



>>Entry Name: (3-Aminopropyl)trimethoxysilane

Synonym(s): 3-(Trimethoxysilyl)-1-propanamine, 9CI

CAS Registry Number: 13822-56-5

$(\text{MeO})_3\text{SiCH}_2\text{CH}_2\text{CH}_2\text{NH}_2$

Molecular Formula: $\text{C}_6\text{H}_{17}\text{NO}_3\text{Si}$

Molecular Weight: 179.291

Accurate Mass: 179.097771

Percentage Composition: C 40.20%; H 9.56%; N 7.81%; O 26.77%; Si 15.66%

Source/Synthesis: Synth. from $(\text{MeO})_3\text{SiH}$ and $\text{H}_2\text{C}=\text{CHCH}_2\text{NH}_2$ in presence of H_2PtCl_6

Use/Importance: Coupling agent in filled composites

Physical Description: Liq.

Boiling Point: Bp_{30} 104°

Density: d_4^{25} 1.01

Refractive Index: n_D^{25} 1.4188

Aldrich: 28177-8

Fluka: 9326

Sigma: A1435

>>Derivative: N-Me

CAS Registry Number: 3069-25-8

Molecular Formula: $\text{C}_7\text{H}_{19}\text{NO}_3\text{Si}$

Molecular Weight: 193.318

Accurate Mass: 193.113421

Percentage Composition: C 43.49%; H 9.91%; N 7.25%; O 24.83%; Si 14.53%

Physical Description: Liq.

Boiling Point: Bp_{30} 106°

Density: d_4^{25} 0.98

Refractive Index: n_D^{25} 1.4194

References:

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1654D, (ir)

Fr. Pat., 1970, 1 589 935; *CA*, **74**, 22998, (synth)

Speier, J.L. *et al.*, *J.O.C.*, 1971, **36**, 3120-3126, (N-Me)

U.K. Pat., 1971, 1 238 875; *CA*, **75**, 98670, (synth)

Han, C.D. *et al.*, *Polym. Eng. Sci.*, 1981, **21**, 196; *CA*, **94**, 122479, (use)