

## TECHNICAL DATA

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## 550M Marine EcoShield™ Biodegradable Grease NLGI #2

Marine EcoShield™ Biodegradable Grease NLGI #2 is a multi-purpose, extreme pressure, environmentally friendly, non-toxic, water resistant, readily biodegradable, bentone base grease that is formulated for use in the lubrication of those ball, roller, sliding and journal bearing applications found in marine equipment that is operated in environmentally sensitive areas.

Marine EcoShield™ Biodegradable Grease NLGI #2 meets the U.S. EPA's 2013 Vessel General Permit (VGP) specifications and requirements for Environmentally Acceptable Lubricants (EAL) for marine applications where the lubricant may come into contact or interface with fresh or sea water.

Marine EcoShield™ Biodegradable Grease NLGI #2 is compounded from a combination of renewable, high oleic plant base oils and biodegradable synthetic polyol ester base fluids, a bentone thickener and select additives. This formulation provides Marine EcoShield™ Biodegradable Grease NLGI #2 with the following performance features:

- Very good pumpability characteristics for use in centralized lubrication systems
- Very good resistance to water washout
- Excellent shear and mechanical stability
- Superior anti-wear and extreme pressure protection
- Very good load carrying capabilities
- Excellent rust and corrosion inhibiting characteristics
- Very good resistance to oxidation and oil separation
- Very good adhesive properties
- A very high dropping point

Marine EcoShield™ Biodegradable Grease NLGI #2 is recommended for use in the following applications:

- Marine vessel applications:
  - Rudder assemblies that are below the water line.
  - Any thrusters below the water line that are subject to the VGP.
  - Any other apparatus subject to the current VGP
  - Vessel deck or other grease applications
- Marine applications and dam applications for lubrication and protection on slide rails, metal cables, wire ropes, winches and chains

## **TYPICAL PROPERTIES**

NLGI Grade	2
Thickener Type	Bentone
Color	Tan
Worked Penetration 60 strokes (ASTM D217)	265 – 295
Dropping Point °F/°C ASTM D-566	None
Four Ball EP (ASTM D2596) Weld Point, kg	315
Four Ball Wear (ASTM D2266) Scar diameter, mm	0.55
Water Washout (ASTM D1264) % loss @ 175°F (79°C)	8.82%
Water Spray-Off (ASTM D4049)	17.2%
Biodegradability OCED 301-B	82%
Base Oil Viscosity @ 40°C, cSt (ASTM D445)	121.22