



>>Entry Name: Titanium(IV) *tert*-butoxide

Synonym(s): Tetra-*tert*-butoxytitanium(IV). 2-Methyl-2-propanol titanium(4+) salt, 9Cl. *tert*-Butanol titanium(IV) salt. *tert*-Butyl titanate(IV)

CAS Registry Number: 3087-39-6

Ti[OC(CH₃)₃]₄

Molecular Formula: C₁₆H₃₆O₄Ti

Molecular Weight: 340.338

Accurate Mass: 340.209307

Percentage Composition: C 56.47%; H 10.66%; O 18.80%; Ti 14.07%

Use/Importance: Catalyst. Used in Ziegler polym. of alkenes

Physical Description: Oil

Boiling Point: Bp₁ 102° (Bp₇ 99°)

Density: d₄²⁰ 0.883

Other Data: Rapidly hydrol. in water. Heating gives a hard insoluble resin. Exists as monomer in soln.

Aldrich: 46255-1

References:

Cullinane, N.M. *et al.*, *J. Appl. Chem.*, 1951, **1**, 400, (*synth, props*)

Bradley, D.C. *et al.*, *J.C.S.(A)*, 1968, 1316, (*props, pmr*)

Thomas, L.H. *et al.*, *J.C.S.(A)*, 1969, 1271, (*props*)

Holloway, C.E., *J.C.S. Dalton*, 1976, 1050, (*cmr*)

Vyshinskaya, L.I. *et al.*, *Zh. Obshch. Khim.*, 1988, **58**, 1332; *J. Gen. Chem. USSR (Engl. Transl.)*, 1988, **58**, 1185, (*synth, reactions*)