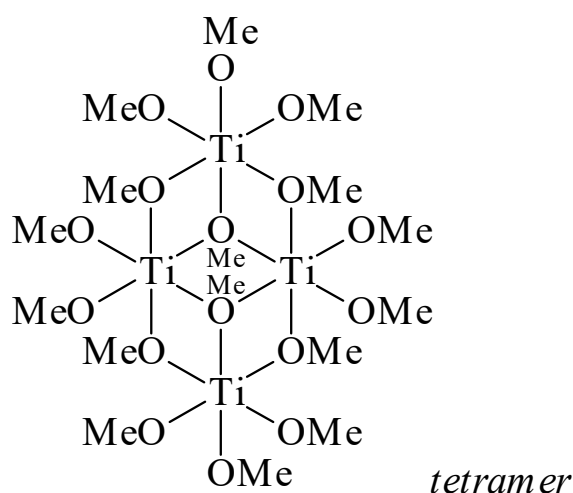




>>Entry Name: Titanium(IV) methoxide (Ti(OMe)₄)

Synonym(s): Methanol, tianium(4+) salt, 9Cl. Titanium tetramethoxide. Tetramethyl titanate. Methyl titanate. Methyl orthotitanate. Tetramethoxytitanium



CAS Registry Number: 992-92-7

Molecular Formula: C₄H₁₂O₄Ti

Molecular Weight: 172.016

Accurate Mass: 172.021507

Percentage Composition: C 27.93%; H 7.03%; O 37.20%; Ti 27.83%

Source/Synthesis: Synth. either by reaction of TiCl₄, MeOH and NH₃ or from Ti[OCH(CH₃)₂]₄ and MeOH

Use/Importance: Used in alkene and ester polym. catalysts with organo-Al compds. and in the formation of TiO₂ thin-film capacitors

Physical Description: Liq., readily hydrol.

Hazard & Toxicity: Fl. p. 48°

Other: Gelest AKT880

>>Derivative: Trimer

CAS Registry Number: 12563-47-2

Molecular Formula: C₁₂H₃₆O₁₂Ti₃

Molecular Weight: 516.049

Accurate Mass: 516.064521

Percentage Composition: C 27.93%; H 7.03%; O 37.20%; Ti 27.83%

Physical Description: Yellow liq.

Other Data: Only indirect soln. evidence exists for this formulation

>>Derivative: Tetramer

Synonym(s): Di-μ₃-methoxytetra-μ-methoxydecamethoxytetratitanium(IV)

Molecular Formula: C₁₆H₄₈O₁₆Ti₄

Molecular Weight: 688.066

Accurate Mass: 688.086028

Percentage Composition: C 27.93%; H 7.03%; O 37.20%; Ti 27.83%

Physical Description: Cryst.

Melting Point: Mp 209-210°

Other Data: Existence confirmed by x-ray diffraction. Ti in octahedral environment

References:

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Deluzarche, A., *Ann. Chim. (Paris)*, 1961, **6**, 661, (*synth, trimer*)
Brini-Fritz, M. *et al.*, *Bull. Soc. Chim. Fr.*, 1961, 535, (*ir, trimer*)
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