



Molecular Formula: C₁₆H₃₄O₅
Molecular Weight: 306.442
Accurate Mass: 306.240625
Percentage Composition: C 62.71%; H 11.18%; O 26.11%
Melting Point: Mp -2°
Boiling Point: Bp_{0.005} 149.5-150.5°. Bp₂ 201-202°
Density: d₄²⁶ 0.9677
Refractive Index: n_D²⁰ 1.4491

>>Derivative: Monodecyl ether

Synonym(s): 3,6,9,12-Tetraoxadocosan-1-ol, 9CI

CAS Registry Number: 5703-94-6

Molecular Formula: C₁₈H₃₈O₅

Molecular Weight: 334.495

Accurate Mass: 334.271925

Percentage Composition: C 64.63%; H 11.45%; O 23.92%

Boiling Point: Bp_{0.03} 155-165°

>>Derivative: Monododecyl ether

Synonym(s): 3,6,9,12-Tetraoxatetracosan-1-ol, 9CI

CAS Registry Number: 5274-68-0

Molecular Formula: C₂₀H₄₂O₅

Molecular Weight: 362.549

Accurate Mass: 362.303225

Percentage Composition: C 66.26%; H 11.68%; O 22.07%

Use/Importance: Nonionic surfactant

Melting Point: Mp 19.6-19.9°

Boiling Point: Bp_{0.2} 184-185°

Refractive Index: n_D²⁰ 1.4527

References:

- Aldrich Library of FT-IR Spectra, 1st edn.*, 1985, **1**, 207C; 226C, (ir)
Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 325C; 346A, (nmr)
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 272B; 298B, (ir)
Hill, J.W. *et al.*, *J.A.C.S.*, 1933, **55**, 5031, (synth)
Schmitz, J.V. *et al.*, *J.A.C.S.*, 1955, **77**, 194, (synth, methacrylate)
Chakhovskoy, N. *et al.*, *Bull. Soc. Chim. Belg.*, 1956, **65**, 453-473, (monoocetyl ether)
U.K. Pat., 1958, 793 047; *CA*, **53**, 225g, (synth, acrylate)
Ziegler, M. *et al.*, *Fresenius' Z. Anal. Chem.*, 1963, **197**, 354, (detn, Pd)
Dale, J. *et al.*, *Acta Chem. Scand.*, 1972, **26**, 1471, (ditosyl)
Ribeito, A.A. *et al.*, *J. Phys. Chem.*, 1977, **81**, 957, (cmr)
Gibson, T. *et al.*, *J.O.C.*, 1980, **45**, 1095-1098, (monodecyl ether)
Mathias, L.J. *et al.*, *ACS Symp. Ser.*, 1982, **195**, 139, (synth, polym, divinyl ether)
Bayer, E. *et al.*, *Chem. Ber.*, 1984, **117**, 1994, (synth, ir, pmr, divinyl ether)
Stibor, I. *et al.*, *Coll. Czech. Chem. Comm.*, 1987, **52**, 2057, (ditosyl)
Kirk-Othmer Encycl. Chem. Technol., 4th edn., Wiley, 1991, **12**, 695, (rev)
Daoud, N.N. *et al.*, *Biomed. Lett.*, 1992, **47**, 325, (isol, deriv)
Marquis, D. *et al.*, *J.O.C.*, 1995, **60**, 7984, (ditosyl, synth, pmr)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PBO250; TCE250; PBO500