A. De-oiling

- 1 Completely drain coolant.
- 2 Remove coolant thermostat and, on vehicles with and without air conditioning, set heating regulation to full heating output.

 On vehicles with automatic climate control (model 123), depress push-button "DEF".
- 3 Fill cooling system with a 5 % solution of water and cleaner, e.g. P 3-Standard (made by Henkel) (50 g cleaner/1 liter water).

Attention!

On vehicles with aluminum radiator, a neutral cleaner or a midly alcaline cleaner, e.g. P 3-Croni (made by Henkel) or Grisiron 7220 (made by Farbwerke Höchst) must be used instead of the heavily alcaline cleaner P 3-Standard.

- 4 Run engine warm at medium speed up to approx. $80 \,^{\circ}$ C (176 $^{\circ}$ F) and hold at this temperature for about 5 minutes.
- 5 Stop engine and permit cooling system to cool down to approx. 50 °C (122 °F).
- 6 Completely drain solution.
- 7 Immediately thereafter, fill cooling system twice with fresh water, run warm (approx. 5 minutes) and drain.

B. Decalcification, derusting

Attention!

Prior to decalcification, **be sure** to de-oil cooling system, even if there is no visible oiling up.

1 After second flushing job during de-oiling, fill cooling system with a 10% (100 g/l) solution of water and citric acid, tartaric acid or oxalic acid (sold by the chemical trade) while giving preference to citric acid.

- 2~ Run engine warm at medium speed up to approx. 80 $^{\circ}\text{C}$ (176 $^{\circ}\text{F})$ and hold for approx. 10 minutes at this temperature.
- 3 Stop engine and permit cooling down to approx. 50 $^{\circ}$ C (122 $^{\circ}$ F).
- 4 Completely drain decalcification solution.
- 5 Flush cooling system at least 3 times with fresh water while running engine for at least 5 minutes with each flushing charge.

Badly calcified cooling systems may require a repetition of the treatment. Always prepare a fresh decalcification solution and repeat flushing steps.

- 6 Install coolant thermostat with new sealing ring.
- 7 Fill the cooling system with coolant (20-010).

Note: For decalcification and derusting, commercial products made with the acids named above may also be used.

Chromic acid or products containing chromates are prohibited by sewage regulations.