

# Super DOT 4 Brake Fluid

Nulon Extreme Performance Brake Fluid (XBF) is a high-performance borate ester brake fluid (Super DOT 4) which optimises the benefits of superior boiling point and high vapour lock temperature throughout its service life.

Nulon Extreme Performance Brake Fluid is compatible with all metals and rubber seals typically used in automotive braking systems. It is intended for use both as initial fill and in aftercare markets. Nulon Extreme Performance Brake Fluid (XBF) is manufactured as a clear amber coloured fluid. It is suitable for all disc, drum, anti-skid ABS braking and electronic stability control systems used in standard to high performance vehicles with high thermal load around the braking system.

### Service Life:

Nulon XBF should be changed every 24 months under standard driving conditions in order to maintain protection against vapour lock and corrosion.

### Compatibility:

Nulon XBF is only compatible with brake fluids that meet the DOT 4 or Super DOT 4 brake fluid specifications.

### International and National Standards:

Nulon XBF exceeds the requirements of FMVSS 116 (DOT 4), ISO 4925, GMH HN 1796, FORD ESZ-M6C55-A, AS 1960.1-2005 (Grade 3), SAE J1704

### Typical Properties:

Test	Result
pH	7.6
Reserve alkalinity (ml)	59
Flash point (open cup), °C	156
Density @ 20°C (g/ml)	1.074
Soluble In water	Miscible

### Key Properties:

Property	Typical Result	AS 1960.1 (Grade 3)	SAE J1704	FMVSS No.116 (Dot 4)	ISO 4925
Equilibrium Reflux Boiling Point (ERBP), °C min	284	260	230	230	205
Wet Equilibrium Reflux Boiling Point (WERBP), °C min	183	170	155	155	140
Viscosity					
(-40°C) mm <sup>2</sup> /s max	1231	1800	1800	1800	1500
(100°C) mm <sup>2</sup> /s min	2.5	1.5	1.5	1.5	1.5

Part No	Pack Size	Barcode	Cartoon QTY
XBF	500 ml	9311090 000490	12
XBF-20	20 Litre	9311090 002371	1

### Useful Information:

Nulon XBF contains inhibitors to reduce corrosion of the many alloys components found in braking systems. Oxidation inhibitors are also used to prevent the oxidation process of the fluid.

Nulon XBF has no adverse effect on the physical properties of the rubber cups and O rings used in the master and wheel cylinders.

Equilibrium reflux boiling point (ERBP) is the average temperature of a fluid boiling under equilibrium conditions (reflux) at atmospheric conditions. High performance brake fluids such as Nulon XBF must have a high enough boiling point (ERBP) to resist vapour lock under severe braking conditions. Note that the boiling point of the brake fluid will deteriorate significantly with moisture adsorption. With use, brake fluid absorbs water from the atmosphere and reduces the ERBP.

It is difficult to completely seal the braking system to prevent the ingress of atmospheric moisture or water splashes through hoses and the master cylinder. Brake fluids must withstand the absorption of at least 3% to 4% water without lowering the boiling point to a dangerous level. The presence of more free water significantly increases the chance of brake failure due to vapour lock and can promote corrosion of the brake system. This is why it is so critical to change the fluid every two years.

**Safety Directions:** Avoid contact with skin and eyes.

### First Aid Instructions:

If poisoning occurs, contact a doctor or Poisons Information Centre (Ph. Australia 131 126; New Zealand 0800 764 766). If swallowed, give plenty of water to drink and seek medical assistance. If in eyes, hold the eyes open, flood with water for at least 15 minutes and consult a doctor. Wash contaminated skin. If irritation occurs, seek medical advice. Not to be used as a food container.

**Caution:** Do not spill on paintwork. If fluid is spilt on paintwork, do not wipe off, wash off immediately with water. Contamination of brake fluid or brake components with petroleum, oil, water, dirt, silicon fluids or other fluids may result in brake failure. Maintain cleanliness when handling brake components and dispensing equipment. Brake fluid absorbs moisture. Reseal all containers with caps immediately. Discard resealed containers after 12 months of opening. Do not re-use empty containers.

