



>>Entry Name: **1,10-Decanediol**, 9CI

Synonym(s): Decamethylene glycol

CAS Registry Number: 112-47-0

HOCH₂(CH₂)₈CH₂OH

Molecular Formula: C₁₀H₂₂O₂

Molecular Weight: 174.283

Accurate Mass: 174.16198

Percentage Composition: C 68.92%; H 12.72%; O 18.36%

Use/Importance: Comonomer for polyesters and polyurethanes

Melting Point: Mp 72-74°

Boiling Point: Bp₈ 170°

Hazard & Toxicity: Fl. p. >121°

Aldrich: D120-3

Fluka: 30580

>>Derivative: Di-Et ether

Synonym(s): 1,2-Diethoxydecane

Molecular Formula: C₁₄H₃₀O₂

Molecular Weight: 230.39

Accurate Mass: 230.22458

Percentage Composition: C 72.99%; H 13.12%; O 13.89%

Boiling Point: Bp 257-260°

>>Derivative: Cyclic carbonate

Synonym(s): 1,3-Dioxacyclotridecan-2-one, 9CI

CAS Registry Number: 67990-00-5

Molecular Formula: C₁₁H₂₀O₃

Molecular Weight: 200.277

Accurate Mass: 200.141245

Percentage Composition: C 65.97%; H 10.07%; O 23.97%

Melting Point: Mp 55°

>>Derivative: Bis-*N*-phenylcarbamate

Physical Description: Cryst. (CCl₄)

Melting Point: Mp 163-166.5°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 205C, (*nmr*)

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Batzer, H., *Makromol. Chem.*, 1950, **5**, 5-82, (*polyesters*)

Colonge, J. *et al.*, *Bull. Soc. Chim. Fr.*, 1959, 1248-1251, (*synth*)

Machtlinger, D., *Bull. Soc. Chim. Fr.*, 1961, 1341-1344, (*synth*)

Kraevskii, A.A. *et al.*, *J. Org. Chem. USSR (Engl. Transl.)*, 1966, **2**, 628-629, (*synth*)

Diamond, M. *et al.*, *J. Am. Oil Chem. Soc.*, 1967, **44**, 656-658, (*synth*)

Saotome, K. *et al.*, *J. Polym. Sci., Part A-1*, 1967, **5**, 119-126, (*polyurethanes*)

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