

UNIRICHLUBE WGL307

High-Performance Additive Package for PAG Industrial Gear Oils

Engineered for thermal stability, load-carrying protection and long-life PAG gear-oil formulations.

PRODUCT OVERVIEW

UNIRICHLUBE WGL307 is a multifunctional additive package developed for formulating high-performance polyalkylene glycol (PAG) industrial gear oils and worm-gear lubricants. It combines high-temperature oxidation control, ashless extreme-pressure and anti-wear performance, corrosion inhibition, metal deactivation and foam control in a liquid concentrate.

The product is formulated without active sulfur and is designed to support non-corrosive performance on bronze and silver-containing components. Finished-fluid performance depends on the selected PAG base oil, treat rate, blending practice and validation testing.

KEY BENEFITS

- Ashless EP and anti-wear system for demanding industrial gear contacts.
- High-temperature oxidation control to help limit deposits and viscosity change.
- Non-active-sulfur chemistry designed for bronze and silver compatibility.
- Low-friction PAG gear-oil performance to help reduce operating temperature and support seal life.
- Corrosion protection, metal deactivation and foam-control performance for stable operation.

RECOMMENDED TREAT RATE

Typical starting treat rate: 2.0–3.0% by mass in PAG industrial gear-oil formulations. The optimum dosage shall be confirmed through finished-fluid testing against the applicable specification and equipment requirements.

TYPICAL PHYSICAL PROPERTIES

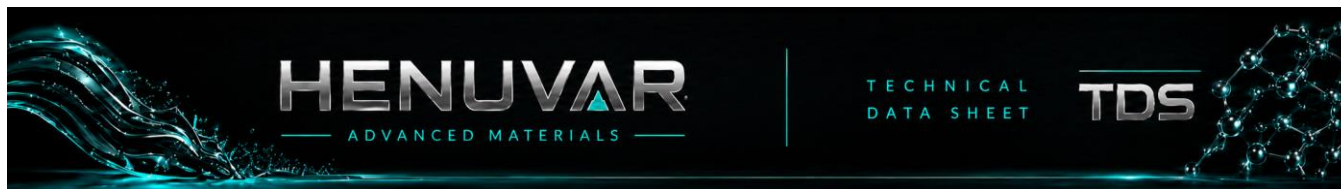
The following values are typical and do not constitute a product specification or warranty.

Property	Test Method	Typical Value
Appearance	Visual	Clear brown liquid
Density at 20 °C, kg/L	ASTM D1298	1.025
Kinematic viscosity at 40 °C, mm ² /s	ASTM D445	300
Flash point, °C	ASTM D92	> 150
Acid number, mg KOH/g	ASTM D664	≤ 1.0
Ash, %	ASTM D482	≤ 0.01
Water content, ppm	ASTM D6304	≤ 300

ILLUSTRATIVE FORMULATION PERFORMANCE

Test fluid: HENUVAROX B20-320 PAG base oil with UNIRICHLUBE WGL307. Results are illustrative formulation data, not finished-product specifications.

Property	Test Method	Base Oil	+ 2.0% WGL307	+ 3.0% WGL307
Four-ball EP	ASTM D2783			
Load wear index P _B , N		1048	1117	1254
Weld load P _D , N		1568	1960	2450



Four-ball wear scar (60 min, 196 N, 54 °C, 1800 rpm), mm	ASTM D4172	0.60	0.35	0.32
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FORMULATION GUIDANCE

- Use dry, clean blending equipment and control water contamination throughout production.
- Confirm compatibility with the selected PAG base oil, seals, paints, viscosity modifier and other additives before commercial manufacture.
- Validate the finished lubricant for viscosity, oxidation stability, load-carrying capacity, corrosion protection, foam control and OEM-specific requirements.

PACKAGING

- 180 KG steel drum
- Custom OEM packaging available

STORAGE AND HANDLING

Store in tightly closed original containers indoors and protect from moisture, direct sunlight and contamination. Where outdoor storage is unavoidable, keep containers protected from rain and standing water. Storage temperatures should not exceed 60 °C; avoid prolonged exposure to severe cold or large temperature swings. Follow first-in, first-out inventory practice and inspect packaging integrity before use.

QUALITY AND MANAGEMENT SYSTEMS

Manufactured within management systems certified to ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018.

Disclaimer

The information in this document is based on technical data, test results and application experience available at the date of issue. It is provided for general guidance only and does not constitute a warranty, performance commitment or contractual term. Because conditions of formulation, manufacture, storage and use are outside HENUVAR New Materials (Tianjin) Co., Ltd.'s control, users are responsible for determining suitability for their intended application and for complying with applicable laws, regulations and equipment-manufacturer requirements.

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