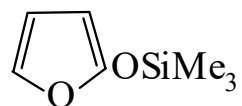




>>Entry Name: 2-(Trimethylsilyloxy)furan

Synonym(s): (2-Furanyloxy)trimethylsilane, 10CI



CAS Registry Number: 61550-02-5

Molecular Formula: C₇H₁₂O₂Si

Molecular Weight: 156.256

Accurate Mass: 156.060657

Percentage Composition: C 53.81%; H 7.74%; O 20.48%; Si 17.97%

Source/Synthesis: Synth. from 3-penten-4-olide + Me₃SiCl in Et₃N

Use/Importance: Reagent for diastereoselective aldol condensations with aldehydes, in presence of a Lewis acid or F⁽⁻⁾ catalyst, to give δ-hydroxy-α,β-unsatd. γ-lactones; diastereoselection depends on catalyst used

Physical Description: Liq.

Boiling Point: Bp_{9,5} 34-35° (lit. gives a pressure range)

Aldrich: 30806-4

Fluka: 92739

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **3**, 713B, (*nmr*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1670D, (*ir*)

Yoshii, E. *et al.*, *Heterocycles*, 1976, **4**, 1663, (*synth*)

Asaoka, M. *et al.*, *Chem. Lett.*, 1977, 167, (*synth*)

Asaoka, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 1953, (*props*)

Jefford, C.W. *et al.*, *Tet. Lett.*, 1987, **28**, 4037, (*use, aldol condensation*)

Casiraghi, G. *et al.*, *Tetrahedron*, 1990, **46**, 5804, (*use*)

Stuart, J.G. *et al.*, *Heterocycles*, 1991, **32**, 949, (*use*)