

Magna newsletter

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Biolubri GreaseKote 100: Environmentally Acceptable Lubricant (EAL) Certified under SS 155470 Program

Certified an Environmentally Acceptable Lubricant (EAL) under the Swedish SS 155470 Labelling Program, Biolubri Greasekote 100 is a biodegradable, non-toxic grease that offers the ultimate protection against corrosion, rust and long-life lubrication under shipping conditions anywhere in the world. Developed for harsh marine environments, it provides an excellent alternative to mineral-based lubricants without comprising on performance and capabilities. It is suitable for applications where environmental parameters are a priority.

Meets OECD 201, 202 & 203 Tests

Characteristics

Biodegradable – For grease formulations with at least 75% (w/w) of constituent substances biodegraded by at least 60% within 28 days according to OECD 301B. 25% (w/w) of the formulation need not meet the above biodegradability requirement and may have constituent substances that are either inherently biodegradable or non-biodegradable, but may not be bio-accumulative.

Minimally-toxic – Formulation must pass OECD 201, 202, and 203 tests for acute toxicity testing. If a substance is evaluated for the formulation and main constituents, the LC50 of greases must be at least 1000mg/L. Non bio-accumulative – Each non-biodegradable component of the formulation is tested to confirm its non bio-accumulative properties.

Features & Benefits

- Meets stringent EAL requirements
- Meets environmental requirements of Swedish Standard SS 155470
- Vessel General Permit (VGP) Compliant
- RoHS Compliant: Meets European Union Restriction of Hazardous Substances Directive
- Biodegradable & Environmentally Friendly
- Contains no heavy metals or nitrites
- Cures almost immediately and maintains a grease-like texture
- Excellent hydrophobic properties
- Non-drying film
- Fortified with rust inhibitors
- Suitable for all climates

Meets U.S. VGP (Vessel General Permit) Requirements

Background on marine pollution, EAL & VGP

The issue of marine pollution has gained international scrutiny in the wake of rising emission levels with growth in sea freights and the commercial cruise market. Regulatory enforcement is expected to be stepped up to minimise ship source pollution in efforts to reduce pollution levels at ports and at sea.

A major source of ship source pollution is from the stern tube, a hollow tube in the hull of the ship which allows the propeller shaft to connect to the engine.

There are two types of stern tube lubrication: the oil-lubricated stern tube and seawater-lubricated open system. The oil-lubricated system encloses the propeller in approximately 1500L of oil in the stern tube, while the latter uses seawater as the lubrication medium in place of oil, pumping seawater through the stern tube before it is released. The oil-lubricated stern tube generates high levels of pollution from leakage through stern tube seals, leaking an estimated 80 million litres of oil into the ocean per year. Cumulative pollution at this rate compounds chemical toxicity, negative ecological changes and clean-up costs, prompting the US government to enforce regulations on commercial vessels in US waters.

US EPA 2013 Vessel General Permit (VGP) was enforced to better address oil pollution. VGP requirements make it mandatory for lubricants to meet stringent testing specifications for biodegradability, minimally-toxicity and bioaccumulation standards in order to be classified as Environmentally Acceptable Lubricants (EAL).

Under VGP regulations, vessels are required to use EAL if they fall into the following categories:

- Commercial vessels greater than 79 feet in length
- Vessels operating in a capacity as a means of transportation
- Vessels with discharges incidental to their operations
- Vessels which enter within three nautical miles of US coastlines and inland waters

In view of VGP regulations, vessel owners and ship maintenance businesses must ensure that lubricants used on vessels meet EAL requirements. EALs are formulated to ensure that their impact on the environment is significantly reduced when compared to that of traditional lubricants.



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