

BARRIER FLUID FDA®

Buffer / Barrier Fluid for Mechanical Seals



Beyond Synthetic™

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Barrier Fluid FDA® is a pure, non-reactive, synthetic fluid that provides superior lubrication and cooling for double and tandem mechanical seals.

Barrier Fluid FDA® provides very stable seal performance over an extremely wide temperature range, satisfying most seal service requirements. Barrier Fluid FDA® is extremely clean and has excellent low temperature fluidity and heat transfer properties.

Barrier Fluid FDA® is sanctioned under the FDA CFR Title 21 Sections 178.3620(a)(b); 172.878; 175.105; 172.200 and 210; 177.2260, 2600 and 2800; 178.3570 and 3910. It is approved by the USDA for both H-1 and H-2 service. Barrier Fluid FDA® is essentially inert, allowing it to be used with most hydrocarbon gases and aqueous acids and bases.

Performance Advantages:

• Environmentally Safe

Royal Purple® Barrier Fluids are not listed on the EPA's VHAP (volatile hazardous air pollutants) or VOC (volatile organic compounds) lists.

• Sanctioned by the EPA, USDA

Barrier Fluid FDA® is the first synthetic white oil sanctioned under the FDA's CFR Title 21 Sections 178.3620(a) & (b); 172.878; 175.105; 176.200. It is also sanctioned under 210; 177.2260 and 2800; and 178.3570 and 3910. It is also approved by USDA for both H-1 and H-2 service.

• Minimal Disposal Problems

Royal Purple® Barrier Fluids can be recycled, burned or disposed the same as mineral oil.

• Very Low Moisture Content

Royal Purple® Barrier fluids have a low moisture content to prevent seal problems or catalyst poisoning where applicable.

• Highest Purity

Barrier Fluid FDA® contains no impurities such as sulfur, vanadium, amines, etc., that can be harmful or reactive to process fluids or poison the catalyst if it enters a process stream.

• Extremely Clean

Barrier Fluid FDA® has a typical ISO Cleanliness Grade 14/13/11, minimizing abrasive wear to seal faces and extending seal life.

• Excellent Heat Transfer Properties

Royal Purple® Barrier Fluids are 25 to 30 percent better than mineral oil to keep seals cool.

• Excellent Low Temperature Fluidity

Royal Purple® Barrier Fluids have excellent low temperature fluidity for cryogenic and cold weather service.

• Uniform Molecular Size

The no light ends, plus excellent thermal stability of Royal Purple® Barrier Fluids provide maximum protection against blistering of carbon seal faces caused by fluid volatility.

• High Flash Point

Royal Purple® Barrier Fluids have a high flash point for maximum safety.

• Compatible with Most Fluids

Royal Purple® Barrier Fluids can be mixed with mineral oils, PAOs and diester fluids but should not be mixed with glycol or silicone synthetics.

• Wide Seal Compatibility Range

Royal Purple® Barrier Fluids are compatible with Viton®, neoprene, Buna N (except high ACN), silicone, polyurethane ester, epichlorohydrin, polysulfide, ethylene / acrylic, polycrylate, fluoroelastomer, propylene oxide, chlorosulfonated polyethylene, chlorinated polyethylene, Kalrez®, Nordel®, fluoroelastomer, nitrile and others. It is not for use with EPDM or EPR elastomers. Viton®, Kalrez® and Nordel® are registered trademarks of E.I. DuPont.

Typical Properties *	Barrier Fluid Grade				
	22**	34	56	78	910
Vapor Pressure mmHG @ 100°F	0.0060	0.0001	0.0005	0.0003	0.0001
Pour Point °F	-65	-85	-75	-58	-50
Flash Point °F	335	445	462	482	505
Fire Point °F	350	485	510	542	555
Boiling Point °F	538	655	718	760	755
Autoignition °F	>420	>600	>600	>600	>600
Specific Gravity	0.799	0.816	0.824	0.833	0.838

*Properties are typical and may vary

** Barrier Fluid 22 is 80 percent biodegradable within 28 days per industry standard CEC L33-A-94.