



## PRODUCT DATA SHEET

### EKO MARINE 2T OUTBOARD BIO

Biodegradable 100% synthetic lubricant for 2-stroke outboard engines

#### DESCRIPTION

EKO MARINE 2T OUTBOARD BIO is a biodegradable, 100% synthetic lubricant, suitable for water-cooled 2-stroke outboard gasoline engines of leisure boats and jet-skis. This lubricant provides a unique combination of high performance with low environmental impact.

EKO MARINE 2T OUTBOARD BIO is a solvent-free, ester-based lubricant, reinforced with an ash free additive package that improves lubricity and resistance to oxidation.

It is suitable for use in both premix and oil-injection systems. It is also suitable for direct fuel injection engines (DFI).

When used in premix systems, the lubricant must be used in the oil/fuel ratio specified by the manufacturer (up to 1:100).

Although specially designed for marine 2-stroke outboard engines, EKO MARINE 2T OUTBOARD BIO may also be used in some air-cooled 2-stroke engines such as 2-stroke chainsaw engines, as product meets the API TC+ quality level and passes successfully the Husqvarna 266 engine test.

#### SPECIFICATIONS

NMMA TC-W3, API TC+.

**Suitable for use:** Husqvarna 266 engine test

#### APPLICATIONS

- Water-cooled 2-stroke outboard gasoline engines of leisure boats and jet-skis.
- Two stroke air-cooled engines, always in accordance with manufacturer recommendations.
- Suitable for direct fuel injection engines (DFI).
- Particularly recommended for environmentally sensitive applications.



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### ADVANTAGES

- EKO MARINE 2T OUTBOARD BIO is a biodegradable lubricant with a high renewable carbon content, friendly to the environment.
- Provides excellent protection against rust and corrosion in the presence of seawater, resulting in longer engine life.
- Provides high protection against wear and abrasion at high speeds, thus increasing the life of the engine and all critical components.
- The excellent oxidation and thermal stability and the superior deposit control of the lubricant effectively protect against piston ring sticking and keep the engine clean, resulting in longer engine life.
- The ash free technology of lubricant minimizes the formation of deposits in spark plugs, protects against exhaust port blocking and reduces the risk of pre-ignition.
- Provides excellent performance at low temperatures, resulting in easy and quick start of the engine.
- Provides excellent engine protection against rust during long storage periods.

### TYPICAL CHARACTERISTICS

Properties	Methods	Units	EKO MARINE 2T OUTBOARD BIO
Density, 15°C	ASTM D4052	g/ml	0.936
Kinematic Viscosity, 100°C	ASTM D445	cSt	8.2
Kinematic Viscosity, 40°C	ASTM D445	cSt	47
Viscosity Index (VI)	ASTM D2270	-	156
Brookfield Viscosity, -25°C	ASTM D2983	mPa.s	4170
Acid Number (TAN)	ASTM D664	mg KOH/g	0.12
Base Number (TBN)	ASTM D2896	mg KOH/g	3.8
Pour Point	ASTM D5950	°C	-39
Sulfated Ash	ASTM D874	% w/w	0.01
Flash Point, COC	ASTM D92	°C	258
Renewable Carbon (C) content	Calculated	%	65
Biodegradability	OECD 301B	%	62

This data sheet provides basic information on the product as at the date of drafting. For further information regarding applications, please contact EKO ABEE Technical Support, tel. +30 210 5509 511.  
Advice on safe handling is provided in the Safety Data Sheet.



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### MIXING INSTRUCTIONS

<b>lubricant/gasoline ratio</b>	<b>lubricant</b>	<b>gasoline</b>
1:25	200 ml	5 lit
1:50	100ml	5 lit
1:100	50 ml	5 lit

### HEALTH AND SAFETY

Protect the environment while disposing of used product. Used lubricants should be collected at specific points to ensure they do not pollute the environment. Do not mix with solvents, brake fluids, antifreeze fluids and water, to allow for proper handling.

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