



>>Entry Name: 1,4-Bis(diphenylphosphino)butane

Synonym(s): 1,4-Butanediylbis[diphenylphosphine], 9CI

CAS Registry Number: 7688-25-7

$\text{Ph}_2\text{P}(\text{CH}_2)_4\text{PPh}_2$

Molecular Formula: $\text{C}_{28}\text{H}_{28}\text{P}_2$

Molecular Weight: 426.477

Accurate Mass: 426.166624

Percentage Composition: C 78.86%; H 6.62%; P 14.53%

Use/Importance: Co-catalyst for the manuf. of 1,4-hexadiene from ethylene and butadiene. Ligand for Au, V, and Group VIII metals

Physical Description: Air-stable cryst. (EtOH)

Melting Point: Mp 135-136°

Aldrich: 26194-7

Fluka: 14805

>>Derivative: Dioxide

Synonym(s): 1,4-Bis(diphenylphosphinyl)butane

CAS Registry Number: 4151-27-3

Molecular Formula: $\text{C}_{28}\text{H}_{28}\text{O}_2\text{P}_2$

Molecular Weight: 458.475

Accurate Mass: 458.156454

Percentage Composition: C 73.35%; H 6.16%; O 6.98%; P 13.51%

Physical Description: Cryst. (C_6H_6 or EtOH aq.)

Melting Point: Mp 264-266°

Boiling Point: $\text{Bp}_{1.6}$ 290-291°

>>Derivative: Disulfide

Synonym(s): 1,4-Bis(diphenylphosphinothioyl)butane

CAS Registry Number: 61894-26-6

Molecular Formula: $\text{C}_{28}\text{H}_{28}\text{P}_2\text{S}_2$

Molecular Weight: 490.609

Accurate Mass: 490.110764

Percentage Composition: C 68.55%; H 5.75%; P 12.63%; S 13.07%

Physical Description: Solid

Melting Point: Mp 223-224°

>>Derivative: Diselenide

Synonym(s): 1,4-Bis(diphenylphosphinoselenoyl)butane

CAS Registry Number: 61894-29-9

Molecular Formula: $\text{C}_{28}\text{H}_{28}\text{P}_2\text{Se}_2$

Molecular Weight: 584.397

Accurate Mass: 585.999664

Percentage Composition: C 57.55%; H 4.83%; P 10.60%; Se 27.02%

Physical Description: Solid

Melting Point: Mp 190°

References: