



>>Entry Name: [1,3-Phenylenebis[methylene]]bis[triphenylphosphonium](2+), 9Cl

Synonym(s): 1,3-Bis(diphenylphosphiniomethyl)benzene(2+)

Related CAS Registry Numbers(s): 104304-21-4

Molecular Formula: $C_{44}H_{38}P_2^{2(+)}$

Molecular Weight: 628.732

Accurate Mass: 628.244874

Percentage Composition: C 84.06%; H 6.09%; P 9.85%

Other Data: LiOEt → bisylide

>>Derivative: Dichloride

CAS Registry Number: 66726-75-8

Molecular Formula: $C_{44}H_{38}Cl_2P_2$

Molecular Weight: 699.637

Accurate Mass: 698.182578

Percentage Composition: C 75.54%; H 5.47%; Cl 10.13%; P 8.85%

Physical Description: No phys. props. reported

>>Derivative: Dibromide

CAS Registry Number: 10273-74-2

Molecular Formula: $C_{44}H_{38}Br_2P_2$

Molecular Weight: 788.54

Accurate Mass: 786.121546

Percentage Composition: C 67.02%; H 4.86%; Br 20.27%; P 7.86%

Use/Importance: Used in Wittig reactions leading to polycyclic hydrocarbons

Physical Description: Solid ($CHCl_3/C_6H_6$), prisms(propanol)

Melting Point: Mp 246°. Mp 320-325 340°

>>Derivative: Bis-ylide

Synonym(s): [1,3-Phenylenebis[methylene]]bis[triphenylphosphorane], 9Cl. (*m*-Phenylenedimethylidyne)bis[triphenylphosphorane], 8Cl

Molecular Formula: $C_{44}H_{36}P_2$

Molecular Weight: 626.716

Accurate Mass: 626.229224

Percentage Composition: C 84.33%; H 5.79%; P 9.88%

Use/Importance: Employed in Wittig reactions; prepd. *in situ*

References:

- Friedrich, F. *et al.*, *Chem. Ber.*, 1959, **92**, 2756, (*bromide, synth*)
Shubina, L.V. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 958), 1972, **42**, 969, (*bromide, synth, use*)
Storck, W. *et al.*, *Makromol. Chem.*, 1975, **176**, 97, (*bromide, synth, use*)
Thulin, B. *et al.*, *Acta Chem. Scand., Ser. B*, 1978, **32**, 109, (*chloride, use*)
Ghose, B.N., *J. Prakt. Chem.*, 1982, **324**, 1052, (*bromide, synth, use*)
Schmelzeisen-Redeker, G. *et al.*, *Org. Mass Spectrom.*, 1985, **20**, 752, (*ms*)