



>>Entry Name: Trimethylsilyl trifluoroacetate

Synonym(s): Trifluoroacetic acid trimethylsilyl ester, 12Cl. Trimethyl(trifluoroacetoxy)silane

CAS Registry Number: 400-53-3

$\text{F}_3\text{CCOOSiMe}_3$

Molecular Formula: $\text{C}_5\text{H}_9\text{F}_3\text{O}_2\text{Si}$

Molecular Weight: 186.206

Accurate Mass: 186.032391

Percentage Composition: C 32.25%; H 4.87%; F 30.61%; O 17.18%; Si 15.08%

Source/Synthesis: Synth. from Me_3SiCl + F_3CCOOH

Use/Importance: Commercially available. Undergoes Wittig reaction with $\text{RCH=PPh}_3 \rightarrow$ trifluoromethyl ketones

Physical Description: Liq.

Boiling Point: Bp 90.2°

Density: d_4^{20} 1.07

Refractive Index: n_D^{20} 1.3380

Aldrich: 23509-1

Fluka: 91733

References:

Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 1992, **3**, 689B, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1112D, (*ir*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1660B, (*ir*)

Anderson, H.H. *et al.*, *J.O.C.*, 1954, **19**, 1296, (*synth*)

Wang, C.S. *et al.*, *Inorg. Chem.*, 1970, **9**, 90, (*synth, ir, ms, pmr, F-19 nmr*)

Begue, J.P. *et al.*, *J. Fluorine Chem.*, 1988, **39**, 271, (*reaction*)