüberbio RB 2-100 must be approved by the OEM of your propeller shaft seal and bearing. If the oil is not approved or the specification of your seal or bearing changes, e.g. type, construction or material, we recommend that the OEM be consulted before hanging the lubricant. Due to the different elastomeric composition of seals, compatibility and other influencing factors relevant to the application should be checked under realistic conditions before serial use.

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