Gulf Competition
RF800 and RF1000

High Performance Hydraulic Brake Fluids for Racing Applications

Product Description

Gulf Competition RF800 and RF1000 are extremely high performance glycol-based brake fluids designed for use in cars and motorbikes under racing and rallying conditions. Not only do these products far exceed the requirements of the United States Federal Motor Vehicle Safety Standard (FMVSS) 116 DOT 4, they have exceptionally high boiling points, over 300 °C – amongst the highest available in the market for glycol-based brake fluids. This feature distinguishes them from standard high performance brake fluids, as they are suitable for use even when the brake discs get so hot they start to glow orange-red. Under such high temperatures standard brake fluids could exceed their boiling point (typically 230-260 °C) and start to vaporise, thus seriously impairing braking performance. Gulf Competition Brake Fluids are available in two versions, with typical equilibrium reflex boiling points (ERBPs) of 305 and 325 °C.

Features and Benefits

- Extremely high boiling point minimises the risk of vapour lock when the brakes get very hot, as often happens under race conditions. This improves the reliability and safety braking of performance under the most severe situations.
- Excellent oxidative stability: resists oxidation at high temperatures encountered in disk braking systems
- Superior high temperature stability combined with low temperature fluidity, so the fluid maintains viscosity and lubricity at extreme temperatures, thus ensuring trouble-free operation
- Formulated to inhibit corrosion of the metallic components used in brake systems
- Compatible with all seals and metals used in vehicle braking systems requiring poly glycol brake fluids

Applications

- Severest duty applications, especially for car and motorcycle racing and rally events where high brake temperatures are to be expected
- For best results, bleed the brake system before each race and refill the reservoir with fresh brake fluid, especially if the brakes have been very hot and/or local atmospheric conditions are very humid.
- Hydraulic brake fluid systems (disk, drum and anti-locking brake systems) in cars, motorcycles and commercial vehicles where DOT 4 type of brake fluid is specified

Warnings and Advice

- Gulf Competition Brake Fluid should never be used in place of, or mixed with, silicone based brake fluids, nor should they be used where mineral oil brake fluids are recommended. Consult the vehicle handbook
- Brake fluids should be kept clean and dry. Store in the original, tightly-closed container to prevent water absorption. Dirt or water contamination can affect the performance of brake fluid and could cause brake system failure
- Do not re-fill brake fluid containers or re-use them for other liquids
- Brake fluids can affect the vehicle paintwork, so remove spills immediately, without rubbing
- Irritating to eyes; in case of eye contact flush with plenty of water and seek medical attention if irritation persists. Keep out of reach of children. Contains glycol ethers, if swallowed seek medical advice immediately and show the container label or Material Safety Data Sheet.
- Dispose of used brake fluid responsibly (EU waste code 16 01 13)

Race Pedigree

Gulf Competition products are used and endorsed by Aston Martin Racing. This team has have enjoyed great success at the Le Mans 24h Race and other events running under the famous Gulf blue and orange livery since 2008.

Typical Properties (vs. the DOT 4 specification)

Typical Values			Gulf Competition	
Property	**Test Method**	**DOT 4 Limits**	**RF800**	**RF1000**
Viscosity @ -40 ºC, cSt	FMVSS 116	1800 max.	**1700**	**1700**
Viscosity @ 100 ºC, cSt	FMVSS 116	1.5 min.	**2.6**	**2.6**
Equilibrium Reflex Boiling Point – Dry (ERBP), ºC	FMVSS 116	230 min.	**305**	**325**
Wet ERBP, ºC	FMVSS 116	155 min.	**205**	**205**
pH value	FMVSS 116	7.0 to 11.5	**7.15**	**7.15**
Density @ 15ºC, Kg/l	ASTM D 1298	n/a	**1.08**	**1.08**
High Temperature Stability, ºC	FMVSS 116	-3 to +3 ºC	**-1**	**-1**
Chemical Stability, ºC	FMVSS 116	-3 to +3 ºC	**+1**	**+1**

January 2011