RADCO INDUSTRIES, INC.

TECHNICAL DATA SHEET FOR RADCOLUBE® FR457 FIRE RESISTANT HYDRAULIC FLUID

MIL-H-19457D(SH)

CHARACTERISTICS	REQUIREMENT	TYPICAL RESULTS	TEST METHOD
Kinematic Viscosity, Centistokes			ASTM D445
at 100°C	4.8 cSt, min.	5.0	
at 40°C	38.5 - 45.5 cSt	42.3	
Fire point	Report	320°C	ASTM D92
Flash point	Report	280°C	ASTM D92
Pour Point	-18 °C, max.	-18	ASTM D97
Acid Number	0.1 mg•KOH/g	0.02	ASTM D644
Evaporation Loss at 100°C	0.30% max.	0.09%	ASTM D972
Neutrality	Neutral	Conforms	FED-STD-791 Method 5101
Water Content	% none	None	ASTM D95
Color of finished fluid	9 ppm Sudan Blue II Dye or equivalent	Conforms	MIL-H-19457D Section 6.2
Corrosion			MIL-H-19457D Section 4.5.3
Aluminum	Report	-0.017	
Brass	Report	-0.006	
Steel	Report	0.0	
Zinc	Report	-0.006	
Appearance	No visible corrosion	No visible corrosion	
Hydrolytic Stability			MIL-H-19457D Section 4.5.2
Copper speciman, weight loss	0.3 mg/cm2, max.	-0.125	
Appearance	No corrosion	Shiny, 1B	
Acid Number increase of fluid	0.2 mg•KOH/g	0.09	
Acidity of water layer	5 mg•KOH/g	4.03	
Insolubles	0.5%, max.	0.004%	
Foaming Tendency at 24°C	65 mL, max.	10	ASTM D892
Foam stability	Collapse	Collapse	
Refractive Index at 40°C	Report	1.5509	ASTM D1218
Emulsion Test at 54°C	30 min., max.	5	ASTM D1401
Specific gravity at 15.6°C	Report	1.154	ASTM D287
Wear test scar diameter	0.6 mm, max.	0.57	ASTM D2266
Precipitation	0.01, max.	0.00	ASTM D91
Compatability with Packings			MIL-H-19457D Section 4.5.4
EPDM Type 1:	±5% of Referee	0.19%	
EPDM Type 2:	±5% of Referee	-0.73%	
EPDM Type 3:	±5% of Referee	-1.37%	
Triorthocresyl phosphate (TOCP)	Report	< 0.01%	MIL-H-19457D Appendix