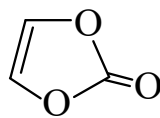




>>Entry Name: **1,3-Dioxol-2-one**, 9CI

Synonym(s): Carbonic acid cyclic vinylene ester, 8CI. Vinylene carbonate



CAS Registry Number: 872-36-6

Molecular Formula: C₃H₂O₃

Molecular Weight: 86.047

Accurate Mass: 86.000395

Percentage Composition: C 41.88%; H 2.34%; O 55.78%

Use/Importance: Polymer intermed. Used in synth. of Citreoviral [CKC84-X](#)

Physical Description: Liq.

Melting Point: Mp 22°

Boiling Point: Bp 162°. Bp₃₂ 73-74°

Density: d₄²⁵ 1.35

Refractive Index: n_D²⁵ 1.4218

Hazard & Toxicity: Exp. neoplastic agent

Aldrich: V260-7

Fluka: 94965

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 933A, (nmr)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 644A, (ir)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 688C, (ir)

Newman, M.S. *et al.*, *J.A.C.S.*, 1953, **75**, 1263; 1955, **77**, 3789, (ir, synth, use)

Field, N.D., *J. Polym. Sci.*, 1962, **58**, 533, (synth, bibl, use)

McLauchlan, K.A. *et al.*, *Can. J. Chem.*, 1966, **44**, 321, (pmr, cmr)

Durig, J.R. *et al.*, *J. Mol. Struct.*, 1970, **5**, 67, (ir, Raman)

Cser, F., *Acta Chim. Acad. Sci. Hung.*, 1974, **80**, 49, (cryst struct)

Breitbeil, F.W. *et al.*, *J.O.C.*, 1982, **47**, 702, (ms)

Shizuri, Y. *et al.*, *Chem. Comm.*, 1985, 292, (use)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1986, **12**, 206; 1988, **13**, 342, (use)

Wulff, G. *et al.*, *Chem. Ber.*, 1992, **125**, 473, (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, VOK000