



>>Entry Name: Bis[2-(diphenylphosphino)ethyl]phenylphosphine, 9Cl

Synonym(s): Triphos. 1,1,4,7,7-Pentaphenyl-1,4,7-triphosphaheptane

CAS Registry Number: 23582-02-7

$\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPhCH}_2\text{CH}_2\text{PPh}_2$

Molecular Formula: $\text{C}_{34}\text{H}_{33}\text{P}_3$

Molecular Weight: 534.556

Accurate Mass: 534.179511

Percentage Composition: C 76.39%; H 6.22%; P 17.38%

Use/Importance: Ligand for Cu, Mo, Pt, and W. Rh complexes used in hydroformylation of butadiene

Physical Description: Air-sensitive cryst. (MeOH or EtOH)

Melting Point: Mp 131-132° (121-126°)

Aldrich: 25910-1

>>Derivative: Methiodide (1:3)

Synonym(s): Bis[2-(methyldiphenylphosphonio)ethyl]methylphenylphosphonium triiodide

Molecular Formula: $\text{C}_{37}\text{H}_{42}\text{I}_3\text{P}_3$

Molecular Weight: 960.373

Accurate Mass: 959.963355

Percentage Composition: C 46.27%; H 4.41%; I 39.64%; P 9.68%

Physical Description: Cryst. + 2H₂O (MeOH/Et₂O)

Melting Point: Mp 162-163°

>>Derivative: Trioxide

CAS Registry Number: 53889-34-2

Molecular Formula: $\text{C}_{34}\text{H}_{33}\text{O}_3\text{P}_3$

Molecular Weight: 582.554

Accurate Mass: 582.164256

Percentage Composition: C 70.10%; H 5.71%; O 8.24%; P 15.95%

Use/Importance: Ligand for Cr, Mn, W, Co, Ni, and Pt

Physical Description: Solid

Melting Point: Mp 294-298 dec.°

Solubility: Insol. C₆H₆, Et₂O, petrol

>>Derivative: Trisulfide

Molecular Formula: $\text{C}_{34}\text{H}_{33}\text{P}_3\text{S}_3$

Molecular Weight: 630.754

Accurate Mass: 630.095721

Percentage Composition: C 64.74%; H 5.27%; P 14.73%; S 15.25%

Use/Importance: Ligand for Cd

Physical Description: Cryst. (CH₂Cl₂/hexane)

Melting Point: Mp 227-229°

Solubility: Insol. Et₂O, MeOH, petrol

>>Derivative: Triselenide

Molecular Formula: $\text{C}_{34}\text{H}_{33}\text{P}_3\text{Se}_3$

Molecular Weight: 771.436

Accurate Mass: 773.929071

Percentage Composition: C 52.94%; H 4.31%; P 12.05%; Se 30.71%

Physical Description: Solid

Melting Point: Mp 208-210°

References: