Use of anti-freeze

The most generally used anti-freeze agents are ethylene glycol and methylated spirits. The disadvantage with methylated spirits is that it evaporates rapidly at normal engine temperatures and thus frequent checking and topping-up is required. For this reason ethylene glycol is the most suitable anti-freeze agent.

A solution of pure glycol in water, however, has a corrosive effect on the engine cooling system. The ethylene glycol which is available on the open market contains therefore certain anti-corrosion additives. These additives are, from a chemical point of view, only present in small quantities i.e. sufficient to last for one winter season and under unfavourable conditions, they may be used up more rapidly. This can occur if frost, sludge or flushing agent remain in a poorly cleaned radiator.

In order to avoid damage to the radiator and the engine when using ethylene glycol, the following procedure should be carried out:

1. Clean the whole cooling system thoroughly. Do not forget the heater system.

2. Check for tightness and seal any leaks.

3. Check the thermostat.

4. Add the mixture of water and ethylene glycol (with anti-corrosion additives). Suitable proportions are shown in the instruction books.

5. After the winter season, rinse out the entire cooling system immediately after the ethylene glycol has been drained. Then add anti-corrosion agent (of which many are available) to the cooling water.

If the ethylene glycol solution used last winter is to be used again, anti-corrosion agent must be added. Since it is difficult to determine the quantity required, we do not recommend the use of the same ethylene glycol solution for more than one winter season.