



>>Entry Name: Diphenylphosphine

CAS Registry Number: 829-85-6

Related CAS Registry Numbers(s): 4376-01-6

Type of Compound Code(s): AC0200

Ph₂PH

Molecular Formula: C₁₂H₁₁P

Molecular Weight: 186.193

Accurate Mass: 186.059837

Percentage Composition: C 77.41%; H 5.95%; P 16.64%

Physical Description: Foul-smelling liq.

Boiling Point: Bp 280°. Bp₂₅ 155-157°. Bp₁ 103°

Density: d¹⁶ 1.07

Refractive Index: n_D²⁰ 1.6279

Other Data: V. easily oxid. in air

Hazard & Toxicity: May ignite in air

Aldrich: 25296-4

Fluka: 43154

>>Derivative: Li salt

Physical Description: Yellow cryst. + 1 dioxan; orange soln. in THF

>>Derivative: Na salt

CAS Registry Number: 4376-01-6

Physical Description: Orange solid

>>Derivative: Oxide

see Diphenylphosphine oxide, [BHK54-W](#)

>>Derivative: Sulfide

CAS Registry Number: 6591-07-7

Type of Compound Code(s): AC0230

Molecular Formula: C₁₂H₁₁PS

Molecular Weight: 218.259

Accurate Mass: 218.031907

Percentage Composition: C 66.04%; H 5.08%; P 14.19%; S 14.69%

Physical Description: Cryst. (MeCN)

Melting Point: Mp 95-97°

Other Data: Tautomeric with Diphenylphosphinothious acid [DRQ31-F](#)

>>Derivative: Selenide

CAS Registry Number: 5853-64-5

Type of Compound Code(s): AC0250

Molecular Formula: C₁₂H₁₁PSe

Molecular Weight: 265.153

Accurate Mass: 265.976357

Percentage Composition: C 54.36%; H 4.18%; P 11.68%; Se 29.78%

Use/Importance: Ligand for Pt

Physical Description: Cryst. (MeCN)

Melting Point: Mp 111-112°

Other Data: Tautomeric with Diphenylphosphinoselenous acid [DSK70-T](#)

References: