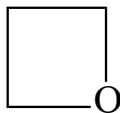




>>Entry Name: Oxetane, 9CI

Synonym(s): Trimethylene oxide. Oxacyclobutane



CAS Registry Number: 503-30-0

Molecular Formula: C₃H₆O

Molecular Weight: 58.08

Accurate Mass: 58.041865

Percentage Composition: C 62.04%; H 10.41%; O 27.55%

Use/Importance: Reacts with Grignard reagents or PhLi to give primary alcohols

Physical Description: Liq. with pleasant aromatic odour

Boiling Point: Bp 47.5-47.9°

Solubility: Sol. H₂O

Density: d₄²⁰ 0.9001

Refractive Index: n_D²⁵ 1.3897

Hazard & Toxicity: High conc. prob. narcotic. LD₅₀ (rat, scu) 500 mg/kg

Aldrich: T7620-1

Fluka: 92459

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 237D, (ir)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 313A, (ir)

Aldrich Library of NMR Spectra, 2nd edn., 1983, **1**, 199C, (nmr)

Allen, J.S., *J.A.C.S.*, 1934, **56**, 1399, (synth)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 1232

Ewing, D.F. *et al.*, *Org. Magn. Reson.*, 1975, **7**, 554, (pmr)

Briggs, J., *Tet. Lett.*, 1975, 4285, (synth)

Bowen, R.D. *et al.*, *Org. Mass Spectrom.*, 1981, **16**, 159, (ms)

Lambert, J.B. *et al.*, *J.O.C.*, 1983, **48**, 3982, (cmr)

Wieser, H. *et al.*, *Spectrochim. Acta A*, 1983, **39**, 173, (ir, Raman)

Dale, J. *et al.*, *Acta Chem. Scand.*, 1991, **45**, 82, (synth)

Esteban, A.I. *et al.*, *Mol. Phys.*, 1992, **77**, 17, (struct)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, OMW000