



BARRIER FLUID FDA[®]

BUFFER / BARRIER FLUID FOR MECHANICAL SEALS

BEYOND SYNTHETIC™

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.

Barrier Fluid FDA is NSF certified for H1 service. Barrier Fluid FDA is essentially inert, allowing it to be used with most hydrocarbon gases and aqueous acids and bases.

Barrier Fluid FDA is an undyed product.

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, NSF**
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. Barrier Fluid FDA is NSF certified for H1 service.
- **Minimal Disposal Problems**
Royal Purple Barrier Fluids can be recycled, burned or disposed of 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.

PERFORMANCE ADVANTAGES, CONTINUED

- **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.



BARRIER FLUID FDA[®]

BUFFER / BARRIER FLUID FOR MECHANICAL SEALS

TYPICAL PROPERTIES*	ASTM METHOD	BARRIER FLUID GRADE				
		22*	34***	56***	78***	910
Viscosity	D-445					
cSt @ 40°C		5.2	17.4	30.6	46.7	65.5
cSt @ 100°C		1.75	3.9	5.8	7.8	9.9
Viscosity Index	D-2270	---	123	135	136	135
Flash Point, °F	D-92	330	445	465	505	530
Pour Point, °F	D-6892	-70	-85	-39	-31	-65
Initial Boiling Point, °F	D-7500	567	637	720	847	810
Autoignition, °F	E-659	428	689	744	750	779
ISO Cleanliness Level	ISO 4406	14/13/11	14/13/11	****	****	14/13/11
Density, lbs/g	D-4052	7.45	7.45	7.50	7.47	7.56

*Properties are typical and may vary

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

***NSF certified for H1 service

****Check with manufacturer regarding availability with 14/13/11 cleanliness