



>>Entry Name: Tetrahydro-2,5-dimethoxyfuran

Synonym(s): 2,5-Dimethoxytetrahydrofuran



CAS Registry Number: 696-59-3

Related CAS Registry Numbers(s): 13269-49-3 58693-20-2 117020-17-4 117020-18-5

Molecular Formula: C₆H₁₂O₃

Molecular Weight: 132.159

Accurate Mass: 132.078645

Percentage Composition: C 54.53%; H 9.15%; O 36.32%

Use/Importance: Reagent for pyrrole synth. Used as a soln. in 1,2-dichloroethane for photometric detn. of NH₃ ($\lambda_{\max}$ 630 nm, ϵ 45200)

Physical Description: Liq.

Solubility: Misc. EtOH, C₆H₆, Me₂CO, Et₂O

Aldrich: D13710-3

Fluka: 38821

>>Variant: (2*RS*,5*RS*)-form

Synonym(s): ($\pm$)-*trans*-form

CAS Registry Number: 130321-68-5

Molecular Formula: C₆H₁₂O₃

Molecular Weight: 132.159

Accurate Mass: 132.078645

Percentage Composition: C 54.53%; H 9.15%; O 36.32%

Boiling Point: Bp 147°

Refractive Index: n_D^{20} 1.4148

>>Variant: (2*RS*,5*SR*)-form

Synonym(s): *cis*-form

CAS Registry Number: 13269-48-2

Molecular Formula: C₆H₁₂O₃

Molecular Weight: 132.159

Accurate Mass: 132.078645

Percentage Composition: C 54.53%; H 9.15%; O 36.32%

Boiling Point: Bp 144°

Refractive Index: n_D^{20} 1.4158

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 386B, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 239D, (*ir*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 316B, (*ir*)

Nielsen, J.T. *et al.*, *Acta Chem. Scand.*, 1958, **12**, 63, (*synth*)

Bazilevskaya, G.I. *et al.*, *CA*, 1958, **52**, 18486g; 1959, **53**, 424a, (*synth*)

East Ger. Pat., 1963, 25 656; *CA*, **60**, 10650e, (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 144

Gagnaire, D. *et al.*, *Bull. Soc. Chim. Fr.*, 1972, 873, (*pmr, conformn*)

Gross, R.L. *et al.*, *CA*, 1978, **89**, 168791y, (*detn, NH₃*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DON800