



>>Entry Name: Trimethylphosphine oxide, 9Cl, 8Cl

CAS Registry Number: 676-96-0

$\text{Me}_3\text{P}=\text{O}$

Molecular Formula: $\text{C}_3\text{H}_9\text{OP}$

Molecular Weight: 92.077

Accurate Mass: 92.039102

Percentage Composition: C 39.13%; H 9.85%; O 17.38%; P 33.64%

Use/Importance: Ligand for metals of Group IIB, and many from Groups IIIA, IVA, IB, and VIII, and additionally U, Np, and Pu

Physical Description: Solid

Melting Point: Mp 140°

pKa Value: $\text{p}K_{\text{a}}$ 8.7 (MeNO_2)

References:

- Fenton, G.W. *et al.*, *J.C.S.*, 1929, 2342, (*synth*)
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Hunter, S.H. *et al.*, *J.C.S.(A)*, 1968, 305, (*ir, complexes*)
Seel, F. *et al.*, *Chem. Ber.*, 1972, **105**, 406, (*synth*)
Choplin, F. *et al.*, *J. Mol. Struct.*, 1972, **11**, 381, (*struct*)
Schmidbauer, H. *et al.*, *Chem. Ber.*, 1973, **106**, 1251, (*cmr, P-31 nmr, pmr*)
Bula, M.J. *et al.*, *Can. J. Chem.*, 1975, **53**, 326, (*adducts*)
Perry, W.B. *et al.*, *J.A.C.S.*, 1975, **97**, 4899, (*pe*)
Wilkins, C.J. *et al.*, *J.A.C.S.*, 1975, **97**, 6352, (*ed*)
Elbel, S. *et al.*, *J.C.S. Dalton*, 1976, 1757, (*pe*)
Rojhantalab, H. *et al.*, *Spectrochim. Acta A*, 1976, **32**, 519, (*Raman*)
Bollinger, J.C. *et al.*, *Spectrochim. Acta A*, 1985, **41**, 399, (*ir*)
Engelhardt, L.M. *et al.*, *Aust. J. Chem.*, 1986, **39**, 2151, (*cryst struct*)
Quin, L.D. *et al.*, *Magn. Reson. Chem.*, 1987, **25**, 271, (*O-17 nmr*)