



>>Entry Name: **3-(Trimethoxysilyl)-1-propanethiol**, 9CI
Synonym(s): (3-Mercaptopropyl)trimethoxysilane. Prosil 196

CAS Registry Number: 4420-74-0
HSCH2CH2CH2Si(OMe)3

Molecular Formula: $C_6H_{16}O_3SSi$

Molecular Weight: 196.342

Accurate Mass: 196.058942

Percentage Composition: C 36.70%; H 8.21%; O 24.45%; S 16.33%; Si 14.30%

Source/Synthesis: Synth. from $Cl(CH_2)_3Si(OMe)_3$, NH_3 and H_2S at 100°

Use/Importance: Comly. available; coupling agent in plastic and rubber manuf.; metal coating agent

Physical Description: Moisture-sensitive liq. with strong odour

Boiling Point: Bp 198° . Bp₁₀ $93-94^\circ$

Density: d_4^{25} 1.015

Refractive Index: n_D^{25} 1.4412

Hazard & Toxicity: Skin irritant. LD₅₀ (rat, orl) 2940 mg/kg

Aldrich: 17561-7

Fluka: 63800

Sigma: M1521

References:

Aldrich Library of ^{13}C and 1H FT NMR Spectra, 1992, **3**, 676B, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1091B, (*ir*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1652A, (*ir*)

U.K. Pat., 1968, 1 102 251; *CA*, **69**, 3802y, (*synth, use*)

Bittell, J.E. *et al.*, *J.O.C.*, 1978, **43**, 1687, (*synth, pmr*)

Buder, W., *Z. Naturforsch., B*, 1979, **34**, 790, (*synth, ir*)

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