



Product Data Sheet

ESSO BRAKE FLUID

HYDRAULIC BRAKE FLUID

November 2006

ESSO BRAKE FLUID is a complex mixture of non-petroleum components (polyalkylene glycols and glycol ethers) and additives. ESSO BRAKE FLUID offers the following features and benefits:

- ◆ DOT 3
- ◆ Conforms to the SAE Specification J1703
- ◆ Fully meets the requirements of Canadian and US Motor Vehicle Safety Standard 116 Brake Fluid
- ◆ Suitable for ABS systems

Primary Applications

ESSO BRAKE FLUID is recommended for the hydraulic brake systems including ABS systems of automobiles, trucks, and off-highway equipment requiring a fluid meeting CMVSS 116, SAE Specification J1703. This fluid may replace or be used with other brake fluids graded DOT 3, unless the manufacturer specifically requires the use of higher boiling fluids such as DOT 4 or DOT 5, or arctic atmospheric conditions are encountered. Also, in some cases OEM's will mandate the use of specific fluids.

Great care needs to be taken with brake fluids in general to prevent contamination during use with mineral oil, solvents, dirt and excessive moisture. It can have serious performance degradation consequences that can result in poor brake system operation or even system failure.

Performance Features

ESSO BRAKE FLUID has a high equilibrium reflux boiling point to resist the heat generated in high speed and overload vehicles while breaking. This special fluid will not cause deterioration of the rubber components or corrosion of the metal components of any brake system for which this type of fluid is recommended. Low temperature testing has shown that this fluid is stable at temperatures as low as -50°C. ESSO BRAKE FLUID also possesses the necessary viscosity characteristics to keep brake systems, including ABS systems, operative over a wide temperature range.

Precautions

ESSO BRAKE FLUID is manufactured from high quality synthetic base stocks, carefully blended with selected additives. As with all of our products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. This product contains materials that are irritating, and may injure eye tissue if not removed promptly. Frequent or prolonged contact may irritate the skin. When no longer suitable for service, ESSO

BRAKE FLUID should be disposed of through an authorized liquid waste disposal company. ESSO BRAKE FLUID should not be mixed with used petroleum base oils that are intended to be collected and recycled by a re-refiner. Please refer to the Material Safety Data Sheet for further information.

Note: This product is controlled under Canadian WHMIS legislation

Typical Properties

	ESSO BRAKE FLUID
Appearance	Clear and Bright
Density @ 20°C, kg/L	1.027
Colour	Light Amber
Equilibrium Reflux Boiling Point, °C (min.)	260
Viscosity, cSt @ -40°C @ 100°C	1,400 1.5
High Temperature Stability, Boiling Point Change (max)	+/- 3 °C
Chemical Stability, Boiling Point Change (max)	+/- 3 °C
Effect on Rubber at 100°C Hardness change Increase in base diameter (max)	0 - 15 Points 1.3 mm
Fluidity @ -40°C @ -50°C	Pass Pass
Corrosion, SAE Test	Pass

The values shown above are representative of current production. Some are controlled by manufacturing and performance specifications while others are not. All may vary within modest ranges.