



Product Data

Castrol Brayco Micronic 783

Hydraulic Fluid, Petroleum Base for
Preservation and Operation

Description

Castrol Brayco™ Micronic 783 is a petroleum-based, low viscosity, ISO grade 15 red colored hydraulic and preservative fluid for aircraft and ordnance use. It is a blend of selected petroleum oils with additives which provide exceptionally good viscosity-temperature characteristics, good anti-wear properties, controlled rubber swell, good shear stability and excellent oxidation resistance. Brayco Micronic 783 is an excellent corrosion preventative and provides a high degree of detergency to maintain clean systems.

Applications

Brayco Micronic 783 is designed for aircraft, ordnance and other general hydraulic use, and for preserving hydraulic components over a temperature range of -54°C to 135°C (-65°F to 275°F). It may be used as an operational preservative fluid for all tactical and support ordnance intended for use in MIL-PRF-5606 service. Brayco Micronic 783 can be used in hydraulic systems of missile ground support equipment and is particularly suitable for use in systems with long periods of inactivity during service.

Material Compatibilities

Brayco Micronic 783 is generally used with standard synthetic rubber "L". This petroleum base fluid may be used with conventional oil and grease resistant paints. Brayco Micronic 783 as all other MIL-PRF-6083 fluids should only be mixed with MIL-PRF-5606, MIL-PRF-46170 and MIL-PRF-83282 fluids.

Specifications

Brayco Micronic 783 meets the requirements of and is qualified to MIL-PRF-6083F. It also meets the requirements for a P-15 preservative under packaging specification MIL-P-116. This fluid is identified by Military Symbol: OHT and NATO Code Number: C-635.

Typical Characteristics

Test	Method	Units	Specification Requirements	Result
API Gravity	ASTM D287	degrees		29.5
Specific Gravity @16°C/60°F	Table 3		0.8650 - 0.8820	0.88
Density @16°C/60°F	Table 8	Lbs/gal		7.32
Kinematic Viscosity @40°C/104°F @100°C/212°F @-40°C/-40°F @-54°C/-65°F	ASTM D445	cSt	13 Minimum 800 Maximum 3500 Maximum	13.6 4.7 650 3450
Pour Point	ASTM D97	°C/°F	-59/-75 Maximum	-65/85
Flash Point, PMCC	ASTM D93	°C/°F	82/180 Minimum	100/212
Acid or Base Number	ASTM D664	mg KOH/gm	0.20 Maximum	0.08
Trace Sediment	ASTM D2273	mL	0.005 Maximum	0.001
Water by KFR	ASTM D1744	%	0.05 Maximum	0.01
Color, as Per Standard	Spec 4.5.1	Pass/Fail	Pass	Pass
Corrosion-Oxidation Stability, 168 hrs @ 121°C/250°F Weight Change Copper Steel Aluminum Magnesium Cadmium Corrosion, Pitting, or Etching Separation or Gummying Change in Viscosity @40°C/104°F Increase in Acid Number	ASTM D4636	mg/cm2 mg/cm2 mg/cm2 mg/cm2 mg/cm2 Report Report % Report	0.6 Maximum 0.2 Maximum 0.2 Maximum 0.2 Maximum 0.2 Maximum None None -5 to +20 0.20 Maximum	-0.01 -0.01 +0.01 +0.01 +0.02 None None 3.5 0.12
Copper Strip, 72 hrs @100°C/212°F	ASTM D130	Report	Less than 3a	1b
Corrosion Inhibition, 100 hrs @49°C/120°F Polished Panels Sandblasted Panels	ASTM D1748	Pass/Fail Pass/Fail	Pass Pass	Pass Pass
Low Temperature Stability 72 hours @-54°C/-65°F	Spec 4.5.7	Pass/Fail	No gelling, crystallization, or separation	Pass
Rubber Swell, 168 hours @70°C/158°F	Spec 4.5.5	%	19 – 28	24
Evaporation Loss, 22 hours @100°C/212°F	ASTM D972	% wt	75 Maximum	43
Corrosivity, 10 Days	Appendix A	Pass/Fail	No corrosion, etching, pitting, staining	Pass
Steel-on-Steel Wear, AWSD	ASTM D4172	mm	1 Maximum	0.77
Foam, Tendency/Stability Sequence 1 Sequence 2 Sequence 3	ASTM D892	ml	65/0 Maximum 65/0 Maximum 65/0 Maximum	40/0 20/0 40/0
Particle Contamination per 100 ml, Autocount 5 - 25 Microns 26 - 50 Microns 51 - 100 Microns 100 plus Microns	FTM 3009	# of particles	10,000 Maximum 250 Maximum 50 Maximum 10 Maximum	3900 50 13 2
Filtration Time	Spec 4.5.6.3	Minutes	15 Maximum	7.5
Gravimetric Residue	ASTM D4898	mg per 100 mL	0.5 Maximum	0.23

Viscosity Index	ASTM D2270			291
Corrosion Inhibitors:				
Chloride Content as Calcium Chloride	Spec 4.5.10.1	%	0.02 Maximum	0.002
Sulfate Content as Calcium Sulfate	4.5.10.2.2	%	0.05 Maximum	0.01
Acid Number			0.10 Maximum	0.0
Workmanship	Spec 3.7	Pass/Fail	Pass	Pass

Subject to usual manufacturing tolerances.

Health, safety and environmental information are provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. User accepts all risks and liabilities if the product is used other than in the manner, with the precautions, or for the purpose(s) specified. Before using the product other than directed, please contact Castrol ILS for consultation.

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