>>**Entry Name: Tris(4-methylphenyl)phosphine,** 9CI
Synonym(s): Tri-*p*-tolylphosphine, 8CI

CAS Registry Number: 1038-95-5

Molecular Formula: $C_{21}H_{21}P$
Molecular Weight: 304.371
Accurate Mass: 304.138087
Percentage Composition: C 82.87%; H 6.95%; P 10.18%
Use/Importance: Ligand for metals of Groups IB, IIB, VIB, VIIB and VIII
Physical Description: Rhombs (Me_2CO), silky needles or prisms(EtOH aq.)
Melting Point: Mp 146°
pKa Value: pK_a 3.84 ($MeNO_2$)
Other Data: Air-sensitive

Aldrich: 28783-0
Fluka: 93414
Rare Chemicals Library: S54118-4

>>**Derivative:** Methobromide
Synonym(s): Methyltris(4-methylphenyl)phosphonium bromide

Molecular Formula: $C_{22}H_{24}BrP$
Molecular Weight: 399.309
Accurate Mass: 398.099898
Percentage Composition: C 66.17%; H 6.06%; Br 20.01%; P 7.76%
Physical Description: Cryst.
Melting Point: Mp 219-220°

>>**Derivative:** Methiodide
Synonym(s): Methyltris(4-methylphenyl)phosphonium iodide

Molecular Formula: $C_{22}H_{24}IP$
Molecular Weight: 446.31
Accurate Mass: 446.066035
Percentage Composition: C 59.21%; H 5.42%; I 28.43%; P 6.94%
Physical Description: Cryst. (EtOH)
Melting Point: Mp 191-192°

>>**Derivative:** Oxide

CAS Registry Number: 797-70-6

Molecular Formula: $C_{21}H_{21}OP$
Molecular Weight: 320.37
Accurate Mass: 320.133002
Percentage Composition: C 78.73%; H 6.61%; O 4.99%; P 9.67%
Use/Importance: Complexes with Fe, Ni, Pd, Ta, and Sn
Physical Description: Cryst. (C_6H_6)
Melting Point: Mp 145-146°
Other Data: Forms a hemihydrate