



>>Entry Name: 2,4-Cyclopentadien-1-yl lithium, 9Cl, 8Cl

Synonym(s): Lithium cyclopentadienide



CAS Registry Number: 16733-97-4

Molecular Formula: C_5H_5Li

Molecular Weight: 72.035

Accurate Mass: 72.055128

Percentage Composition: C 83.37%; H 7.00%; Li 9.64%

General Statement: Multidecker struct. in the solid state with each metal atom linearly coord. by two η^5 -bonded Cp rings

Source/Synthesis: Pref. synth. from cyclopentadiene and BuLi

Physical Description: White solid

Solubility: Spar. sol. Et_2O ; sol. THF, liq. NH_3

Aldrich: 30334-8

Fluka: 29674

>>Derivative: 12-Crown-4-complex

CAS Registry Number: 133700-06-8

Molecular Formula: $C_{13}H_{21}LiO_4$

Molecular Weight: 248.247

Accurate Mass: 248.159988

Percentage Composition: C 62.90%; H 8.53%; Li 2.80%; O 25.78%

Physical Description: Colourless orthorhombic cryst. (THF)

Melting Point: Mp 180 dec.°

References:

- Wagner, B.O. *et al.*, *Tetrahedron*, 1970, **26**, 5155, (*synth, uv*)
Ford, W.T., *J. Organomet. Chem.*, 1971, **32**, 27, (*ir, uv, pmr*)
Cox, R.H. *et al.*, *J.A.C.S.*, 1971, **93**, 3297, (*pmr*)
Fischer, P. *et al.*, *J. Organomet. Chem.*, 1976, **116**, 65, (*cmr*)
Breslow, R. *et al.*, *J.A.C.S.*, 1980, **102**, 5741, (*cmr*)
Garbuzova, I.A. *et al.*, *J. Organomet. Chem.*, 1985, **279**, 327, (*ir, Raman*)
Garkusha, O.G. *et al.*, *J. Organomet. Chem.*, 1987, **336**, 13, (*ir*)
Beachley, O.T. *et al.*, *Organometallics*, 1988, **7**, 1051, (*synth, ir*)
Den Besten, R. *et al.*, *J. Organomet. Chem.*, 1990, **385**, 153, (*props*)
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