



Shell Naturelle S2 Wire Rope Lubricant A

- US EPA VGP COMPLIANT

Special Purpose Biodegradable Synthetic Wire Rope and Open Gear Lubricant

Shell Naturelle S2 Wire Rope Lubricant A is a high performance fully biodegradable grease for use on open gears, wire ropes and cables. This product is formulated with renewable base fluids and contains a select blend of additives to offer corrosion resistance and high load carrying performance. Shell Naturelle S2 Wire Rope Lubricant A offers high resistance to water wash off due to its outstanding adhesion properties.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **VGP Compliant**
Shell Naturelle S2 Wire Rope Lubricant A is an Environmentally Acceptable Lubricant under the definitions of the USA EPA 2013 Vessel General Permit
- **Excellent resistance to wash off**
Excellent adhesion properties results in reduced lubricant consumption and reduced labour time for re-application
- **Extreme pressure and anti wear**
Select solid lubricants and additives protect components from excessive wear, even under heavy loads
- **Excellent Corrosion Protection**
Formulated to include special anti corrosion additives to offer the best possible protection from corrosion, even under the influence of seawater
- **Readily biodegradable**
Shell Naturelle S2 Wire Rope Lubricant A is biodegraded by over 60% after 28 days in the OECD 301 F bio degradation test

- **Low toxicity towards the environment**
Made from >60% renewable raw materials. Shell Naturelle S2 Wire Rope Lubricant A is also classed as minimally toxic and non-bioaccumulative
- **Operating Temperature Range**
Operation over the temperature range -20°C to 100°C
- **Dispensing**
Shell Naturelle S2 Wire Rope Lubricant A can be dispensed through standard lubrication equipment or by brush

Main Applications

- Wire ropes and cables, fair leads, crane and davit wires
 - Open gears, and low speed plain bearings (less than 500 rpm)
 - Rudder stocks, rudder trunk voids, propeller caps
 - Dredger bucket wheels
- Can be used in a variety of equipment that requires the lubricant to have good water resistance and load carrying ability

Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

Typical Physical Characteristics

Properties	Method	Shell Naturelle S2 Wire Rope Lubricant A
NLGI Consistency		1 - 2
Colour		Straw
Soap Type		Calcium
Base Oil Type		Renewable ester
Base Oil Kinematic Viscosity	@ 40°C cSt	IP 71 / ASTM D445 >550
Base Oil Kinematic Viscosity	@ 100°C cSt	IP 71 / ASTM D445 >80
Cone Penetration (Worked)	@ 25°C 0.1mm	IP 50 / ASTM D217 290

Properties		Method	Shell Naturelle S2 Wire Rope Lubricant A
Dropping Point	°C	IP 132 / ASTM D566 - 76	120
Water Resistance	3hr @ 90°C	DIN 51807	0 - No change

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

• Health and Safety

Shell Naturelle S2 Wire Rope Lubricant A is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on health and safety is available on the appropriate Material Safety Data Sheet (MSDS), which can be obtained from <http://epc.shell.com>

• Protect the Environment

When used in marine applications, ensure used fluids are disposed of in accordance with IMO MARPOL 73/78 Annex V (as amended) regulations to a Port waste reception facility. For non-marine applications, take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

• Additional Technical Advice

The information and guidance offered for use of Shell Naturelle products is based on experience and understanding gained through the development and manufacturing of lubricants. The performance of the products can be influenced by a number of variables, not limited to, contamination, operating temperature, equipment application, external environment and material type. It is recommended that you discuss application and fluid recommendations with both your OEM and local Shell technical representative before the product is used. Advice given is non binding and Shell will not be held liable for any consequence as a result of or through misuse of the fluid.

• Advice

Advice on applications not covered here may be obtained from your Shell Representative