Titanium tetra-butoxide was reacted with dichloroacetic acid in 1:1 and 1:2 molar ratio in toluene at ambient temperature to give, respectively, the mono- and bis-substituted products Ti(OBu₄)₃(OOCCHCl₂) and Ti(OBu₂)₂(OOCCHCl₂)₂ (1) in quantitative yields. However, when a toluene solution of compound 1 was kept at −20 °C for crystallisation, colourless crystals of a hexanuclear complex Ti₆(μ₂-O)₂(μ₃-O)₂(μ₂-OC₄H₉)₂(OC₄H₉)₆(OOCCHCl₂)₈ (2) were obtained. The basic skeletal arrangement of compound 2, as revealed by X-ray diffraction, can be described as corner-removed, inversion-related [Ti-O]₄ cubes with face-linked oxide bridges.

Key words: Titanium, Butoxy, Oxo, Dichloroacetate, Crystal Structure