

Packaging

Mobil Antifreeze Long Life Concentrate is available in 1L, 5L, 20L, 208L and 1000L pack sizes.

Handling

- Minor spills should be soaked up with oil absorbent granules, sand or dirt. The spillage site should then be washed with soapy water and dried.
- Wash off any spillage on paintwork immediately.
- Avoid contact with galvanised equipment when storing or dispensing this product, as this will prompt a corrosive reaction and contaminate the product.
- Disposal of used or unused coolant must be carried out in accordance with local and national law, consult the material safety data sheet for further information.

Storage Stability

- Mobil Antifreeze Long Life Concentrate has a shelf life of five years when stored in air-tight containers at a maximum temperature of 30°C.
- Periods of exposure to extreme temperatures should be avoided.
- All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings.
- Manufacture date can be identified from an eight digit code printed on the product. YYYY.MM.DD.

Safety

As with all chemical products, awareness and control of any potential hazards is of high importance. Please consult the material safety data sheet which is available detailing the hazards associated with this product.

Note

The data contained in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, this data does not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

Mobil™ Antifreeze Long Life Concentrate

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Mobil™ Antifreeze Long Life Concentrate

Data Sheets



Properties and Performance

Mobil Antifreeze Long Life Concentrate is an engine coolant concentrate (antifreeze) based on monoethylene glycol and organic additive technology. This product contains no nitrites, amines, phosphates, borates, silicates and no other mineral additives. Mobil Antifreeze Long Life Concentrate is suitable for both petrol and diesel engines and gives the following advantages in aqueous mixtures:

- Increased life time, allowing less frequent maintenance thanks to the corrosion inhibitors which have a very low depletion rate.
- Thermal characteristics that permit effective engine cooling without boiling.
- Elimination of deposit problems caused by use of hard water.
- Elimination of abrasives solids, which gives a better protection of the joints of the water pump.
- Improved anticorrosion protection of all metals and alloys used in the cooling system of modern vehicles, especially the aluminium.
- Protection against frost, depending upon the concentration chosen.
- Excellent antifoaming characteristics.
- Meets most European and International Standards.

This Engine Coolant Concentrate conforms to BS-6580-2010; ASTM D3306, ASTM D4985; SAE J1034; AFNOR NF R15-601 (with exception of reserve alkalinity); FFV Heft R443; CUNA NC 956-16; UNE 26361-88; JIS K 2234; NATO S 759.

Recommended for applications requiring:

AUDI/SEAT/SKODA/ VW (TL774D); FORD (WSS-M97B44-D); MB 325.3; RENAULT 41-01-001; Chrysler MS 9176; Cummins CES 14603; FORD ESE M97B849-A & ESD M97B49-A; GM 1899 M, US 6277 & OPEL GM QL130100; John Deere H 24 B1 & C1; Leyland Trucks LTS 22 AF 10; Mack 014GS 17004; MAN 248, 324 (SNF) & B&W D 36 5600; VAG TL 774F; Volvo VCS.

Mobil Antifreeze Long Life Concentrate is an extended life antifreeze which should be replaced every five years or every 250,000 km for passenger vehicles or every 1,000,000 km for trucks and commercial vehicles. Original Equipment Manufacturers' (OEMs) recommendations should be followed when replacing coolant.

Mobil™ Antifreeze Long Life Concentrate

Typical Properties

Density @ 20°C	1.119 g/cm ³	ASTM D 4052
pH (50% vol in water)	8.2	ASTM D 1287
Freezing Point (50% vol in water)	-36°C	ASTM D 1177
Boiling Point	172°C	ASTM D 1120
Reserve Alkalinity (ml HCl N/10)	6.2ml	ASTM D 1121
Water Content	2.8% wt	ASTM D 1123
Foaming Characteristics @ 88°C		ASTM D 1881
▪ Height	35ml	
▪ Breaktime	1.5 seconds	

These are typical properties and do not constitute a specification, for specification limits please refer to the product specification.

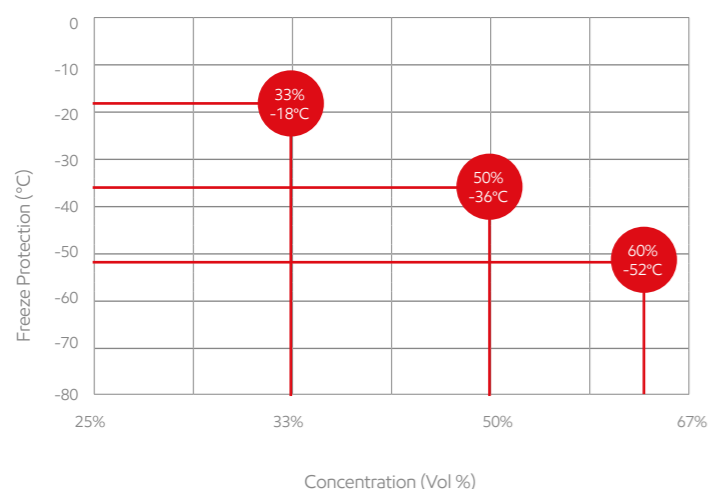
Freeze Protection

Mobil Antifreeze Long Life Concentrate is a concentrated product and should be diluted for use with good quality water in accordance with the vehicle manufacturer's instructions. For optimum performance distilled or deionized water should be used. The freeze protection afforded by the various dilutions is detailed in the table below:

Concentrate (Vol %)	H ₂ O (Vol %)	Freeze Protection (°C)
33	67	-18
50	50	-36
60	40	-52

In order to provide a satisfactory level of corrosion protection it is recommended to use at least 33% volume of Mobil Antifreeze Long Life Concentrate in the coolant solution. In line with most car manufacturers a 50% volume solution for optimum performance is recommended. For cold climates use 60% volume, concentrations above 60% volume are not recommended and give no advantage.

Freeze Protection of Mobil Antifreeze Long Life Concentrate Mixtures with Water



Freezing Protection = Average of Freezing Point (ASTM D1177) and Pour Point (ASTM D97)

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Corrosion Protection

Protection from corrosion is the most important function of a coolant concentrate and is achieved by the inclusion of a well-balanced inhibitor package. In modern engines with the greater use of aluminium alloys and thinner section castings, avoidance of corrosion problems is critical.

The tables below demonstrate the effective corrosion protection provided when tested against the industry standards such as ASTM D1384 (multi-metal corrosion in glassware) and ASTM D4340 (corrosion of cast aluminium alloys under heat-rejecting conditions).

ASTM D1384

(Glassware Corrosion, mg per test piece)

Test Specimen	Monoethylene Glycol*	Coolant*	ASTM D3306 Limit
Copper	6.5	0	10
Solder	345	-5	30
Brass	8	1	10
Steel	1474	1	10
Cast Iron	2472	1	10
Aluminium	30	1	30

* 33% vol in H₂O

ASTM D4340

(Corrosion of Cast Aluminium Alloys under Heat-Rejecting Conditions)

Mass Change (mg/cm ² /week)	ASTM D3306 Limit
0.2	1.0

Miscibility

Although it is always recommended to use deionized or de-mineralized water to dilute antifreeze, Mobil Antifreeze Long Life Concentrate is formulated to be able to cope with different water qualities and is compatible with hard water.

Mobil Antifreeze Long Life Concentrate is fully miscible with other coolants and can be safely mixed with them. However, as Mobil Antifreeze Long Life Concentrate employs an inhibitor type that is very different to that used in traditional mineral coolants it recommended to drain and flush cooling systems containing them before recharging with diluted Mobil Antifreeze Long Life Concentrate. Failure to do so could significantly lower the performance and longevity of the product.

Quality Control

The above-listed data represent average values at the time of going to press of this Data Sheet. They are intended as a guide to facilitate handling and cannot be regarded as specified data. Specified product data is issued as a separate product specification.

Color / Appearance

Clear bright red liquid.