



>>Entry Name: Tris(3-methylphenyl)phosphine, 9Cl

Synonym(s): Tri-*m*-tolylphosphine, 8Cl

CAS Registry Number: 6224-63-1

Molecular Formula: C<sub>21</sub>H<sub>21</sub>P

Molecular Weight: 304.371

Accurate Mass: 304.138087

Percentage Composition: C 82.87%; H 6.95%; P 10.18%

Use/Importance: Ligand for metals of groups IB, IIB, VIB, VIIB, and VIII

Physical Description: Cryst. (EtOH)

Melting Point: Mp 100°

pKa Value: pK<sub>a</sub> 3.3 (MeNO<sub>2</sub>)

Aldrich: 28784-9

Fluka: 93413

>>Derivative: Oxide

CAS Registry Number: 6151-88-8

Molecular Formula: C<sub>21</sub>H<sub>21</sub>OP

Molecular Weight: 320.37

Accurate Mass: 320.133002

Percentage Composition: C 78.73%; H 6.61%; O 4.99%; P 9.67%

Physical Description: Cryst. (petrol)

Melting Point: Mp 111°

>>Derivative: Sulfide

CAS Registry Number: 6163-62-8

Molecular Formula: C<sub>21</sub>H<sub>21</sub>PS

Molecular Weight: 336.437

Accurate Mass: 336.110157

Percentage Composition: C 74.97%; H 6.29%; P 9.21%; S 9.53%

Physical Description: Cryst.

Melting Point: Mp 156°

#### References:

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Mann, F.G. *et al.*, *J.C.S.*, 1937, 527, (*synth*)

Schindlbauer, H., *Monatsh. Chem.*, 1965, **96**, 1793, (*uv*)

Pinnell, R.P. *et al.*, *J.A.C.S.*, 1973, **95**, 977, (*nmr, selenide*)

Grindley, T.B. *et al.*, *Aust. J. Chem.*, 1975, **28**, 327, (*ir, oxide*)

Weiner, M.A. *et al.*, *J.O.C.*, 1975, **40**, 1292, (*pe*)

Spalding, T.R., *Org. Mass Spectrom.*, 1976, **11**, 1019, (*ms*)

Grim, S.O. *et al.*, *J.O.C.*, 1977, **42**, 1236

Grim, S.O. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1977, **3**, 191, (*P-31 nmr*)

Cameron, T.S. *et al.*, *Acta Cryst. B*, 1978, **34**, 1639, (*cryst struct, phosphine, oxide, sulfide*)

Goncharova, L.V. *et al.*, *Zh. Obshch. Khim.*, 1981, **51**, 1450; *J. Gen. Chem. USSR (Engl. Transl.)*, 1981, **51**, 1230, (*sulfide, ir*)

Allman, T. *et al.*, *Can. J. Chem.*, 1982, **60**, 716, (*props, pmr, cmr*)

Olah, G.A. *et al.*, *J.O.C.*, 1983, **48**, 1760, (*oxide*)

Inoue, H. *et al.*, *Z. Naturforsch., B*, 1985, **40**, 22, (*P-31 nmr, Mössbauer*)

Baliah, V. *et al.*, *Indian J. Chem., Sect. A*, 1990, **29**, 390, (*synth, derivs, struct*)

Miranda, R. *et al.*, *Org. Mass Spectrom.*, 1993, **28**, 593, (*sulfide, selenide, ms*)