



Technical Data Sheet

Formerly Known As: Shell Naturelle S4 Grease U68AP 1.5

Shell PANOLIN S4 Grease U68AP 1.5

Heavy Duty multi-purpose offshore and jacking system grease

- Heavy Duty Protection
- Calcium Sulfonate Complex
- Offshore Applications

High-Performance Biodegradable Lubricants

Performance, Features & Benefits

- **Enhanced load-carrying and wear protection properties**
Contains additives to handle shock loads and sustained heavy loads.
- **Excellent mechanical stability even in challenging conditions**
Consistency retained during extended operating periods, even when exposed to severe mechanical shear and vibration.
- **Effective in wet conditions**
Ensures lasting performance even in the presence of large amounts of sea water, and provides excellent corrosion resistance.
- **Multi-season use or flexible seasonal change-overs**
Suitable for warm weather use (all ambient temperatures down to -20°C (-4°F)).
- **Excellent corrosion protection in salt water**

• Lower Environmental Impact

Recommended for use in environmentally sensitive areas - offers reduced impact of leak or accidental spillage into the environment compared to conventional mineral oils. Readily biodegradable - biodegraded by over 60% after 28 days in the OECD 301 B carbon dioxide evolution test. Low Ecotoxicity - classified as 'not harmful' to bacteria, algae, freshwater and marine invertebrates, and fish when tested as water-accommodated fractions (WAFs) according to OECD and EPA test guidelines.

Main Applications



Specifications, Approvals & Recommendations

- OSPAR 'Yellow' Rating
For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Typical Physical Characteristics

Properties			Method	Shell PANOLIN S4 Grease U68AP 1.5
NLGI Consistency				1.5
Colour				Beige
Thickener type				CaS Complex
Base Oil (type)				Semi-synthetic
Kinematic Viscosity	@40°C	cSt	IP 71 / ASTM D445	68
Cone Penetration, Worked	@25°C	0.1mm	IP 50 / ASTM D217	275 - 300
Dropping Point		°C (°F) minimum	ASTM D2265	260
4 Ball Weld Load		kg	ASTM D2596	800
Water Washout	@79°C	% maximum	ASTM D1264	5

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**

This product 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 Safety Data Sheet, which can be obtained from <https://www.epc.shell.com>

- **Protect the Environment**

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

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

- **Additional Technical Advice**

The information and guidance offered for use of Shell PANOLIN 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.

- Recommended operating temperature range -20°C (-4°F) °C to +150°C (300°F)