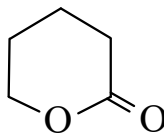




>>Entry Name: Tetrahydro-2H-pyran-2-one, 9CI

Synonym(s): δ -Valerolactone. Tetrahydro- α -pyrone. Tetrahydrocoumalin. 5-Hydroxypentanoic acid δ -lactone



CAS Registry Number: 542-28-9

Molecular Formula: C₅H₈O₂

Molecular Weight: 100.117

Accurate Mass: 100.05243

Percentage Composition: C 59.98%; H 8.05%; O 31.96%

Biological Source: Present in various plant spp.

Physical Description: Oil, solidif. on cooling

Melting Point: Mp -12.5°

Boiling Point: Bp 218-220°. Bp₄ 88°. Bp_{0.5} 58-60°

Other Data: Readily polymerises on standing to several high-MW polymers

Aldrich: 38957-9

Fluka: 94585

>>Derivative: Oxime (Z-)

CAS Registry Number: 74197-92-5

Molecular Formula: C₅H₉NO₂

Molecular Weight: 115.132

Accurate Mass: 115.063329

Percentage Composition: C 52.16%; H 7.88%; N 12.17%; O 27.79%

Melting Point: Mp 106-107°

References:

- Aldrich Library of FT-IR Spectra, 1st edn.*, 1985, **1**, 704D, (*ir*)
Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 1152A, (*nmr*)
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 755A, (*ir*)
Linstead, R.P. *et al.*, *J.C.S.*, 1933, 580, (*synth*)
Coffmann, D.D., *J.A.C.S.*, 1935, **57**, 1981, (*synth*)
Friess, S.L., *J.A.C.S.*, 1949, **71**, 2571, (*synth*)
Closson, W.D. *et al.*, *J.O.C.*, 1967, **32**, 3160, (*uv*)
Nikishin, G.I. *et al.*, *J.C.S. Perkin 2*, 1983, 595, (*synth*)
Lambert, J.B. *et al.*, *J.O.C.*, 1983, **48**, 3982, (*cmr*)
Ohya, K. *et al.*, *Org. Mass Spectrom.*, 1983, **18**, 27, (*ms*)
Boykin, D.W. *et al.*, *Heterocycles*, 1989, **29**, 301, (*O-17 nmr*)