



>>Entry Name: Hexamethyldisiloxane, 9CI

Synonym(s): Oxybis[trimethylsilane]. Bis(trimethylsilyl) ether

CAS Registry Number: 107-46-0

$\text{Me}_3\text{SiOSiMe}_3$

Molecular Formula: $\text{C}_6\text{H}_{18}\text{OSi}_2$

Molecular Weight: 162.379

Accurate Mass: 162.089619

Percentage Composition: C 44.38%; H 11.17%; O 9.85%; Si 34.59%

Source/Synthesis: Synth. from $\text{Me}_3\text{SiCl} + \text{H}_2\text{O}$

Use/Importance: Commercially available. High temp. pmr standard. Reagent for synth. of benzoyl chlorides; silylating agent for conversion of alcohols $\rightarrow$ silyl ethers; silylates carboxylic acids in presence of catalytic H_2SO_4

Physical Description: Liq.

Melting Point: Mp -59°

Boiling Point: Bp 101°

Density: d_4^{20} 0.76

Refractive Index: n_D^{20} 1.3780

Hazard & Toxicity: Highly flammable, fl. p. -2° . Irritant

Aldrich: 46930-0

Fluka: 52630

Sigma: H3762

References:

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Tamas, J. *et al.*, *Magy. Kem. Foly.*, 1969, **75**, 148, (ms)

Harris, R.K. *et al.*, *J. Magn. Reson.*, 1975, **17**, 174, (cmr, Si-29 nmr)

Csakvari, B. *et al.*, *J. Organomet. Chem.*, 1976, **107**, 287, (struct)

Nakano, T. *et al.*, *Chem. Comm.*, 1977, 808, (use)

Pinnick, H.W. *et al.*, *Tet. Lett.*, 1978, 4261, (synth, use)

Matsumoto, H. *et al.*, *Chem. Lett.*, 1980, 1475, (use, silylation of carboxylic acids)

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Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, HEE000