

UNIRICHLUBE RS3030

Ashless High-Temperature Additive Package for Circulating and Compressor Oils

Engineered for long-life, non-EP industrial lubricants requiring oxidation stability, metal protection and water separation.

PRODUCT OVERVIEW

UNIRICHLUBE RS3030 is a high-performance ashless additive package formulated with high-temperature antioxidants, rust inhibitors, metal deactivators, antifoam agents and demulsifiers. It is designed for use in non-extreme-pressure circulating oils, air-compressor oils and turbine-oil formulations where long service life, thermal stability and reliable water separation are required.

The package is compatible with mineral, synthetic-hydrocarbon and ester base-oil systems. Finished-lubricant performance depends on base-oil selection, additive treat rate, blending practice and finished-fluid validation.

KEY BENEFITS

- High-temperature oxidation inhibition and thermal-oxidation stability for demanding service conditions.
- Metal-surface protection through corrosion inhibition, rust prevention and metal deactivation.
- Ashless chemistry suitable for non-EP circulating, compressor and turbine-oil formulations.
- Antifoam and demulsification performance to support clean, stable lubricant systems.
- Low treat-rate multifunctional package designed to streamline formulation development.

TYPICAL APPLICATION TARGETS

- Rotary-screw compressor oils: ISO 6743-3 DAG / DAJ, subject to finished-fluid validation.
- Reciprocating air-compressor oils: DIN 51506 VDL, subject to finished-fluid validation.
- Non-EP turbine and circulating oils: DIN 51515-1 L-TD, DIN 51515-2 L-TG and DIN 51524-1 HL, as applicable to the finished formulation.

RECOMMENDED TREAT RATE

Application	Typical Service Target	Recommended Treat Rate
Ashless rotary-screw compressor oil	4,000–6,000 operating hours	0.5–0.8%
Ashless rotary-screw compressor oil	8,000–10,000 operating hours	1.0–1.2%
Non-EP turbine oil	—	0.4–0.5%
High-temperature circulating oil	—	0.5%

TYPICAL 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	0.92
Kinematic viscosity at 40 °C, mm ² /s	ASTM D445	140
Flash point, °C	ASTM D92	> 200

Acid number, mg KOH/g	ASTM D664	≤ 1.0
Ash, %	ASTM D874	≤ 0.1

ILLUSTRATIVE FORMULATION PERFORMANCE

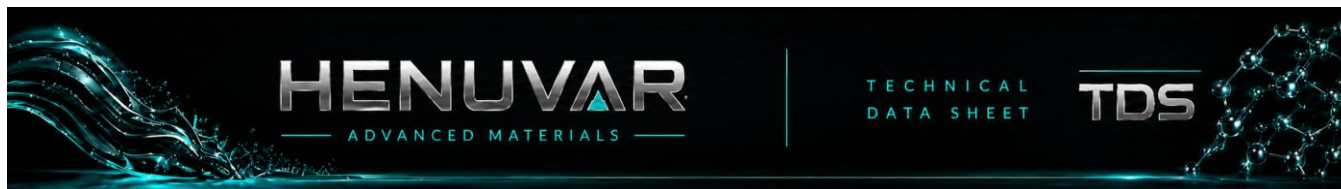
Test fluid: Group III base oil, ISO VG 32, formulated with UNIRICHLUBE RS3030. Results are illustrative formulation data, not finished-product specifications.

Property	Test Method	0.50% RS3030	0.80% RS3030
Viscosity index	ASTM D2270	111	111
Pour point, °C	ASTM D97	-18	-18
Flash point, °C	ASTM D92	242	244
Acid number, mg KOH/g	ASTM D974	≤ 0.01	≤ 0.01
Aromatics, %	ASTM D5580	0.01	0.01
Air release at 50 °C, min	ASTM D3427	1	1
Foam tendency/stability, mL/mL	ASTM D892		
Sequence I, 24 °C		5/0	5/0
Sequence II, 93.5 °C		10/0	10/0
Sequence III, after 24 °C		0/0	0/0
Demulsibility at 54 °C			
Oil/water/emulsion, mL	ASTM D1401	40/40/0	40/40/0
Separation time, min		5	5

OXIDATION STABILITY AND METAL PROTECTION

Test fluid: Group III base oil, ISO VG 32, with 0.50% UNIRICHLUBE RS3030 and 0.03% secondary antioxidant.

Test / Condition	Test Method	Typical Result
TOST, time to acid number 2.0 mg KOH/g 95 °C, water, iron and copper catalysts, h	ASTM D943	> 10,000
Sludge deposit 1,000 h / 3,000 h at 95 °C, water, iron and copper catalysts, mg	ASTM D4310	5.8 / 17.0
Modified RPVOT 150 °C, 0.62 MPa (90 psi) oxygen, water and copper catalyst	ASTM D2272	> 1,500
Cincinnati Milacron test -Procedure A: 168h at 135°C -TAN oil change (mg KOH/g) -Viscosity change (%) -Sludge (mg/100ml) -Copper attack (rating) -Steel attack(rating)	—	0.08 -0.06 1.8 1.0 1.0
Rust protection Procedure A distilled water Procedure B synthetic seawater	ASTM D665	Pass Pass
Copper corrosion, 100 °C, 3 h	ASTM D130	1A



FORMULATION GUIDANCE

- Use dry, clean blending equipment and control water contamination throughout production.
- Confirm compatibility with the selected base oil, seals, paints, viscosity modifiers and other additives before commercial manufacture.
- Validate the finished lubricant for oxidation stability, air release, foam, demulsibility, corrosion protection and application-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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