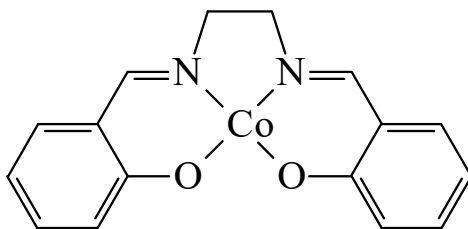




>>Entry Name: [N,N'-Ethylenebis(salicylideneiminato)]cobalt

Synonym(s): [[2,2'-(1,2-Ethanediy)lbis[nitrilomethylidyne]]bis[phenolato]](2-)-N,N',O,O']cobalt, 10Cl, 9Cl. [[α,α' -(Ethylenedinitrilo)di-*o*-cresolato](2-)]cobalt, 8Cl. Salcomine



CAS Registry Number: 14167-18-1

Molecular Formula: C₁₆H₁₄CoN₂O₂

Molecular Weight: 325.232

Accurate Mass: 325.038726

Percentage Composition: C 59.09%; H 4.34%; Co 18.12%; N 8.61%; O 9.84%

Use/Importance: Autoxidn. catalyst. Binds ½O₂ reversibly, turning black. Oxygen desorbed at 100° *in vacuo*. Used as a 0.3% soln. in 1,2-dichlorobenzene as collector for NO and NO₂. Subject to redox and solvation studies, with reference to oxygenation of org. molecules

Physical Description: Red cryst. (DMF); maroon cryst. + C₆H₆ (C₆H₆)

Solubility: Sol. C₆H₆, CHCl₃, Py, DMF

Other Data: Needs to be desolvated before oxygen taken up. Also obt. as inactive red form

Aldrich: 27471-2

Fluka: 15157

References:

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West, B.O. *et al.*, *J. Organomet. Chem.*, 1974, **64**, 125, (*synth*)
McAllister, R.M. *et al.*, *J. Organomet. Chem.*, 1974, **77**, 91, (*synth*)
Nishinaga, A., *Chem. Lett.*, 1975, 273, (*use*)
Aymes, D. *et al.*, *Bull. Soc. Chim. Fr.*, 1976, 1717, (*synth*)
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Ishii, K. *et al.*, *Anal. Chem.*, 1983, **55**, 604, (*collector, NO, NO₂*)
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