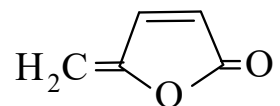




>>Entry Name: 5-Methylene-2(5*H*)-furanone, 9CI

Synonym(s): Protoanemonin. Isomycin



CAS Registry Number: 108-28-1

Molecular Formula: C₅H₄O₂

Molecular Weight: 96.085

Accurate Mass: 96.02113

Percentage Composition: C 62.50%; H 4.20%; O 33.30%

Biological Source: Present in Ranunculaceae e.g. *Ranunculus japonicus*, *Ranunculus acer*, *Ranunculus bulbosus*, *Clematis* spp., *Anemone pulsatilla*

Use/Importance: Antibiotic, antibacterial agent, antimicrobial agent

Physical Description: Pale yellow oil

Boiling Point: Bp_{1.5} 45°

Solubility: BERDY SOL: Sol. CHCl₃; fairly sol. H₂O

Calculated Log P Data: Log P –0.04 (uncertain value) (calc)

Other Data: Steam-volatile. Rapidly dimerises in air to Anemonin [DFP09-T](#). The Bp reported by Alibés *et al* appears to be defective (pressure omitted)

Hazard & Toxicity: Vesicant ; BERDY HAZD : LD₅₀ (mus, ipr) 190 mg/kg

References:

- Shaw, E., *J.A.C.S.*, 1946, **68**, 2510, (*synth*)
Grundmann, C. *et al.*, *J.A.C.S.*, 1955, **77**, 2332, (*synth*)
U.K. Pat., 1957, 759 999; *CA*, **51**, 9678, (*synth*)
Ruijgrok, H.W.L., *Planta Med.*, 1963, **11**, 338, (*occur*)
Suga, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 1584, (*biosynth*)
Yamamoto, M. *et al.*, *Chem. Comm.*, 1988, 560, (*synth*)
Alibés, R. *et al.*, *Synth. Commun.*, 1990, **20**, 2607, (*synth*, *pmr*)
Southwell, I.A. *et al.*, *Phytochemistry*, 1993, **33**, 1099, (*isol*, *pmr*, *cmr*, *bibl*)