



>>Entry Name: Tetravinylsilane

Synonym(s): Tetraethenylsilane, 9CI

CAS Registry Number: 1112-55-6

$\text{Si}(\text{CH}=\text{CH}_2)_4$

Molecular Formula: $\text{C}_8\text{H}_{12}\text{Si}$

Molecular Weight: 136.268

Accurate Mass: 136.070827

Percentage Composition: C 70.51%; H 8.88%; Si 20.61%

Source/Synthesis: Synth. from SiCl_4 and $\text{H}_2\text{C}=\text{CHMgBr}$

Use/Importance: Comly. available

Physical Description: Moisture-sensitive liq.

Boiling Point: Bp 130.6°

Density: d 0.8

Refractive Index: n_D^{20} 1.4620

Other Data: Undergoes radical polym. Has been used as the central core mol. of a dendritic carbosilane

Aldrich: 31825-6

References:

Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 1992, **3**, 635A, (nmr)

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Rosenberg, S.D. *et al.*, *J.O.C.*, 1957, **22**, 1200, (synth)

Brügel, W. *et al.*, *Z. Elektrochem.*, 1960, **64**, 1121, (pmr)

Chumaevskii, N.A., *CA*, 1961, **55**, 10062g, (ir)

Simek, I., *Chem. Zvesti*, 1963, **17**, 640; *CA*, **60**, 4263a, (polym)

Levy, G.C. *et al.*, *J. Magn. Reson.*, 1972, **8**, 280, (cmr)

Glockling, F. *et al.*, *J.C.S. Dalton*, 1974, 2537, (synth, ir, Raman, ms)

Rustad, S. *et al.*, *J. Mol. Struct.*, 1978, **48**, 381, (gas-phase struct)

Polivanov, A.N. *et al.*, *Zh. Obshch. Khim.*, 1979, **49**, 1311; 1980, **50**, 1783; *J. Gen. Chem. USSR (Engl. Transl.)*, 1979, **49**, 1153; 1980, **50**, 1452, (ms)

Delmulle, L. *et al.*, *J. Mol. Struct.*, 1980, **66**, 309, (pmr, cmr, Si-29 nmr)

Panasenko, A.A. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1981, 1916; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1981, 1581, (cmr, complexes)

Boudin, A. *et al.*, *Organometallics*, 1988, **7**, 1165, (synth)

Zhou, L.L. *et al.*, *Macromolecules*, 1993, **26**, 963, (dendrimer)

Bartkowska, B. *et al.*, *Acta Cryst. C*, 1997, **53**, 1066-1068, (cryst struct)