



# AMSOIL Synthetic Brake Fluids

**Series 500 DOT High-Performance (BF3)**

**Series 600 DOT 4 Racing (BF4)**

## PRODUCT DESCRIPTION

AMSOIL Series 500 DOT 3 High-Performance Synthetic Brake Fluid and AMSOIL Series 600 DOT 4 Synthetic Racing Brake Fluid use pure base stocks and robust additives to combat boil-off and the effects of water contamination more effectively than conventional brake fluids. AMSOIL Synthetic Brake Fluids deliver superior high-temperature performance in auto/light truck, high-performance, racing and power-sports applications.

### Contamination

Water contaminates the brake system by seeping through microscopic pores in flexible brake lines and seals and through the reservoir fill cap when opened. Once inside, it quickly works to corrode brake parts, lines and seals, leading to eventual system failure. AMSOIL Synthetic Brake Fluids keep water in suspension, slowing its corroding effects. Their superior formulation lubricates and protects intricate braking components despite the inevitable water absorption associated with braking systems, delivering longer-lasting performance compared to conventional fluids.

## Boil-Off

The extreme pressure and high heat common to braking can push conventional brake fluid beyond its boiling point, causing it to vaporize, or "boil-off." Even more problematic, water contamination can drop the boiling point of conventional fluid below safe standards, accelerating the rate at which it boils-off. This leads to a spongy or unresponsive feeling in the brake pedal. In contrast, the unique chemistry behind AMSOIL Synthetic Brake Fluids push their boiling point temperatures well beyond Department of Transportation (DOT) standards even when contaminated with 3 percent water (see chart). They maintain a stable viscosity over a wide temperature range and flow easily at the highest pressures generated in today's automotive brake systems to deliver consistent, safe braking. AMSOIL Series 600 DOT 4 Synthetic Racing Brake Fluid features a wet equilibrium reflux boiling point (Wet ERBP) nearly 100°F higher than the DOT minimum, making it the ideal choice for high-performance cars, motorcycles and vehicles used for towing.

	DOT Minimum	AMSOIL
<b>DOT 3</b>		
ERBP*:	205°C (401°F)	274°C (525°F)
Wet ERBP**:	140°C (284°F)	156°C (313°F)
<b>DOT 4</b>		
ERBP*:	230°C (446°F)	304°C (580°F)
Wet ERBP**:	155°C (311°F)	210°C (410°F)

\*Dry equilibrium reflux boiling point (ERBP)—the boiling point of new, freshly opened brake fluid.

\*\*Wet ERBP—the boiling point of brake fluid having absorbed 3 percent water. Only 3 percent water contamination is often sufficient to reduce a DOT 3 fluid's boiling point below the DOT minimum.



# Typical Technical Properties

## AMSOIL Series 500 DOT 3 High-Performance Synthetic Brake Fluid and AMSOIL Series 600 DOT 4 Racing Synthetic Brake Fluid

### Series 500 DOT 3 High-Performance

### Series 600 DOT 4 Racing

Equilibrium Reflux Boiling Point

Dry °C (°F)

274 (525)

304 (580)

Wet °C (°F)

156 (313)

210 (410)

Viscosity

-40°C (-40°F), cSt

1065

1550

100°C (212°F), cSt

2.0

2.0

pH

9.0

7.2

### Powersports

The aggressive driving conditions and sudden stops common to some on- and off-road motorcycle and ATV applications can literally boil conventional brake fluid, leaving behind a discolored, dirty solution that can promote deposit formation and corrosion on braking components. Worn brake fluid also fails to deliver adequate protection against water ingress common to powersports equipment exposed to the elements.

The synthetic base stocks and superior additives in AMSOIL Synthetic Brake Fluids excel in demanding powersports applications, providing reliable brake lever and pedal response, corrosion protection and longevity as compared to conventional brake fluids. AMSOIL Synthetic Brake Fluids are the product of choice for racing, heavy hauling or leisure powersports applications.

### APPLICATIONS

Consult the AMSOIL Online Product Applications Guide at [www.amsoil.com](http://www.amsoil.com) for application information. For powersports applications, consult the owner's manual to determine the correct DOT classification.



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