



>>Entry Name: Tetraethoxysilane

Synonym(s): Silicic acid (H₄SiO₄) tetraethyl ester, 9Cl. Tetraethyl orthosilicate. Ethyl orthosilicate. Silicon tetraethoxide. Ethyl silicate. Tetraethyl silicate

CAS Registry Number: 78-10-4

Extra CAS Registry Numbers(s): 11099-06-2

Si(OEt)₄

Molecular Formula: C₈H₂₀O₄Si

Molecular Weight: 208.329

Accurate Mass: 208.113087

Percentage Composition: C 46.12%; H 9.68%; O 30.72%; Si 13.48%

Source/Synthesis: Synth. from SiCl₄ + EtOH

Use/Importance: Commercially available. Binding agent; polym. catalyst; efficient catalyst in presence of CsF for Michael addns.

Physical Description: Moisture-sensitive liq.

Boiling Point: Bp 166°

Density: d₄²⁰ 0.933

Refractive Index: n_D²⁰ 1.3820

Hazard & Toxicity: Flammable, fl. p. 46°. Autoignition temp. 260°. LD₅₀ (rat, orl) 6270 mg/kg

Aldrich: 23620-9

Fluka: 86580

Sigma: T3143

Other: Gelest SIT71100

References:

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Ostdick, T. *et al.*, *Inorg. Chem.*, 1967, **6**, 98, (*pmr*)

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