



>>Entry Name: Tris[(2-hydroxyethoxy)ethyl]amine

Synonym(s): 2,2',2''-[Nitrilotris(2,1-ethanediylloxy)]trisethanol, 9Cl. Tris(3,6-dioxaheptyl)amine

CAS Registry Number: 54384-48-4

(HOCH₂CH₂OCH₂CH₂)₃N

Molecular Formula: C₁₂H₂₇NO₆

Molecular Weight: 281.348

Accurate Mass: 281.183839

Percentage Composition: C 51.23%; H 9.67%; N 4.98%; O 34.12%

Use/Importance: Phase-transfer catalyst. Alternative to toxic crown ethers

Boiling Point: Bp_{0.5} 160°

Other Data: Comly. available

>>Derivative: Tri-Me ether

Synonym(s): 2-(2-Methoxyethoxy)-*N,N*-bis[2-(2-methoxyethoxy)ethyl]ethanamine, 9Cl. Tris(2-methoxyethoxyethyl)amine. Tris(3,6-dioxaheptyl)amine

CAS Registry Number: 70384-51-9

Molecular Formula: C₁₅H₃₃NO₆

Molecular Weight: 323.429

Accurate Mass: 323.230789

Percentage Composition: C 55.70%; H 10.28%; N 4.33%; O 29.68%

Use/Importance: Inexpensive nontoxic non-cation specific phase-transfer catalyst with advantages over crown ethers

Boiling Point: Bp_{0.5} 160°

Aldrich: 30124-8

Fluka: 93373

References:

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 417C, (*ir*)

Soula, G., *J.O.C.*, 1985, **50**, 3717, (*synth, use*)

Bartsch, R.A. *et al.*, *Synth. Commun.*, 1986, **16**, 1777, (*use*)

McKillop, A. *et al.*, *Synth. Commun.*, 1987, **17**, 647, (*use*)

Bose, A.K. *et al.*, *Tet. Lett.*, 1987, **28**, 2503, (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1988, **13**, 336; **14**, 341; **15**, 356; **16**, 373