COMPRESYN®
SYNTHETIC▪FOOD-GRADE

COMPRESYN® 250 SERIES

Food-Grade Semi-Synthetic Compressor/Vacuum Pump Oils

Application

COMPRESYN® 250 Series oils are semi-synthetic, patent-pending lubricants for use in a variety of compressor and vacuum pump equipment and critical applications. Performance features include: low fluid volatility, enhanced water demulsibility and hydrolytic stability, improved sealing effect, reduction in friction and enhanced wear protection, and outstanding fluid dispersancy to eliminate "sludging" and deposit-forming tendencies.

COMPRESYN® 250 Series oils are fully compliant with 21 CFR 178.3570 and meet the requirements of USDA/NSF H1 (Lubricants with Incidental Food Contact).

Performance

COMPRESYN® 250 Series oils are compounded with a blend of next-generation food-grade synthetic base oils, white oils and a robust additive package to provide superior performance over competitive lubricating oils. Our patent-pending formulations, based on extensive research, development and field trial experience have provided COMPRESYN® 250 Series fluids with an optimized combination of antiwear agents, rust inhibitors, and antioxidants that demonstrate a synergistic performance advantage over traditional oils.

The optimized blend of white mineral oil and synthetic alkylated naphthalene provides a cost benefit over the full synthetic version in applications where excessive contaminant ingress or filtration deficiencies are limiting factors in drain intervals and useful life.

Base Fluid Advantages

The food-grade alkylated synthetic base fluid utilized in COMPRESYN® 250 Series provides several benefits over conventional synthetic base fluids such as polyalphaolefins (PAOs) and esters. While PAOs handle heat and oxidation, they are essentially synthesized paraffinic oils in performance and are subject to abrasive carbonization and depositing in equipment components. Additionally, they provide no dispersancy or solvency to the lubricant to prevent agglomeration (depositing) of ingested materials.

Esters, while possessing solvency and dispersancy characteristics which are beneficial in the application, suffer from hydrolytic instabilities. Water entrained in the lubricant can cause the ester to hydrolyze, breaking the ester down into component products such as acids and alcohols which can varnish components and lead to premature failure.

The synthetic alkylated naphthalenes used in COMPRESYN® 250 Series provide solvency and dispersancy similar to esters but do not suffer from hydrolytic instability.

Wear Protection

COMPRESYN® 250 Series fluids have been specifically formulated to provide enhanced wear protection. Studies have shown that the additive chemistry in the COMPRESYN® 250 Series fluids significantly reduces wear over conventional vacuum pump oils, dramatically increasing component life.

Thermal and Oxidative Stability

COMPRESYN® 250 Series outperforms many synthetic and conventional fluids in thermal and oxidative stability, as demonstrated by the Rotary Pressure Vessel Oxidation Test (ASTM D 2272). The synthetic alkylated naphthalene base fluid component and additive chemistry enhance performance and translate into longer drain intervals, greatly increased varnishing resistance and trouble-free operation.

Water Separation and Air Entrainment

COMPRESYN® 250 Series readily separates from water and air, eliminating emulsions that inhibit the oil's ability to lubricate, decreasing the potential for forming deposits, and improving efficiency. Rapid water separation ensures easy drainage from the sump, reducing the potential for rust and corrosion of the system components.

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Technical Data — COMPRESYN® 250 SERIES

Property	ISO 46	ISO 100	Method
Viscosity at 40°C, cSt	45.19	100.4	ASTM D 445
Viscosity at 100°C, cSt	6.89	11.5	ASTM D 445
Viscosity Index	108	101	ASTM D 2270
4-Ball Wear, mm	0.46	0.48	ASTM D 4172
RPVOT, minutes	1675	1750	ASTM D 2272
Flash Point, °F (°C)	455 (235)	514 (268)	ASTM D 92
Fire Point, °F (°C)	482 (250)	583 (306)	ASTM D 92
Pour Point, °F (°C)	-7.6 (-22)	-4 (-20)	ASTM D 97
Specific Gravity	0.8640	0.8724	ASTM D 1298
Density, lbs/gallon	7.194	7.264	ASTM D 1298
NSF Reg. No./Category Code	145466/H1	145467/H1	

Performance Features:

- **Outstanding Antiwear Protection for Pump Protection**
- **Resists the Formation of Foam, Sludge, Varnish and Corrosive Acids**
- **Superior Rust and Oxidation Stability for Long, Trouble-Free Life**
- **Hydrolytically Stable and Readily Separates from Water**
- **Superior Dispersancy for Extending Drain Intervals**

Meets Performance Requirements:

- **USDA/NSF H1 Compliant**
- **Kosher and Parve Certified**
- **Compliant with FDA 21 CFR 178.3570 — "Lubricants with Incidental Food Contact"**

Micronox® Technology

COMPRESYN® 250 Series fluids contain the performance benefits of Micronox® Technology that provides antimicrobial protection to the lubricant. A first in food-grade lubricants, Micronox® has proven effective in protecting the lubricant against microbial contamination over extended lubrication intervals and is NSF-registered HX1 (Ingredients for use in H1 Lubricants).

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