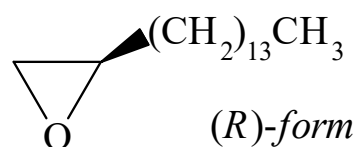




>>Entry Name: Tetradecyloxirane, 9CI

Synonym(s): 1,2-Epoxyhexadecane, 8CI. 1-Hexadecene oxide. Vikolox 16



CAS Registry Number: 7320-37-8

Related CAS Registry Numbers(s): 82722-22-3

Molecular Formula: C₁₆H₃₂O

Molecular Weight: 240.428

Accurate Mass: 240.245315

Percentage Composition: C 79.93%; H 13.41%; O 6.65%

Use/Importance: Lubricant

Aldrich: 26021-5

>>Variant: (R)-form

CAS Registry Number: 69097-51-4

Molecular Formula: C₁₆H₃₂O

Molecular Weight: 240.428

Accurate Mass: 240.245315

Percentage Composition: C 79.93%; H 13.41%; O 6.65%

Melting Point: Mp 19°

Optical Rotation: $[\alpha]_D^{25} +9.64$ (c, 3.71 in hexane) (100% ee)

>>Variant: (±)-form

Molecular Formula: C₁₆H₃₂O

Molecular Weight: 240.428

Accurate Mass: 240.245315

Percentage Composition: C 79.93%; H 13.41%; O 6.65%

Melting Point: Mp 23.7-24.5°

Boiling Point: Bp₁₂ 175-180°

Density: d 0.85

Refractive Index: n_D²⁰ 1.4460

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 366C, (nmr)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 230D, (ir)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 303C, (ir)

Parfenov, E.A. *et al.*, *Zh. Prikl. Khim. (Leningrad)*, 1968, **4**, 2517; *CA*, **70**, 77674, (synth)

Pliev, T.N. *et al.*, *Izv. Vyssh. Uchebn. Zaved., Khim. Khim. Tekhnol.*, 1977, **20**, 31; *CA*, **87**, 21734d, (ir)

Ohta, H. *et al.*, *Chem. Comm.*, 1978, 849, (R-form, synth)

Ohta, H. *et al.*, *Agric. Biol. Chem.*, 1979, **43**, 2099, (synth)

Tulloch, A.P., *Chem. Phys. Lipids*, 1982, **30**, 325, (synth)

Nyquist, R.A., *Appl. Spectrosc.*, 1986, **40**, 275, (ir)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, EBX500