



>>Entry Name: **Benzylidiphenylphosphine**, 8CI

Synonym(s): Diphenyl(phenylmethyl)phosphine, 9CI

CAS Registry Number: 7650-91-1

Related CAS Registry Numbers(s): 106315-55-3 106788-90-3

Ph₂PCH₂Ph

Molecular Formula: C₁₉H₁₇P

Molecular Weight: 276.317

Accurate Mass: 276.106787

Percentage Composition: C 82.59%; H 6.20%; P 11.21%

Use/Importance: Ligand for metals of Groups IB, IIB, VB, VIB, and VIII

Physical Description: Cryst. (O₂-free EtOH)

Melting Point: Mp 74°. Mp 141-142 dec.°

Boiling Point: Bp_{0.15} 146-148°

>>Derivative: Methiodide

Synonym(s): Benzylmethyldiphenylphosphonium iodide. Methyldiphenyl(phenylmethyl)phosphonium iodide

Molecular Formula: C₂₀H₂₀IP

Molecular Weight: 418.256

Accurate Mass: 418.034735

Percentage Composition: C 57.43%; H 4.82%; I 30.34%; P 7.41%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 243-245°

>>Derivative: Oxide

CAS Registry Number: 2959-74-2

Molecular Formula: C₁₉H₁₇OP

Molecular Weight: 292.316

Accurate Mass: 292.101702

Percentage Composition: C 78.07%; H 5.86%; O 5.47%; P 10.60%

Use/Importance: Forms complexes with Co, Ni, Sn, and Nd

Physical Description: Cryst. (C₆H₆ or EtOH)

Melting Point: Mp 198-199° (190°)

pKa Value: p*K*_a 27.1 (DMSO)

>>Derivative: Sulfide

CAS Registry Number: 15367-75-6

Molecular Formula: C₁₉H₁₇PS

Molecular Weight: 308.383

Accurate Mass: 308.078857

Percentage Composition: C 74.00%; H 5.56%; P 10.04%; S 10.40%

Physical Description: Cryst. (THF or EtOH)

Melting Point: Mp 161-163° (156-157°)

pKa Value: p*K*_a 26.5 (diglyme) p*K*_a 26.8 (DMSO)

References: