ExxonMobil

Mobil SHC Aware™ ST Series

ExxonMobil Marine , Italy

U.S. EPA 2013 Vessel General Permit Compliant Stern Tube Oil

Product Description

Mobil SHC Aware™ ST Series lubricants are high performance, emulsifying stern tube oils for marine stern tube systems that meet the U.S. Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for "environmentally acceptable lubricants". Mobil SHC Aware ST Series emulsifies readily with seawater to form a stable water-in-oil emulsion that is adhesive and an excellent lubricant. It provides effective rust protection in the presence of seawater and the lubricating film is resistant to water washing so that corrosion protection is maintained for extended periods under severe operating conditions.

Features and Benefits

- Meets US EPA 2013 Vessel General Permit requirements for environmentally acceptable lubricants
- Can safely run with up to 20% water content emulsion
- Excellent load carrying capability and corrosion protection
- Compatible with most typical mineral oils used for stern tubes
- Good elastomer compatibility, it works well with many of the same elastomers used with conventional mineral oils
- Mobil SHC Aware ST 220 can provide effective leak control when seal damage occurs

Applications

- Marine stern tube systems, fin stabilizers, and certain controllable pitch propeller systems where spills or leakage could result in adverse environment impact
- In systems where readily biodegradable and minimally toxic fluids may be required
- Marine and mobile equipment operating in environmentally sensitive areas
- Circulation systems operating under mild to moderate service conditions

Specifications and Approvals

This product meets or exceeds the following regulatory requirements:	100	220
US EPA VGP:2013	X	X

Properties and Specifications

Property	100	220
Grade	ISO 100	ISO 220
Acute Algae Toxicity, EC50/72h, mg/l, OECD 201	>1000	>1000
Acute Daphnia Toxicity, EC50/48h, mg/l, OECD 202	>1000	>1000
Acute Fish Toxicity, LC50/96h, mg/l, OECD 203	>1000	>1000
Bioaccumulation, Partition Coefficient, Log Pow, OECD 117	<3	<3

Property	100	220
Density @ 15 C, kg/l, ASTM D4052	0.922	0.932
FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1	10	11
Flash Point, Cleveland Open Cup, °C, ASTM D92	170	163
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	19.3	33.3
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	100	220
Pour Point, °C, ASTM D97	-24	-12
Rust Test, Sea Water, 24 h @ 60 C, ASTM D665-PROB	PASS	PASS
Shake-Flask Test, CO2 Evolution (Mod. Sturm), %, OECD 301B	>60	>60
Viscosity Index, ASTM D2270	180	200

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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04-2024
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