



Formerly Known As: Neptune ® Gear N229

Shell Omala S3 W 220

- Polyalkylene glycol (PAG) based
- Non-Sheening

100% Water Soluble Gear Fluids

Shell Omala S3 W Gear lubricants are fully formulated, high performance gear lubricants for enclosed industrial gears including worm gears. Shell Omala S3 W Gear lubricants are formulated to provide excellent lubrication, stability and extended service life. These gear lubricants are designed for demanding industrial applications, with a special emphasis on applications where spills into the water require an environmentally appropriate lubricant.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Reduced Wear Rates**

Shell Omala S3 W Gear lubricants have exceptional load carrying anti-wear performance over a wide range of temperatures. They are rated as "anti-wear" (AW) fluids according to ASTM D7043 and FZG testing.

- **Non-Sheening**

Shell Omala S3 W Gear lubricants do not cause a sheen and are in compliance with the US Clean Water Act Sheen Rule.

- **Water Solubility**

Shell Omala S3 W Gear lubricants are heavier than water and do not cause bioaccumulation.

- **Hydrolytic Stability**

Shell Omala S3 W Gear lubricants will not hydrolyze in the presence of water. This protects hydraulic systems from decreased equipment life and potential system failure due to the presence of harmful acids (increased Total Acid Number values).

- **All Weather Service**

With high viscosity indices and low pour points, Shell Omala S3 W Gear lubricants may be used year-round, eliminating season changeovers. One Shell Omala S3 W gear lubricant may replace multiple viscosity grade oils.

- **Material Compatibility**

Shell Omala S3 W Gear lubricants are typically not soluble with petroleum-based oils. The fluids are compatible with seals and hoses commonly found in gear systems. Contact Shell for more detailed compatibility information related to paints, plastics, and elastomers.

- **Seal Compatibility**

Shell Omala S3 W Gear lubricants are compatible with many common and high-performance elastomers. Contact your local Shell distributor for additional information.

- **Biodegradability and Aquatic Toxicity**

Shell Omala S3 W Gear lubricants are classified as "practically non-toxic" to fish following OECD test method 203. The products will not bioaccumulate in organisms in the environment.

Main Applications



- Shell Omala S3 W fluids are ideal for use in applications such as dockside and marine mobile equipment, forestry, coal handling, amusement, cooling towers, wind turbines and industrial operations.

Specifications, Approvals & Recommendations

- VGP 2013
 - Shell Omala S3 W 220 meets the United States Environmental Protection Agency's 2013 Vessel General Permit requirements to use in marine applications. When compared to mineral oils they will have reduced environmental impact in the event of a leak or accidental spillage.
- For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Typical Physical Characteristics

| Properties | | | Method | Shell Omala S3 W 220 |
|---------------------|--------|--------------------|-------------|----------------------|
| ISO Viscosity Grade | | | | 220 |
| Kinematic Viscosity | @40°C | mm ² /s | ASTM D445 | 228 |
| Kinematic Viscosity | @100°C | mm ² /s | ASTM D445 | 45.6 |
| Viscosity Index | | | ISO 2909 | 257 |
| Density | @15°C | kg/m ³ | ASTM D4052 | 1 041 |
| Flash Point | | °C | ASTM D92 | 225 |
| Fire Point (COC) | | °C | ASTM D92 | 265 |
| Pour Point | | °C | ASTM D97 | -39 |
| FZG (A/8,3/90) | | Fail Stage | ISO 14635-1 | 12 |

These characteristics are typical of current production, variations in these characteristics in future production may occur.

Health, Safety & Environment

• Health and Safety

Shell Omala S3 W 220 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 on applications not covered here may be obtained from your Shell Representative.