



Syncon® Barrier Oil

Phillips 66® Syncon® Barrier Oil is a premium quality, non-reactive, synthetic, low-viscosity process oil developed for use as a barrier oil in seal applications where the manufacturer calls for a light mineral seal oil. Typical applications include seal service in refineries, gas plants, steel mills, power plants and chemical plants.

Syncon Barrier Oil is manufactured with synthetic polyalphaolefin (PAO) base oils and select additives to provide excellent oxidation inhibition and lubricity over a wide temperature range. It is free of impurities that can cause catalyst poisoning in process applications, and is compatible with most commonly used seal materials.⁽¹⁾ It complies with FDA 21 CFR 178.3570 regulations for use in food processing plants where there is the possibility of incidental food contact.

Applications

- Seal applications in gas processing and pumping
- Barrier fluid in dual mechanical seals used in refineries, power plants, and chemical plants, where the manufacturer calls for a premium quality light mineral seal oil

Features/Benefits

- Premium quality seal oil
- Outstanding oxidation resistance and thermal stability at high temperatures
- Superior heat transfer properties
- Excellent low-temperature fluidity
- Resistant to chemical contamination
- Helps keep the face of the seal cool and free of deposits
- Low odor

⁽¹⁾ **Note:** For information on compatibility with elastomers, paints, and plastics, please call our Technical Support Hotline.

Synthetic PAO-Based Fluid for Seal Service





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Typical Properties	
ISO Grade	5
Specific Gravity @ 60°F	0.797
Density, lbs/gal @ 60°F	6.64
Color, ASTM D1500	0.5
Flash Point (COC), °C (°F)	149 (300)
Pour Point, °C (°F)	-60 (-76)
Viscosity	
cSt @ 40°C	5.10
cSt @ 100°C	1.70
SUS @ 100°F	43.7
SUS @ 210°F	31.9
Viscosity Index	N/A
Acid Number, ASTM D974, mg KOH/g	0.17
Copper Corrosion, ASTM D130, 48 hrs @ 80°C	1a
Demulsibility, ASTM D1401, minutes to pass	10
Foam Test, ASTM D892, Seq. I, mL	0/0
Four-Ball Wear Test, ASTM D4172, Scar Diameter, mm	0.55
Oxidation Stability, RPVOT, ASTM D2272, minutes	2,400
Rust Test, ASTM D665 A&B	Pass

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/EN/products/Pages/MSDS.aspx>.

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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