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## Marine Environmental Grease

Marine Environmental Grease is a multi-purpose, extreme pressure, environmentally friendly, water resistant grease that is formulated for use in marine off-shore drilling, wire rope and cable dressing applications where environmental considerations are critical and water resistance, corrosion resistance, wear and extreme pressure protection are required.

Marine Environmental Grease is formulated to minimize the impact on the aquatic environment that is associated with conventional greases. Marine Environmental Grease is non-toxic to aquatic life and exceeds the U.S. EPA LC 55 and OCED 203 test requirements for aquatic toxicity.

Marine Environmental Grease is compounded from 100% paraffin base oils, aluminum complex thickener, and select additives. This formulation provides Marine Environmental Grease with the following performance features:

- Very good pumpability characteristics for use in centralized lubrication systems
- Very good resistance to water washout and water spray-off
- Excellent shear and mechanical stability
- Superior anti-wear and extreme pressure 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 Environmental Grease contains synthesized molybdenum which provides the ability to act as a "back-stop" lubricant, when the grease base is either destroyed or wiped away due to unexpected loads, start-up or other conditions which exceed the capabilities of the grease base's fluid film lubrication. This "backstop" is created by the synthesized moly's natural affinity for metal surfaces which plates to the metal surface to form a long lasting solid lubricant film which will withstand pressures up to 500,000 pounds per square inch, giving the metal surfaces of the bearings the protection they need during periods of high speed, high shock loads and extreme pressure. This solid lubricant film also helps to reduce friction. This reduction in friction results in reduced wear and a reduction in contact area temperature. This in turn leads to increased bearing life, less downtime and extended lubrication cycles.

***Due to its superior cohesive and adhesive properties Marine Environmental Grease is not recommended for use in passenger car automotive wheel bearings or in electric motor bearing applications.***

## TYPICAL PROPERTIES

<b>NLGI Grade</b>	<b>1</b>	<b>2</b>
Thickener Type	Aluminum Complex	Aluminum Complex
Color	Blue	Blue
Worked Penetration 60 strokes (ASTM D217)	310-340	265 – 295
Roll Stability (ASTM D1831), % change/free water	3.09/0.5	3.09/0.5
Four Ball EP (ASTM D2596)		
Weld Point, kg	400	400
Load Wear Index	57.6	57.6
Four Ball Wear (ASTM D2266) Scar diameter, mm	0.44	0.44
Timken EP Test (ASTM D2509), OK Load, lb	65	65
Falex EP Continuous Load (ASTM D3233 Procedure A), lb	4325	4325
Water Washout (ASTM D1264) % loss @ 175°F (79°C)	5.18	5.18
Water Spray-Off (ASTM D4049)	28.9	28.9
Rust Inhibition Test (ASTM D1743)	1,1,1	1,1,1
Oxidation Stability (ASTM D942) psi loss @ 100 hours	1.5	1.5
Evaporation Loss (ASTM D2595) @121°C 22 hours	0.4	0.4
Copper Strip Corrosion Test (ASTM D4048)	1a	1a
Base Oil Viscosity @ 40°C, cSt (ASTM D445)	220	220