Brake and Clutch Fluid DOT 4
High performance brake and clutch fluid

Product description

Brake and Clutch Fluid DOT 4 is a high performance non-petroleum automotive brake fluid designed for conventional hydraulic brake and clutch systems.

Brake and Clutch Fluid DOT 4 is formulated for use under severe operating conditions or where DOT 4 fluids are recommended. Brake and Clutch Fluid DOT 4 combines a complex combination of Polyglycols, Polyglycol Ethers and Glycol Ether Borate Esters, blended with inhibitors designed to prevent corrosion, oxidation and to control seal swell characteristics.

Customer benefits

- Higher and maintained fluid boiling point in service promotes lower vapour formation and greater braking performance than DOT 3
- Designed to aid vapour lock prevention, offering greater braking safety margin than lower specification fluids
- Formulated for use in a wide range of conventional systems, reducing inventories and costs
- Buffered formulation offers protection to cast iron and steel, helping prevent system damage and loss of performance
- Advanced inhibitor technology offers corrosion protection to aluminium, brass, copper, zinc and tin components
- Seal swell and lubricity performance help minimise fluid leakage through seal shrinkage
- Thermal and oxidation stability assist in preventing fluid degradation and retaining key performance features across fluid lifetime

Applications

- Brake and Clutch Fluid DOT 4 meets the recognised standards for clutch and brake fluids as demanded by leading motor vehicle manufacturers. Additionally, it complies with the US Federal Motor Vehicle Services Specification (FMVSS) No. 116 DOT 4, DOT 3, SAE J 1703 and ISO 4925 specifications.
It also meets the requirements of the earlier specifications: SAE 70R 1 and 3, SAE J70 C, SAE J 1703 A to F and SAE J 1703 Jan 80, Nov 83 and Oct 85

- Hydraulically operated motor vehicle braking systems (drum and disc types) for which a DOT 4 or SAE J1704 fluid is specified
- Make-up or service fill of braking systems requiring DOT 3 or SAE J1703 fluids
- Vehicles with anti-lock (ABS) braking systems
- Hydraulic clutch systems requiring conventional fluids
- Passenger cars, commercial road transport, off-highway vehicles, agricultural tractors and motorcycles

• Brake and Clutch Fluid DOT 4 is compatible with other brands of DOT 4/DOT 3 brake fluid
• Brake and Clutch Fluid DOT 4 should not to be used in systems designed for mineral oil based fluids (LHM), for example certain Citroën models, or where Silicone DOT 5 fluids are recommended

Approvals and performance

Performance

- FMVSS 116 DOT 3 Meets requirements
- FMVSS 116 DOT 4 Meets requirements
- Ford ESD-M6C57-A Meets requirements
- Ford ESD-M6C9102-A Meets requirements
- Ford ESD-M6C9103-A Meets requirements
- ISO 4925 Meets requirements
- JIS K2233 TYPE 3 Meets requirements
- JIS K2233 TYPE 4 Meets requirements
- NATO H-542 (OX-8) Meets requirements
- SAE J1703 Meets requirements
- SAE J1704 Meets requirements
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continued

Typical test data

<table>
<thead>
<tr>
<th>TEST</th>
<th>TEST METHODS</th>
<th>RESULTS</th>
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<td>Product Code</td>
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<td>Colour</td>
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Product maintenance and handling

Brake fluids absorb moisture from the air. This lowers the boiling point of the fluid and reduces the margin of protection against “vapour lock”, a phenomenon which arises from the formation of vapour bubbles in the brake system and causes spongy pedal action or complete loss of braking effectiveness. Conditions conducive to vapour lock include frequent braking during long descents, towing heavy loads or binding brakes.

In order to minimize the amount of moisture absorbed, it is important that containers of brake fluid be kept tightly sealed and stored in a clean, dry location. Small containers should be used immediately after opening and then disposed of, along with any remaining contents, in accordance with local regulations.

In service, brake fluids slowly absorb moisture, both through the rubber brake hoses and also via the reservoir vent. For this reason, most vehicle manufacturers recommend regular changes of brake fluid at intervals varying from 12 to 36 months. Unless the vehicle manufacturer recommends otherwise, Caltex recommends that brake fluid is changed at 24-monthly intervals in order to avoid the danger of vapour lock outlined above.
continued

Always change brake fluid in accordance with the vehicle manufacturer’s recommendations.

When changing brake fluid, it is critical that no contamination of the fluid occurs. Contact with even small quantities of dirt, solvents, or particularly petroleum based products (mineral oils, fuels, greases, etc.), may result in complete brake failure or costly repairs, while contamination with moisture can cause vapour lock in service. Absolute cleanliness is essential to avoid these problems.

Under no circumstances should Brake and Clutch Fluid DOT 4 be mixed with any petroleum product, such as engine oil or hydraulic fluid. The use of brake fluid contaminated with mineral oil damages brake system seals which are specifically designed to be compatible with non-petroleum brake fluids, leading to leakage of the brake fluid and the compromise of brake system performance.

Brake fluid can damage vehicle paintwork, and it should be washed off with water immediately if it comes into contact.

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

Disclaimer: Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheet’s.

Health, safety, storage and environmental: Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS’s are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.

For more information, go to www.chevronlubricants.com