

PANOLIN[®] +
Swiss Oil Technology

The sustainable lubricant
concept for offshore and
marine applications



PANOLIN
ATLANTIS

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Swiss Oil Technology

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PANOLIN GREENMARINE for a greener future



- For 25 years PANOLIN ECLs* help protect the environment
- Today PANOLIN helps you reduce your carbon footprint
- PANOLIN ECLs prevent several tons of CO₂ emissions from your machinery

***ECLs** = **E**nvironmentally **C**onsiderate **L**ubricants

PANOLIN ECLs – environmentally considerate

The following PANOLIN ECLs have environment-considerate properties such as:

- Biodegradability: OECD 301 B/F, > 60 %, 28 days
- Biodegradability: OECD 306
- Aquatic toxicity: ISO 10523 (Algae)
ISO 14669 (Crustaceae)
OECD 201 Algae: EC₅₀, European Eco Label requirement > 100 mg/l
OECD 202 Daphnia: EC₅₀, European Eco Label requirement > 100 mg/l
OECD 203 Fish: LC₅₀, European Eco Label requirement > 100 mg/l
PARCOM Limit Test (Fish)

International Eco Labels



PANOLIN GREENMARINE – the sustainable concept



Our credo

Only economically viable, technically mature and environment-friendly concepts are truly sustainable

Part of the PANOLIN concept



PANOLIN lubricants with at least one of the following properties belong to the GREENMARINE concept:



Biodegradable.

Biodegradability and/or negligible aquatic toxicity as confirmed by diverse tests and eco-labels.



CO₂ reduction thanks to longer oil-change intervals (conservation of resources) and/or to easy-running properties. PANOLIN ECL lubricants also reduce CO₂ emissions by enhancing machine operating efficiency.



Longer life of synthetic PANOLIN ECLs than comparable mineral oil products. Well documented by field tests (some of which over a 10 to 20-year time span).

Gear oil

PANOLIN EP GEAR SYNTH

Fully synthetic rapidly biodegradable heavy-duty gear oil for thrusters.



Production line control fluid

PANOLIN ATLANTIS 15

Synthetic biodegradable production line control fluid for offshore applications adjusted to the stringent OSPAR ecotox requirements/regulations for the marine environment (CEFAS, Klif, Miljøstyrelsen, SODM). Applications: Line control fluid (closed systems), Wellhead/SSSV, actuators, accumulators, tubing hangers, Xmas trees, subsea-completions.



Hydraulic fluids



PANOLIN HLP SYNTH 15, 22, 32, 46, 68

Fully synthetic zinc-free rapidly biodegradable hydraulic fluid. Enables much longer oil change intervals «lifetime filling». Applications: amongst others as hydraulic fluid for offshore and marine, steelwork and hydraulic structures.



PANOLIN ATLANTIS 22, N 32

Synthetic biodegradable hydraulic fluids for offshore applications adjusted to the stringent OSPAR ecotox requirements/regulations for the marine environment (CEFAS, Klif, SODM).

Applications: Deck cranes, launch and recovery systems, subsea ROV's, winches, deck ring mains.



PANOLIN MARHYD 32, 46

Fully synthetic high-performance hydraulic fluid of the latest generation, zinc-free and rapidly biodegradable. Applications: especially for hydraulic systems in port installations on boats and ships.

Stern tube lubricant



PANOLIN STELLA MARIS 68, 100, 150, 220, 320

Fully synthetic biodegradable stern tube lubricant. Superior lubricity and very polar, protects metal surfaces. No varnish due to thermo oxidation. Application: for stern tubes acc. to US EPA requirements for marine lubricants.

Compressor lubricant



COMPRESS SYNTH 46, 68, 100

Fully synthetic compressor lubricant. Applications: for reciprocating, screw and centrifugal compressors. Service life 4 to 6 times longer than mineral oils.

Lubricant for cables and sliding parts

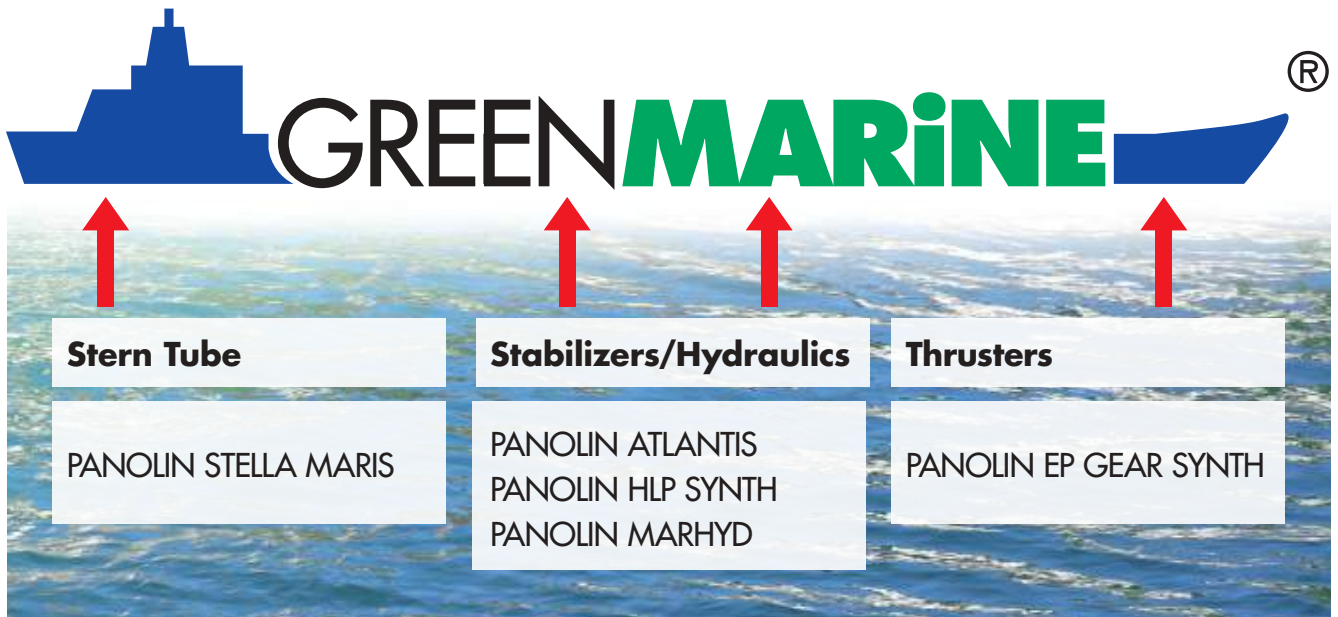


BIOTRACK E 320, 700

ECL for cables and other sliding parts (loss lubrication) based on renewable ester. Good emergency running properties even under thin-film conditions. Applications: cables, ropes and other sliding parts.

Applications





IACS (International Association of Classification Societies) – Labels



PANOLIN ATLANTIS, PANOLIN HLP SYNTH



PANOLIN ATLANTIS, PANOLIN HLP SYNTH

More PANOLIN labels – benchmarking environmental consideration



Next to «GREENMARINE» – «The Bio Flower», «CO₂ Reduction Footprint» and «GREENMACHINE» are registered trade marks of the PANOLIN Group.



PANOLIN is a Swiss family-owned company founded over sixty years ago, with headquarters in Madetswil/Zurich. The development, production and marketing of PANOLIN lubricants are certified to ISO 9001 and ISO 14001. All main product lines are ABS approved.

PANOLIN is the global leader in long-life environmentally considerate lubricants (ECL). PANOLIN ECLs are well proven worldwide for more than 30 years in machinery by the thousands, with optimal eco-economy under the toughest conditions. And over the last decade PANOLIN has also made its mark in marine engineering, with a special line of lubricants for demanding offshore applications.

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