SINCE 1839 Schaeffer MANUFACTURING COMPANY

ISO 9001 CERTIFIED

TECHNICAL DATA

102 Barton Street, St. Louis, Missouri 63104
In-State (314) 865-4100/Out of State 800-325-9962/Fax (314) 865-4107 http://www.schaefferoil.com

572 MARINE ENVIRONMENTAL GREASE

Marine Environmental Grease is a multipurpose, extreme pressure, water resistant grease that is specially designed for marine environment, off-shore drilling and 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 the finest select severely solvent refined, severely hydrofinished 100% paraffin base oils available. Blended into these paraffin base oils are an aluminum complex base thickener, carefully selected extreme pressure, anti-wear and rust and oxidation inhibiting additives. This formulation provides the Marine Environmental Grease with the following performance characteristics:

1. Excellent pumpability characteristics for use in centralized lubrication systems
2. Very good to excellent low temperature pumpability
3. Excellent resistance to water washout and water spray-off
4. Excellent shear and mechanical stability
5. Excellent anti-wear and extreme pressure load carrying properties
6. Excellent reversibility. This property allows Marine Environmental Grease to retain its grease like consistency and remain in the bearing during periods of high heat, high shock loading, extreme pressure and severe mechanical action.
7. Excellent resistance to bleeding of the base oils
8. Excellent rust and oxidation inhibiting characteristics
9. Excellent resistance to oxidation
10. A high dropping point (260°C)
11. Excellent adhesive properties in order to provide Marine Environmental Grease with the ability to resist wash out, pound out, splatter or squeeze out during periods of high loads, vibration, shock loading, extreme pressure and severe mechanical action

Further blended into the Marine Environmental Grease is a synthesized moly and proprietary solid lubricant system. The synthesized moly and this proprietary solid lubricant system acts in synergism with each other plating themselves to the metal surfaces of the bearings. Once plated to the metal surfaces of the bearings, the synthesized moly and the proprietary solid lubricant system form a long lasting solid lubricant film that is capable of withstanding pressures up to 500,000 pounds per square inch, thus giving the metal surfaces of the bearings the protection they need during periods of high speed, high shock loads and extreme pressure.

The solid lubricant film that is formed by the synergism of the synthesized moly and the proprietary solid lubricant system also helps to reduce friction and acts as a “backstop” lubricant if the grease base is either destroyed or wipe away due to unexpected loads, start-up, or other conditions which exceed the capabilities of the grease base’s fluid film lubrication.

The reduction in friction and the ability to act as a “backstop” lubricant results in reduced wear and a reduction in contact area temperatures. This in turn leads to increased equipment life, less downtime and extended lubrication cycles.

Marine Environmental Grease has excellent rust and oxidation inhibiting characteristics, water resistance, shear and mechanical stability and good mechanical and pumpability properties. Marine Environmental Grease also has superior adhesive and cohesive properties. Because of these adhesive and cohesive properties Marine Environmental Grease will not wash out, pound out, splatter or squeeze out even under the heaviest loads or vibrations.

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.

OPERATING TEMPERATURE RANGE:

Marine Environmental Grease can be applied manually or by heavy-duty automatic lubrication at a temperature range of -23° to 177°C (-10° to 350°F).

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TYPICAL PROPERITIES

NLGI Grade	2
Type of Thickener	Aluminum Complex
Worked Penetration 60 Strokes ASTM D-217	265-295
Roll Stability (ASTM D-1831) % Change in consistency	12.36
Four Ball EP Test (ASTM D-2596) Weld Point, kg. Load Wear index, kg.	400 55.08
Four Ball Wear Test (ASTM D-2266) (40kg, 1200rpm. 1hr, 75°C) Scar diameter, mm/	0.7
Timken E.P. Test (ASTM D-2509) OK Load, lbs.	65
Falex EP Continuous Load (ASTM D-3233 Procedure A) Failure Load, lbs	4325
Oxidation Stability (ASTM D-942) Psi loss @ 100 hours	1.5
Rust Inhibition Test (ASTM D-1743)	1,1,1
Water Washout Characteristics (ASTM D-1264) % Loss @79°C	5.78%
Water Spray Off Test (ASTM D-4049) % Loss	15%
Evaporation Loss @ 121°C, 22hours (ASTM D-2595)	0.4 %
Copper Strip Corrosion Test (ASTM D-4048)	1A
Oil Separation (ASTM D-1742) % Wt. of oil separated	1%

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Typical Properties Continued

NLGI Grade	#2
Lincoln Ventmeter	
PSI @ 38°C/100°F	250
PSI @ -1°C/30°F	575
PSI @ -18°C/0°F	850
PSI @ -23°C/-9°F	1600
PSI @ -29°C/-20°F	Too stiff to pump
BASE Oil Properties	
Viscosity @ 40°C, cSt (ASTM D-445)	226.17
Viscosity @ 100°C, cSt (ASTM D-445)	18.89
Viscosity Index (ASTM D-2270)	95
Flash Point °C (°F) (ASTM D-92)	270° (518°)