



>>Entry Name: **1,3-Bis(diphenylphosphino)propane**

Synonym(s): 1,3-Propanediylbis[diphenylphosphine], 9CI

CAS Registry Number: 6737-42-4

$\text{Ph}_2\text{P}(\text{CH}_2)_3\text{PPh}_2$

Molecular Formula: $\text{C}_{27}\text{H}_{26}\text{P}_2$

Molecular Weight: 412.45

Accurate Mass: 412.150974

Percentage Composition: C 78.63%; H 6.35%; P 15.02%

Use/Importance: Catalyst for manuf. of 1,4-hexadiene from ethylene and butadiene. Ligand for metals of Groups VB, VIB, VIIB and VIII

Physical Description: Air-stable cryst.

Melting Point: Mp 60-63°

Aldrich: 26204-8

Fluka: 14820

>>Derivative: Dioxide

Synonym(s): 1,3-Bis(diphenylphosphinyl)propane

CAS Registry Number: 16524-41-7

Molecular Formula: $\text{C}_{27}\text{H}_{26}\text{O}_2\text{P}_2$

Molecular Weight: 444.449

Accurate Mass: 444.140804

Percentage Composition: C 72.97%; H 5.90%; O 7.20%; P 13.94%

Use/Importance: Forms complexes with rare earth and transuranic elements

Physical Description: Cryst. (toluene/cyclohexane or C_6H_6)

Melting Point: Mp 142-144°

Boiling Point: $\text{Bp}_{0.1}$ 295-300°

>>Derivative: Disulfide

Synonym(s): 1,3-Bis(diphenylphosphinothioyl)propane

CAS Registry Number: 61894-25-5

Molecular Formula: $\text{C}_{27}\text{H}_{26}\text{P}_2\text{S}_2$

Molecular Weight: 476.582

Accurate Mass: 476.095114

Percentage Composition: C 68.05%; H 5.50%; P 13.00%; S 13.46%

Use/Importance: Forms complexes containing Cd, Hg, Pt, Pd

Physical Description: Solid

Melting Point: Mp 110-112°. Mp 126-127°

>>Derivative: Diselenide

CAS Registry Number: 61894-28-8

Molecular Formula: $\text{C}_{27}\text{H}_{26}\text{P}_2\text{Se}_2$

Molecular Weight: 570.37

Accurate Mass: 571.984014

Percentage Composition: C 56.86%; H 4.59%; P 10.86%; Se 27.69%

Use/Importance: Forms Pd complexes

Physical Description: Solid

Melting Point: Mp 112°

References: