



>>Entry Name: 1,1-Dimethoxy-*N,N*-dimethylmethanamine

Synonym(s): 1,1-Dimethoxy-*N,N*-dimethylmethanamine, gCl. 1,1-Dimethoxytrimethylamine. *N,N*-Dimethylformamide dimethyl acetal

CAS Registry Number: 4637-24-5

Type of Compound Code(s): PG5400 PG5300 PG5250 PS7600

(MeO)₂CHNMe₂

Molecular Formula: C₅H₁₃NO₂

Molecular Weight: 119.163

Accurate Mass: 119.094629

Percentage Composition: C 50.40%; H 11.00%; N 11.75%; O 26.85%

Use/Importance: Widely used versatile reagent, which functions as a methylating agent, converts diols to alkenes or epoxides and also effects the rearrangement of allylic alcohols to β,γ-unsaturated amides. Derivatisation reagent for carboxylic acids, amino acids and amines for gc anal.

Boiling Point: Bp₇₂₀ 102-103°

Aldrich: 14073-2

Fluka: 40271

Sigma: D4012

References:

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Arnold, Z. *et al.*, *Coll. Czech. Chem. Comm.*, 1964, **29**, 645, (*synth*)
Bredereck, H. *et al.*, *Chem. Ber.*, 1968, **101**, 41-50, (*synth*)
Thenot, J.-P. *et al.*, *Anal. Lett.*, 1972, **5**, 217-223; 519-529, (*use*)
Horman, I. *et al.*, *Biomed. Mass Spectrom.*, 1974, **1**, 115, (*use*)
Pelter, A. *et al.*, *Synthesis*, 1978, 843, (*use*)
Ponticello, G.S. *et al.*, *J.O.C.*, 1979, **44**, 4003-4005, (*use*)
Lin, Y.-i. *et al.*, *J.O.C.*, 1979, **44**, 4160-4164, (*use*)
Gammill, R.B., *Synthesis*, 1979, 901-903, (*use*)
Abdulla, R.F. *et al.*, *Tetrahedron*, 1979, **35**, 1675-1735, (*formamide acetals, rev*)
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