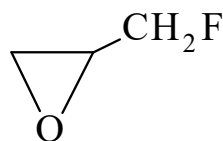




>>Entry Name: (Fluoromethyl)oxirane, 9CI

Synonym(s): 1,2-Epoxy-3-fluoropropane, 8CI. Epifluorohydrin



CAS Registry Number: 503-09-3

Related CAS Registry Numbers(s): 83398-56-5 130796-94-0

Molecular Formula: C₃H₅FO

Molecular Weight: 76.07

Accurate Mass: 76.032443

Percentage Composition: C 47.37%; H 6.62%; F 24.97%; O 21.03%

Aldrich: E110-1

Sigma: E8503

>>Variant: (±)-form

CAS Registry Number: 103129-23-3

Molecular Formula: C₃H₅FO

Molecular Weight: 76.07

Accurate Mass: 76.032443

Percentage Composition: C 47.37%; H 6.62%; F 24.97%; O 21.03%

Physical Description: Liq.

Boiling Point: Bp 84-85°

Density: d₄²⁰ 1.067

Refractive Index: n_D²⁵ 1.3679

Other Data: (R)-form also known, no phys. props. reported. Has been polym. using an FeCl₃ complex catalyst

Hazard & Toxicity: Fl. p. 4°. Lachrymator, corrosive

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 369A, (nmr)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 231C, (ir)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 304B, (ir)

Sigma-Aldrich Library of Chemical Safety Data, 1st Ed., 854C, (haz)

McBee, E.T. *et al.*, *J.A.C.S.*, 1952, **74**, 3022, (synth)

Pattison, F.L.M. *et al.*, *J.A.C.S.*, 1957, **79**, 2311, (synth)

Ichida, S., *Bull. Chem. Soc. Jpn.*, 1960, **33**, 727, (polym)

Thomas, W.A., *J.C.S.(B)*, 1968, 1187, (pmr, conformn)

MacDonald, C.J. *et al.*, *Can. J. Chem.*, 1970, **48**, 1046, (pmr, bibl)

Charles, S.W. *et al.*, *J. Mol. Struct.*, 1974, **20**, 83, (ir, conformn)

Fujiwara, F.G. *et al.*, *J. Mol. Struct.*, 1977, **41**, 169, (bibl, microwave)

Shapiro, M., *J.O.C.*, 1977, **42**, 1434, (cmr, conformn)

Kalasinsky, V.F. *et al.*, *J. Raman Spectrosc.*, 1980, **9**, 45, (ir, Raman)

Martin, J.C. *et al.*, *J.O.C.*, 1982, **47**, 3531, (R-form)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, EBU000