CASTROL ANTIFREEZE SF

DESCRIPTION:
Castrol Antifreeze SF mixed with the appropriate amount of water is used as a heat transferring liquid in combustion engines. The heat of the internal combustion is transferred to the radiator where the mixture is cooled by means of airflow. Castrol Antifreeze SF provides maintenance free freezing and corrosion protection throughout the life of the engine or vehicle. Using silicate free aliphatic acid technology, Castrol Antifreeze SF provides long life corrosion protection for aluminium and ferrous alloys. The synergistic combination of mono and di-carboxylic acids has been proved to provide superior protection for up to 700 000 km on-road, or as long as 8 000 hours off-road.

APPLICATION:
- Castrol Antifreeze SF provides long-life frost and corrosion protection. To ensure good corrosion protection it is recommended to use at least 33% volume of Castrol Antifreeze SF in the coolant solution. This provides frost protection to -20°C. Concentrations higher than 70% volume are not recommended.
- Castrol Antifreeze SF may be used with confidence in engines manufactured from cast iron, aluminium or combinations of the two metals, and in cooling systems made of aluminium or copper alloys.
- Castrol Antifreeze SF is particularly recommended for advanced engines, where high temperature aluminium protection is important.

BENEFITS:
- Castrol Antifreeze SF provides long life corrosion protection through the use of optimised organic corrosion inhibitors against all forms of corrosion. Excellent and lasting high temperature corrosion protection is provided for the aluminium heat transfer surfaces found in modern engines. Castrol Antifreeze SF offers excellent cavitation protection without nitrite.
- The carboxylic acids found in Castrol Antifreeze SF form a single layer of protective molecules and compared with the traditional silicate layers this provides a much more efficient heat transfer.
- The inhibitors contained in Castrol Antifreeze SF have very low depletion rates unlike the traditional nitrite and silicate technologies. Castrol Antifreeze SF provides protection against localised corrosion and cylinder liner cavitation without the use of supplement coolant additives. Extended coolant life, often for the life of the engine or vehicle is obtained through the use of virtually non-depleting corrosion inhibitor.
• The outstanding corrosion protection and the low depletion of the inhibitors result in less refilling and lower maintenance costs. Fleet tests have demonstrated that the average pump life increased by 50%.

• Traditionally, coolant formulations have included silicates for high temperature corrosion protection of aluminium heat transfer surfaces. However, silicates can cause stability problems and are subject to rapid depletion in service and are therefore not readily acceptable for inclusion in fill-for-life cooling systems. Because of the nature of the inhibitors, Castrol Antifreeze SF demonstrates outstanding stability, even in the most demanding circumstances.

• Castrol Antifreeze SF is a modern engine coolant concentrate based on ethylene glycol. A 50% solution of Castrol Antifreeze SF will give frost protection to -40°C.

• Castrol Antifreeze SF minimises coolant boiling by increasing the boiling point and providing extra protection during hot summer periods or during severe vehicle operation, such as mountain driving or caravan towing.

• Castrol Antifreeze SF is compatible with other coolants based on ethylene glycol. Exclusive use of the product is recommended for optimum corrosion protection and sludge control.

• Castrol Antifreeze SF provides excellent seal compatibility. The coolant has no adverse effects on rubber hoses and gasket materials.

• Free of silicates, Castrol Antifreeze SF satisfies all major standards and requirements of the major European car and truck manufacturers.

Castrol Antifreeze SF is based on non-toxic inhibitors and is fully biodegradable. The extended life of the product contributes to the protection of the environment.

STANDARDS AND APPROVALS:

Castrol Antifreeze SF satisfies or exceeds all major standards. Approvals of the major European car and truck manufacturers are available or pending. Approvals include:

• VW TL 774-F (G12+)
• MB Page 325.3
• MAN 324 type SNF
• BS 6580:2010-06-01
• ASTM D3306, ASTM D4985
• JIS K2234
TYPICAL CHARACTERISTICS:

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<tr>
<td>Product code</td>
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<tr>
<td>Density @ 20°C (g/ml)</td>
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