



>>Entry Name: Chlorotris(2-propanolato)titanium(IV), 11Cl

Synonym(s): Chlorotriisopropoxytitanium. Titanium chloride triisopropoxide. Triisopropoxytitanium chloride

CAS Registry Number: 20717-86-6

TiCl(OCHMe₂)₃

Molecular Formula: C₉H₂₁ClO₃Ti

Molecular Weight: 260.596

Accurate Mass: 260.065869

Percentage Composition: C 41.48%; H 8.12%; Cl 13.60%; O 18.42%; Ti 18.37%

General Statement: Tetrahedral

Source/Synthesis: Synth. by adding TiCl₄ to Ti(OPrⁱ)₄ at 0° followed by distillation, or from TiCl₄, 2-propanol and Et₃N

Use/Importance: Many patents cover the use of this compd. for alkene polym. Mild Lewis acid; used for synth. of organotitanium derivs. and Ti enolates. Selectively cleaves allyl ethers and carboxylates in the presence of CyMgCl or BuMgCl

Physical Description: Colourless solid

Melting Point: Mp 45-50°

Boiling Point: Bp_{0.1} 61-65°

Solubility: Sol. pentane, toluene, Et₂O, THF, CH₂Cl₂

Hazard & Toxicity: Fl. p. 22°

Aldrich: 25062-7

Fluka: 26565

Other: Gelest AKT851

References:

Choukroun, R. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1974, **278**, 113, (*synth, magneto-optical props*)

Rausch, M.D. *et al.*, *J. Organomet. Chem.*, 1974, **74**, 85, (*reactions*)

Czaja, K. *et al.*, *Polimery (Warsaw)*, 1984, **29**, 411, (*use*)

Reetz, M.T. *et al.*, *Chem. Ber.*, 1985, **118**, 1421, (*synth, reactions*)

Organometallics in Synthesis, (Ed. Schlosser, M.), Wiley, 1994, 257, (*synth, use*)

Encyclopaedia of Reagents for Organic Synthesis, (ed. Paquette, L.A.), Wiley, 1995, **2**, 1221, (*synth, use*)

Synthetic Methods of Organometallic and Inorganic Chemistry, (ed. Hermann, W.A.), Thieme, 1996, **1**, 101-103, (*synth*)

Lee, J. *et al.*, *Tet. Lett.*, 1996, **37**, 3663, (*use, cleavage of ethers, carboxylates*)