



## Product Data

# Brayco<sup>®</sup> Micronic 883

Hydraulic Fluid, Rust Inhibited, Fire Resistant  
Synthetic Hydrocarbon Base

### Description

Brayco<sup>®</sup> Micronic 883 is a rust-inhibited fire resistant synthetic ISO viscosity Grade 15 hydraulic fluid for aircraft, ordnance and industrial use. It contains no viscosity index improvers and therefore, unlike conventional hydraulic fluids, it is not subject to polymeric breakdown. This product is compatible with MIL-PRF-5606H and MIL-PRF-6083F fluids in all proportions. Brayco<sup>®</sup> Micronic 883 is available in two types. Type I is undyed for use in ground equipment, such as tanks. Type II is dyed red for use in aerospace test stands and not intended for ground equipment use.

### Temperature Range

-45°C to 204°C (-50°F to 400°F).

### Uses

Brayco<sup>®</sup> Micronic 883 is primarily designed as a fire resistant hydraulic fluid with superior corrosion resistance. MIL-PRF-46170 is intended for use as a direct replacement for MIL-PRF-6083.

### Shelf Life

Brayco<sup>®</sup> Micronic 883 has a maximum recommended shelf life of 6 years from date of manufacture. This shelf life assumes that the product is stored in its original unopened packaging in ambient temperature conditions.

### Specification

Brayco<sup>®</sup> Micronic 883 (straw) meets and is qualified under military specification MIL-PRF-46170D, Type I.

Brayco<sup>®</sup> Micronic 883 (red) meets the requirements of military specification MIL-PRF-46170C, Type II (red).

Type I fluid is identified by NATO Code Number H-544.

Air BP Lubricants  
Division of BP Products  
North America Inc.  
Parsippany, NJ 07054-4406  
USA  
Email: [airbplubes@bp.com](mailto:airbplubes@bp.com)  
Tel.: +1 973 401 4350

**BRAYCO<sup>®</sup> MICRONIC 883**  
**TYPICAL PROPERTIES**

<b>TEST METHOD</b>	<b>DESCRIPTION</b>	<b>SPECIFICATION REQUIREMENTS</b>	<b>RESULT</b>
D 287	API Gravity, degrees	Report	35
Table 3	Specific Gravity @ 16/16°C (60/60°F)	Report	0.85
Table 8	Pounds per Gallon @ 16°C (60°F)	--	7.1
D 445	Kinematic Viscosity, cSt @ 204.4°C (400°F) @ 100°C (212°F) @ 40°C (104°F) @ -40°C (-40°F) @ -54°C (-65°F)	-- 3.4 Minimum 19.5 Maximum 2600 Maximum Report	1.15 3.7 15.6 2420 14,650
D 92	Flash Point, COC, °C Type II	204 Minimum	218
D 92	Fire Point, COC, °C (°F)	246 (475) Minimum	252 (485)
E 659	Auto-ignition Point, °C	343 Minimum	350
D 97	Pour Point, °C (°F)	-54 (-65) Maximum	-60 (-75)
D 2273	Trace Sediment, ml	0.005 Maximum	0.001
D 664	Acid Number, mgKOH/g	0.20 Maximum	0.05
D 1744	Water (Karl Fischer), %	0.05 Maximum	0.02
FTM 3458	Low Temperature Stability, 72 hrs @ -40°C (-40°F)	Pass	Pass
D 1748	Rust Prevention, Polished/Sandblasted Panels 100 hrs @ 100% humidity	Pass Pass	Pass Pass
FTM 3603	Rubber Swell, "L" Rubber, %	15 – 25	17
Spec 4.3.3.6	Water Sensitivity	90% Minimum	Pass
FTM 6052	High Temperature Pressure Spray Ignition	Pass	Pass
D 5306	Flame Propagation, cm/s	0.30 Maximum	0.17
791-3009	Solid Particle Contamination, Autocount Number of Particles per 100 mL 5 - 25 microns 26 - 50 microns 51 - 100 microns 100 + microns	10,000 Maximum 250 Maximum 50 Maximum 10 Maximum	4000 36 4 1
D 2270	Viscosity Index	--	126
E-1269	Specific Heat by DSC, J/g.°K @ 70°C @ 100°C @ 130°C @ 160°C		2.262 2.364 2.469 2.571

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 Air BP for consultation.

**BRAYCO® MICRONIC 883**  
**TYPICAL PROPERTIES**

TEST METHOD	DESCRIPTION	SPECIFICATION REQUIREMENTS	RESULT
D 892	Foam Characteristics Sequence 1 @ 24°C (75°F) Tendency, ml Stability, ml Sequence 2 @ 93.5°C (200°F) Tendency, ml Stability, ml Sequence 3 @ 24°C (75°F) Tendency, ml Stability, ml	65 Maximum 0 Maximum 65 Maximum 0 Maximum 65 Maximum 0 Maximum	10 0 10 0 10 0
D 4172	Shell Four-Ball Wear Test, AWSD, mm 1200 rpm, 1 hr, 75°C (167°F) @ 10 kgf @ 40 kgf	0.30 Maximum 0.65 Maximum	0.25 0.47
FTM 5308	Oxidation and Corrosion Stability 168 hrs @ 121°C (250°F), weight change Copper, mg/cm <sup>2</sup> Magnesium, mg/cm <sup>2</sup> Aluminum, mg/cm <sup>2</sup> Cadmium, mg/cm <sup>2</sup> Steel, mg/cm <sup>2</sup> Viscosity change, % Change in neutralization number, mgKOH/g	±0.6 ±0.2 ±0.2 ±0.2 ±0.2 ±10% 0.30 Maximum	0.00 +0.01 0.00 -0.008 0.00 0.8 0.05

***Bulk Modulus, Isothermal Secant***

Spec 4.3.3.5	0 to 10,000 psi @ 37.8°C (100°F), kPa		
	215 psi		1.816x10E06
	1380 psi		1.2x10E06
	2959 psi		1.464x10E06
	4740 psi		1.546x10E06
	6680 psi		1.644x10E06
	8810 psi		1.744x10E06
	11111 psi		2.27x10E06
	13650 psi		2.58x10E06
	Average Secant Bulk Modulus	1.379x10E06 kPa	1.580 x10E06

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 Air BP for consultation.