Technical Data Sheet

Shell **Brake and Clutch Fluid** *DOT 4*

Premium, high performance DOT 4 brake fluid

Shell Brake and Clutch Fluid DOT 4 is a heavy duty brake system and hydraulic clutch fluid for systems requiring a FMVSS No 116 DOT 4, ISO 4925 Class 4, or many other equivalent specifications in a borate ester (borate ester of polyglycol-ether) brake fluid.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **High Boiling Point**
  Shell Brake and Clutch Fluid DOT 4 exceeds requirements for wet and dry equilibrium reflux boiling points (Wet ERBP and Dry ERBP) to help prevent vapour lock resulting from boiling of the brake fluid.
- **Corrosion Protection**
  Shell Brake and Clutch Fluid DOT 4 protects internal components from corrosion under normal use and service.

Main Applications

- Suitable for applications requiring a DOT 4 performance level brake fluid. Shell Brake and Clutch Fluid DOT 4 may be substituted when a DOT 3 fluid is required.
- Passenger cars up to medium trucks of a variety of makes and models.
- Hydraulic brake systems.
- Hydraulic clutch systems.
- Fully miscible with other DOT 3 and 4 brake fluids.

Specifications, Approvals & Recommendations

- USA FMVSS No. 116 DOT 4
- ISO 4925 Class 4
- JIS K 2233 Class 4
- AS/NZ 1960 Class 2
- SAE J1704

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Typical Physical Characteristics

Properties			Method	Shell Brake and Clutch Fluid DOT 4
Kinematic Viscosity	@-40°C	mm^2/s	FMVSS No. 116 5.13	<1500
Kinematic Viscosity	@100°C	mm^2/s	FMVSS No. 116 5.13	>1.5
Density	@20°C	kg/m^3	ASTM D4052	1 050 - 1 100
Water Content		%	ASTM D1364	<0.2
pH (FMVSS No 116)			5.14	8
Dry ERBP (FMVSS No. 116)		°C	5.11	260
Wet ERBP (FMVSS No. 116)		°C	5.12	165

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

- **Health and Safety**

  Shell Brake and Clutch Fluid DOT 4 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from http://www.epc.shell.com/

- **Protect the Environment**

  Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative.