



>>Entry Name: Tetraphenyldiphosphine, 9CI

Synonym(s): Tetraphenylbiphosphine

CAS Registry Number: 1101-41-3

Ph₂PPPh₂

Molecular Formula: C₂₄H₂₀P₂

Molecular Weight: 370.369

Accurate Mass: 370.104024

Percentage Composition: C 77.83%; H 5.44%; P 16.73%

Physical Description: Air-sensitive cryst. (C₆H₆/Et₂O)

Melting Point: Mp 125-126°

Boiling Point: Bp₁ 258-260°

Other Data: Cleaved by MeI, yields Ph₂P. radicals on uv irradiation.

Aldrich: 31019-0

>>Derivative: Mono-oxide

CAS Registry Number: 2096-83-5

Molecular Formula: C₂₄H₂₀OP₂

Molecular Weight: 386.369

Accurate Mass: 386.098939

Percentage Composition: C 74.61%; H 5.22%; O 4.14%; P 16.03%

Physical Description: Cryst. (Me₂CO aq.), stable in air for short periods

Melting Point: Mp 53-56°

Solubility: Sl. sol. cold C₆H₆, toluene, EtOH, spar. sol. Et₂O

Other Data: Cleaved by Br₂ and by aromatic carboxylic acids

>>Derivative: Dioxide

>>Derivative: Monosulfide

CAS Registry Number: 26978-37-0

Molecular Formula: C₂₄H₂₀P₂S

Molecular Weight: 402.435

Accurate Mass: 402.076094

Percentage Composition: C 71.63%; H 5.01%; P 15.39%; S 7.97%

Physical Description: Cryst. (petrol)

Melting Point: Mp 138°

>>Derivative: Disulfide

>>Derivative: Mono-oxide, monosulfide

Molecular Formula: C₂₄H₂₀OP₂S

Molecular Weight: 418.435

Accurate Mass: 418.071009

Percentage Composition: C 68.89%; H 4.82%; O 3.82%; P 14.80%; S 7.66%

Physical Description: Needles (Me₂CO aq.)

Melting Point: Mp 166-170°

References: