>>**Entry Name: Tetraphenyldiphosphine,** 9Cl
Synonym(s): Tetraphenylbiphosphine

CAS Registry Number: 1101-41-3

Ph_2PPPh_2

Molecular Formula: $C_{24}H_{20}P_2$
Molecular Weight: 370.369
Accurate Mass: 370.104024
Percentage Composition: C 77.83%; H 5.44%; P 16.73%
Physical Description: Air-sensitive cryst. (C_6H_6/Et_2O)
Melting Point: Mp 125-126°
Boiling Point: Bp_1 258-260°
Other Data: Cleaved by MeI, yields Ph_2P. radicals on uv irradn.

Aldrich: 31019-0

>>**Derivative:** Mono-oxide

CAS Registry Number: 2096-83-5

Molecular Formula: $C_{24}H_{20}OP_2$
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. (Me_2CO aq.), stable in air for short periods
Melting Point: Mp 53-56°
Solubility: Sl. sol. cold C_6H_6, toluene, EtOH, spar. sol. Et_2O
Other Data: Cleaved by Br_2 and by aromatic carboxylic acids

>>**Derivative:** Dioxide

>>**Derivative:** Monosulfide

CAS Registry Number: 26978-37-0

Molecular Formula: $C_{24}H_{20}P_2S$
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: $C_{24}H_{20}OP_2S$
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 (Me_2CO aq.)
Melting Point: Mp 166-170°

References: