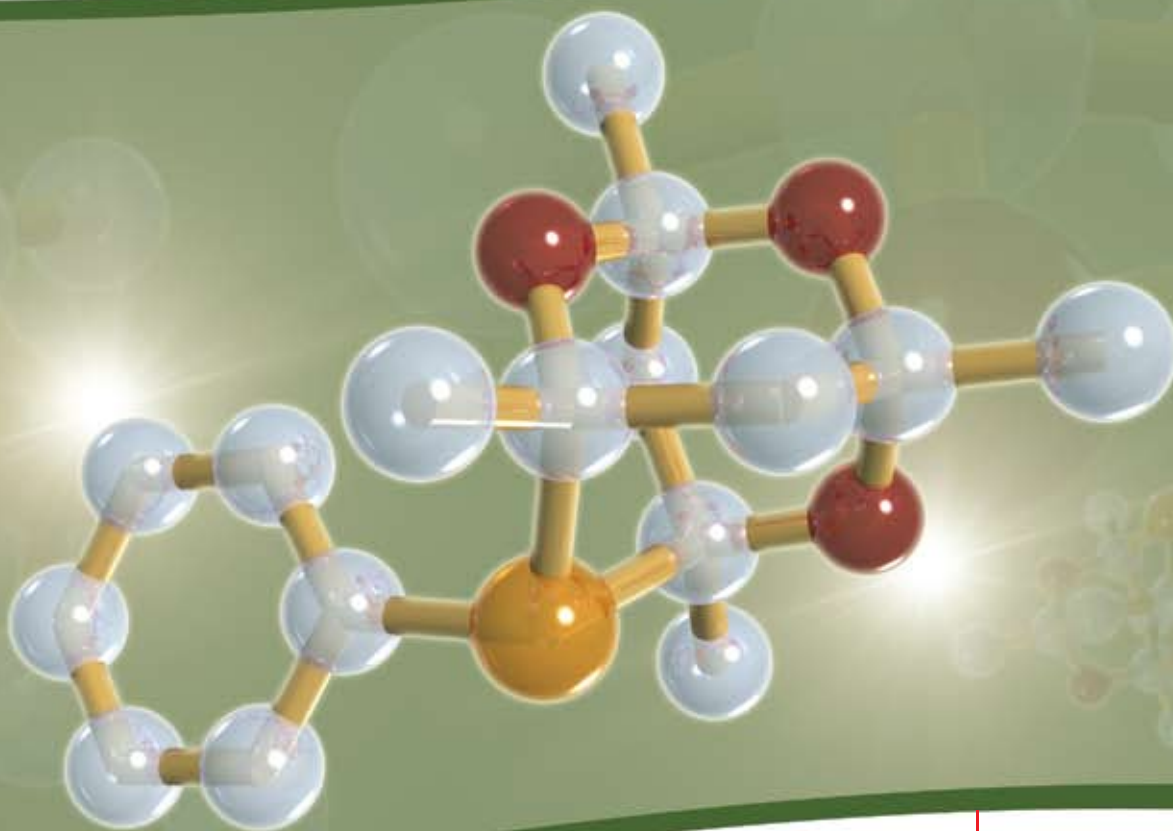


Phosphine Chemistry



*Air-stable phosphine used in the
hydroformylation of alkenes*

Features include:

Phosphorus Precursors
Phosphine Ligands
Phosphine Oxides
Phosponites/
Phosphinites/Phosphites
Polydentate Phosphine
Ligands

Introduction

Molecules containing a tertiary phosphine have played an important role in the development of organic reactions, predominantly in catalysis. The electronic and steric properties of these molecules have made them a prime choice for the synthesis of ligands that are used in the design of metal-based catalysts. Furthermore, they stabilize a wide variety of metal complexes and are relatively inert to many reaction conditions. These properties can be systematically tuned with predictable results. They are used in a variety of catalytic reactions such as cross-coupling and asymmetric synthesis.

At Sigma-Aldrich®, we are committed to providing unprecedented accessibility to phosphorus compounds. For a complete listing of products related to phosphines, please visit sigma-aldrich.com/gochem. If you cannot find a product for your research efforts in organic synthesis or drug discovery, we welcome your input. "Please Bother Us" with your suggestions at william.sommer@sial.com or contact your local Sigma-Aldrich office.



William Sommer
Product Manager

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About Our Cover

The cover graphic represents the three dimensional structure of 1,3,5,7-tetramethyl-6-phenyl-2,4,8-trioxa-6-phosphaadamantane. In this graphic the hydrogen atoms are not represented. This air-stable phosphine ligand proved to be one of the most efficient ligands for the hydroformylation of alkenes.

ChemFiles

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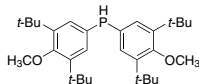
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Phosphorus Precursors

P-H

Bis(3,5-di-*tert*-butyl-4-methoxyphenyl)phosphine

$C_{30}H_{47}O_2P$
FW 470.67

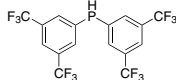


694673-100MG

100 mg

Bis(3,5-di(trifluoromethyl)phenyl)phosphine

[166172-69-6]
 $C_{16}H_7F_{12}P$
FW 458.18



695335-100MG

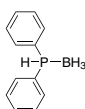
100 mg

695335-500MG

500 mg

Borane diphenylphosphine complex, 98%

[41593-58-2]
 $C_{12}H_{14}BP$
FW 200.02



449563-1G

1 g

449563-5G

5 g

tert-Butylphenylphosphine, 97%

[6002-31-9]
 $C_{10}H_{15}P$
FW 166.20



596558-1G

1 g

Di-*tert*-butylphosphine, 98%

[819-19-2]
 $C_8H_{19}P$
FW 146.21



362719-1G

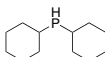
1 g

362719-5G

5 g

Dicyclohexylphosphine, 97%

[829-84-5]
 $C_{12}H_{23}P$
FW 198.28



666572-5G

5 g

666572-25G

25 g

Dicyclopentylphosphine, 97%

[39864-68-1]
 $C_{10}H_{19}P$
FW 170.23

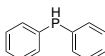


682918-1G

1 g

Diphenylphosphine, 98%

[829-85-6]
 $C_{12}H_{11}P$
FW 186.19



252964-10G

10 g

252964-50G

50 g

Phenylphosphine

[638-21-1]
 C_6H_7P
FW 110.09



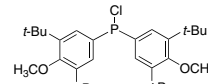
674389-50ML

50 mL

P-Cl

Bis(3,5-di-*tert*-butyl-4-methoxyphenyl)chlorophosphine

[212713-08-1]
 $C_{30}H_{46}ClO_2P$
FW 505.11



694703-100MG

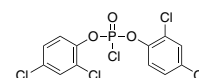
100 mg

694703-500MG

500 mg

Bis(2,4-dichlorophenyl) chlorophosphate, 95%

Bis(2,4-dichlorophenyl) phosphorochloridate
[14254-41-2]
 $C_{12}H_6Cl_5O_3P$
FW 406.41



457094-5G

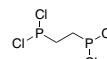
5 g

457094-25G

25 g

1,2-Bis(dichlorophosphino)ethane

[28240-69-9]
 $C_2H_4Cl_4P_2$
FW 231.81



261920-1G

1 g

261920-5G

5 g

Bis(dichlorophosphino)methane, 95%

[28240-68-8]
 $CH_2Cl_4P_2$
FW 217.79



451053-1G

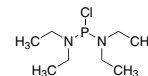
1 g

451053-10G

10 g

Bis(diethylamino)chlorophosphine, 97%

[685-83-6]
 $C_8H_{20}ClN_2P$
FW 210.68



362565-1G

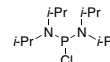
1 g

362565-5G

5 g

Bis(diisopropylamino)chlorophosphine

[56183-63-2]
 $C_{12}H_{28}ClN_2P$
FW 266.79



341347-1G

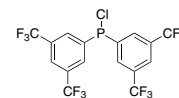
1 g

341347-5G

5 g

Bis(3,5-di(trifluoromethyl)phenyl)chlorophosphine

[142421-57-6]
 $C_{16}H_6ClF_{12}P$
FW 492.63



694746-100MG

100 mg

694746-500MG

500 mg

tert-Butyldichlorophosphine, 98%

[25979-07-1]
 $C_4H_9Cl_2P$
FW 158.99



381020-2G

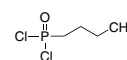
2 g

381020-10G

10 g

Butylphosphonic dichloride, 98%

[2302-80-9]
 $C_4H_9Cl_2OP$
FW 174.99



305588-1G

1 g

tert-Butylphosphonic dichloride, 98%

[4707-95-3]
 $C_4H_9Cl_2OP$
 FW 174.99



305596-1G	1 g
305596-5G	5 g

2-Chloro-1,3,2-benzodioxaphosphorin-4-one, 95%

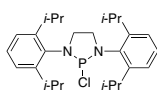
Salicyl chlorophosphite
 [5381-99-7]
 $C_7H_4ClO_3P$
 FW 202.53



324124-5G	5 g
324124-25G	25 g

2-Chloro-1,3-bis(2,6-diisopropylphenyl)-1,3,2-diazaphospholidine

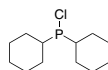
[314730-65-9]
 $C_{26}H_{38}ClN_2P$
 FW 445.02



694207-250MG	250 mg
694207-1G	1 g

Chlorodicyclohexylphosphine, 97%

[16523-54-9]
 $C_{12}H_{22}ClP$
 FW 232.73



481408-1G	1 g
481408-5G	5 g

Chlorodicyclopentylphosphine, 97%

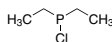
[130914-24-8]
 $C_{10}H_{18}ClP$
 FW 204.68



649066-1G	1 g
649066-5G	5 g
649066-25G	25 g

Chlorodiethylphosphine

Diethylphosphinous chloride
 [686-69-1]
 $C_4H_{10}ClP$
 FW 124.55



573949-1G	1 g
573949-5G	5 g

Chlorodiisopropylphosphine, 96%

[40244-90-4]
 $C_6H_{14}ClP$
 FW 152.60



337773-5G	5 g
337773-25G	25 g

2-Chloro-1,3,2-dioxaphospholane, 97%

Ethylene cycl-chlorophosphite
 [822-39-9]
 $C_2H_4ClO_2P$
 FW 126.48



391220-5ML	5 mL
391220-25ML	25 mL

2-Chloro-1,3,2-dioxaphospholane 2-oxide

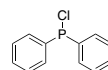
2-Chloro-2-oxo-1,3,2-dioxaphospholane;
 Ethylene cycl-chlorophosphate
 [6609-64-9]
 $C_2H_4ClO_3P$
 FW 142.48



377953-1G	1 g
377953-5G	5 g

Chlorodiphenylphosphine, 98%

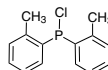
P-Chlorodiphenylphosphine;
 Diphenylphosphinous chloride
 [1079-66-9]
 $C_{12}H_{10}ClP$
 FW 220.63



C39601-25G	25 g
C39601-100G	100 g
C39601-500G	500 g

Chlorodi(o-tolyl)phosphine

Chlorobis(2-methylphenyl)phosphine;
 Bis(2-methylphenyl)phosphinous chloride
 [36042-94-1]
 $C_{14}H_{14}ClP$
 FW 248.69



686697-1G	1 g
686697-5G	5 g

► ≥95.0% (GC)

59713-1G-F	1 g
59713-5G-F	5 g

Chloromethylphosphonic acid dichloride, 97%

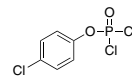
[1983-26-2]
 CH_2Cl_2OP
 FW 167.36



C56255-10G	10 g
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4-Chlorophenyl dichlorophosphate, 99%

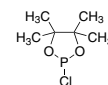
4-Chlorophenyl phosphorodichloridate
 [772-79-2]
 $C_6H_4Cl_3O_2P$
 FW 245.43



235245-5G	5 g
235245-25G	25 g

2-Chloro-4,4,5,5-tetramethyl-1,3,2-dioxaphospholane, 95%

[14812-59-0]
 $C_6H_{12}ClO_2P$
 FW 182.59



447536-1G	1 g
447536-5G	5 g

Di-tert-butylchlorophosphine, 96%

[13716-10-4]
 $C_8H_{18}ClP$
 FW 180.66



301558-1G	1 g
301558-5G	5 g
301558-25G	25 g
301558-100G	100 g

Dichloroethylphosphine, 95%

Ethylchlorophosphine
 [1498-40-4]
 $C_2H_5Cl_2P$
 FW 130.94



336858-5G	5 g
336858-25G	25 g

Dichloroisopropylphosphine, 97%

[25235-15-8]
 $C_3H_7Cl_2P$
 FW 144.97



384402-5G	5 g
-----------	-----

Dichloromethylphosphine, 96%

Methyldichlorophosphine

[676-83-5]

 $\text{CH}_3\text{Cl}_2\text{P}$

FW 116.91



466840-5ML	5 mL
466840-15ML	15 mL

P,P-Dichlorophenylphosphine, 97%

Phenylphosphonous dichloride

[644-97-3]

 $\text{C}_6\text{H}_5\text{Cl}_2\text{P}$

FW 178.98



D71984-5G	5 g
D71984-100G	100 g
D71984-500G	500 g
D71984-1KG	1 kg

P,P-Dichlorophenylphosphine oxide, ≥90% (GC)

[824-72-6]

 $\text{C}_6\text{H}_5\text{Cl}_2\text{OP}$

FW 194.98



36242-50ML	50 mL
36242-250ML	250 mL

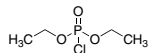
Diethyl chlorophosphate

Diethyl phosphorochloridate

[814-49-3]

 $\text{C}_4\text{H}_{10}\text{ClO}_3\text{P}$

FW 172.55

**► 97%**

D91632-25G	25 g
D91632-100G	100 g

► >97.0% (T)

32085-25ML	25 mL
32085-100ML	100 mL
32085-500ML	500 mL

Diethyl chlorophosphite, 95%

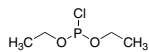
Diethyl phosphorochloridite;

Diethyl chlorophosphonite

[589-57-1]

 $\text{C}_4\text{H}_{10}\text{ClO}_2\text{P}$

FW 156.55



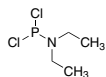
D91659-5G	5 g
D91659-25G	25 g
D91659-100G	100 g

Diethylphosphoramidous dichloride, 97%

[1069-08-5]

 $\text{C}_4\text{H}_{10}\text{Cl}_2\text{NP}$

FW 174.01



362891-1G	1 g
362891-5G	5 g

N,N-Diisopropylmethylphosphonamidic chloride, 95%

Methyl N,N-diisopropylchlorophosphoramidite;

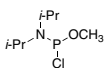
Chloro(diisopropylamino)methoxyphosphine;

Methyl N,N-diisopropylphosphoramidochloridite

[86030-43-5]

 $\text{C}_7\text{H}_{17}\text{ClNOP}$

FW 197.64



262528-1G	1 g
262528-5G	5 g

Diisopropylphosphoramidous dichloride, 95%

[921-26-6]

 $\text{C}_6\text{H}_{14}\text{Cl}_2\text{NP}$

FW 202.06



307254-1G	1 g
307254-5G	5 g

Dimethyl chlorophosphate, 96%

Dimethyl phosphorochloridate

[813-77-4]

 $\text{C}_2\text{H}_6\text{ClO}_3\text{P}$

FW 144.49



437891-5ML	5 mL
437891-25ML	25 mL

Dimethylphosphinic chloride, 97%

[1111-92-8]

 $\text{C}_2\text{H}_6\text{ClOP}$

FW 112.50



328332-100MG	100 mg
328332-500MG	500 mg

N,N-Dimethylphosphoramidic dichloride, ≥98.0% (AT)

DMPADC; Dimethylamidophosphoric dichloride

[677-43-0]

 $\text{C}_2\text{H}_6\text{Cl}_2\text{NOP}$

FW 161.95



79625-10ML	10 mL
------------	-------

Dimethylphosphoramidous dichloride, 97%

[683-85-2]

 $\text{C}_2\text{H}_6\text{Cl}_2\text{NP}$

FW 145.96



391638-5ML	5 mL
391638-25ML	25 mL

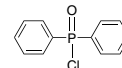
Diphenylphosphinic chloride, 98%

Chlorodiphenylphosphine oxide

[1499-21-4]

 $\text{C}_{12}\text{H}_{10}\text{ClOP}$

FW 236.63



230235-5G	5 g
230235-10G	10 g
230235-50G	50 g

Diphenyl phosphoryl chloride

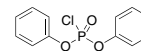
Diphenyl chlorophosphate;

Diphenyl phosphorochloridate

[2524-64-3]

 $\text{C}_{12}\text{H}_{10}\text{ClO}_2\text{P}$

FW 268.63

**► 99%**

D206555-25G	25 g
D206555-100G	100 g

► 96%

344249-100G	100 g
344249-500G	500 g

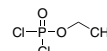
Ethyl dichlorophosphate, 96%

Ethyl phosphorodichloridate

[1498-51-7]

 $\text{C}_2\text{H}_5\text{Cl}_2\text{O}_2\text{P}$

FW 162.94



E23704-5G	5 g
E23704-25G	25 g
E23704-100G	100 g

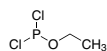
Ethyl dichlorophosphite, 98%

Ethyl phosphorodichloridite

[1498-42-6]

 $C_2H_5Cl_2OP$

FW 146.94



197475-1G	1 g
197475-10G	10 g
197475-50G	50 g

Ethylphosphonic dichloride, 98%

[1066-50-8]

 $C_2H_5Cl_2OP$

FW 146.94



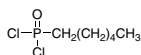
275964-5G	5 g
275964-25G	25 g

Hexylphosphonic dichloride, 95%

[928-64-3]

 $C_6H_{13}Cl_2OP$

FW 203.05



305626-1G	1 g
305626-5G	5 g

Methyl dichlorophosphate, 85%

Methyl phosphorodichloridate

[677-24-7]

 $CH_3Cl_2O_2P$

FW 148.91



158216-5G	5 g
158216-25G	25 g
158216-100G	100 g

Methyl dichlorophosphite

Methyl phosphorodichloridite

[3279-26-3]

 CH_3Cl_2OP

FW 132.91

**► ≥97.0% (GC)**

66625-5ML	5 mL
66625-25ML	25 mL
235229-5G	5 g
235229-10G	10 g
235229-50G	50 g

Methylenebis(phosphonic dichloride), 97%

[1499-29-2]

 $CH_2Cl_2O_2P_2$

FW 249.78



447714-1G	1 g
447714-5G	5 g

Methylphosphonic dichloride, 98%

[676-97-1]

 CH_3Cl_2OP

FW 132.91



228052-5G	5 g
228052-25G	25 g

Phenyl dichlorophosphate, ≥95%

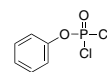
Phenyl phosphodichloridate; Phenyl phosphoryl

dichloride; Phenyl phosphorodichloridate

[770-12-7]

 $C_6H_5Cl_2O_2P$

FW 210.98



P22389-25G	25 g
P22389-100G	100 g

o-Phenylene phosphorochloridate

o-Phenylene chlorophosphate; 2-Chloro-1,3,2-

benzodioxaphosphole 2-oxide

[1499-17-8]

 $C_6H_4ClO_3P$

FW 190.52



156140-5G	5 g
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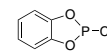
o-Phenylene phosphorochloridite

2-Chloro-1,3,2-benzodioxaphosphole

[1641-40-3]

 $C_6H_4ClO_2P$

FW 174.52



155764-10G	10 g
155764-50G	50 g

Phenylphosphonic dichloride, 90%*P,P*-Dichlorophenylphosphine oxide

[824-72-6]

 $C_6H_5Cl_2OP$

FW 194.98



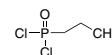
389560-100ML	100 mL
389560-500ML	500 mL

Propylphosphonic dichloride, 90%

[4708-04-7]

 $C_3H_7Cl_2OP$

FW 160.97



455873-5ML	5 mL
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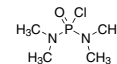
***N,N,N',N'*-Tetramethylphosphorodiamidic chloride, 90%**

Bis(dimethylamido)phosphoric chloride

[1605-65-8]

 $C_4H_{12}ClN_2OP$

FW 170.58



163937-10G	10 g
163937-50G	50 g

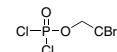
2,2,2-Tribromoethyl dichlorophosphate, 97%

2,2,2-Tribromoethyl phosphorodichloridate

[53676-22-5]

 $C_2H_2Br_3Cl_2O_2P$

FW 399.63



244287-5G	5 g
244287-25G	25 g

Phosphine Ligands

Containing Aryls and/or Alkyls

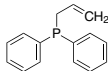
Allyldiphenylphosphine, 95%

Diphenyl-2-propenylphosphine

[2741-38-0]

C₁₅H₁₅P

FW 226.25



336874-2G

2 g

336874-10G

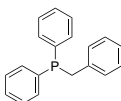
10 g

Benzylidiphenylphosphine

[7650-91-1]

C₁₉H₁₇P

FW 276.31



487546-5G

5 g

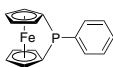
1,1'-Bis(phenylphosphinidene)ferrocene, 97%

1,1'-(Ferrocenediyl)phenylphosphine

[72954-06-4]

C₁₆H₁₃FeP

FW 292.09



567159-1G

1 g

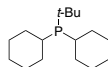
tert-Butyldicyclohexylphosphine, 97%

Dicyclohexyl-tert-butylphosphine

[93634-87-8]

C₁₆H₃₁P

FW 254.39



651605-1G

1 g

651605-5G

5 g

tert-Butyldiisopropylphosphine, 97%

[51567-05-6]

C₁₀H₂₃P

FW 174.26



639346-1G

1 g

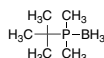
639346-5G

5 g

tert-Butyldimethylphosphine borane, 97%

C₆H₁₈BP

FW 131.99



677647-250MG

250 mg

677647-1G

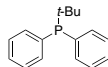
1 g

tert-Butyldiphenylphosphine, 97%

[6002-34-2]

C₁₆H₁₉P

FW 242.30



591688-1G

1 g

591688-5G

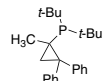
5 g

cBRIDP

Mo-Phos; Di-tert-butyl(2,2-diphenyl-1-methyl-1-cyclopropyl)phosphine

C₂₄H₃₃P

FW 352.49



693383-100MG

100 mg

693383-500MG

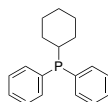
500 mg

Cyclohexyldiphenylphosphine

[6372-42-5]

C₁₈H₂₁P

FW 268.33



510742-1G

1 g

510742-5G

5 g

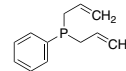
Diallylphenylphosphine, 95%

Phenyl-di-2-propenylphosphine

[29949-75-5]

C₁₂H₁₅P

FW 190.22



336882-2G

2 g

Di-tert-butylmethylphosphine, 97%

[6002-40-0]

C₉H₂₁P

FW 160.24



642629-5G

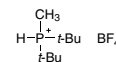
5 g

Di-tert-butyl(methyl)phosphonium tetrafluoroborate, 97%

[870777-30-3]

C₉H₂₁BF₄P

FW 248.05



643777-1G

1 g

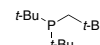
643777-5G

5 g

Di-tert-butylneopentylphosphine, 95%

C₁₃H₂₉P

FW 216.34



676187-1G

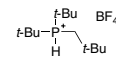
1 g

Di-tert-butylneopentylphosphonium tetrafluoroborate, 97%

Di-tert-butylneopentylphosphine tetrafluoroborate

C₁₃H₃₀BF₄P

FW 304.16



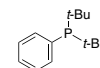
676179-1G

1 g

Di-tert-butylphenylphosphine, 95%

C₁₄H₂₃P

FW 222.31



682411-1G

1 g

682411-5G

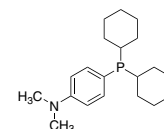
5 g

Dicyclohexyl(4-(N,N-dimethylamino)phenyl)phosphine, 95%

[40438-64-0]

C₂₀H₃₂NP

FW 317.45



692689-250MG

250 mg

692689-1G

1 g

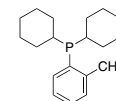
Dicyclohexyl(2-methylphenyl)phosphine, 95%

(o-Tolyl)dicyclohexylphosphine

[173593-25-4]

C₁₉H₂₉P

FW 288.41



651885-1G

1 g

651885-10G

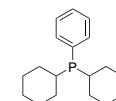
10 g

Dicyclohexylphenylphosphine, 95%

[6476-37-5]

C₁₈H₂₇P

FW 274.38



288284-1G

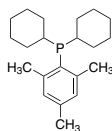
1 g

Dicyclohexyl(2,4,6-trimethylphenyl)phosphine, 97%

[870703-48-3]

C₂₁H₃₃P

FW 316.46



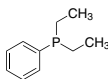
651877-1G	1 g
651877-10G	10 g

Diethylphenylphosphine, 96%

[1605-53-4]

C₁₀H₁₅P

FW 166.20



381241-1G	1 g
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Dimethylphenylphosphine, 97%

[672-66-2]

C₈H₁₁P

FW 138.15



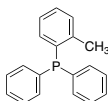
265020-1G	1 g
265020-5G	5 g
265020-25G	25 g

Diphenyl(o-tolyl)phosphine, 98%

[5931-53-3]

C₁₉H₁₇P

FW 276.31



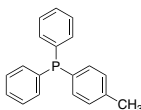
287938-1G	1 g
287938-5G	5 g

Diphenyl(p-tolyl)phosphine, 96%

[1031-93-2]

C₁₉H₁₇P

FW 276.31



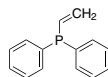
155039-10G	10 g
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Diphenylvinylphosphine, 95%

[2155-96-6]

C₁₄H₁₃P

FW 212.23



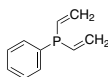
252972-5G	5 g
252972-25G	25 g

Divinylphenylphosphine

[26681-88-9]

C₁₀H₁₁P

FW 162.17



479799-5G	5 g
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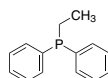
Ethylidiphenylphosphine, 98%

Diphenylethylphosphine

[607-01-2]

C₁₄H₁₅P

FW 214.24



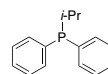
336904-2G	2 g
336904-10G	10 g

Isopropylidiphenylphosphine, 97%

[6372-40-3]

C₁₅H₁₇P

FW 228.27



336920-2G	2 g
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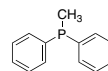
Methyldiphenylphosphine, 99%

Diphenyl-methylphosphine

[1486-28-8]

C₁₃H₁₃P

FW 200.22



244902-1G	1 g
244902-10G	10 g
244902-50G	50 g

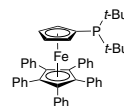
1,2,3,4,5-Pentaphenyl-1'-(di-tert-butylphosphino)ferrocene

Q-Phos

[312959-24-3]

C₄₈H₄₇FeP

FW 710.71



675784-100MG	100 mg
675784-500MG	500 mg

Sold in collaboration with Johnson Matthey for research purposes only. US6562989 B2 and any patents arising therefrom apply.

Phosphine Ligands Kit I**Components**

- 1,1'-Bis(diphenylphosphino)ferrocene (Aldrich 177261) 1 g
- Tricyclohexylphosphine (Aldrich 261971) 1 g
- 1,3-Bis(diphenylphosphino)propane (Aldrich 262048) 1 g
- Tri(o-tolyl)phosphine (Aldrich 287822) 1 g
- Tri-tert-butylphosphonium tetrafluoroborate (Aldrich 578940) 1 g
- Tri(2-furyl)phosphine (Aldrich 383767) 1 g
- Triphenylphosphine (Sial T84409) 1 g

659940-1KIT	1 kit
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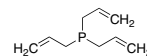
Triallylphosphine, 95%

Tri-2-propenylphosphine

[16523-89-0]

C₉H₁₅P

FW 154.19



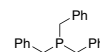
336939-5G	5 g
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Tribenzylphosphine, 98%

[7650-89-7]

C₂₁H₂₁P

FW 304.37



336947-2G	2 g
336947-10G	10 g

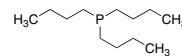
Tributylphosphine

TBP

[998-40-3]

C₁₂H₂₇P

FW 202.32

**► 97%**

T49484-5ML	5 mL
T49484-25ML	25 mL

► ≥93.5% (GC, Tri-N-butylphosphine)

≥97% (Tri-N-butylphosphine + isomers)

90827-25ML	25 mL
90827-100ML	100 mL
90827-500ML	500 mL

Tri-*tert*-butylphosphine

[13716-12-6]

 $C_{12}H_{27}P$

FW 202.32

► **98%**

570958-1G	1 g
570958-5G	5 g
570958-10G	10 g

► **90%**

336955-1G	1 g
336955-5G	5 g

Tri-*tert*-butylphosphine solution

[13716-12-6]

 $C_{12}H_{27}P$

FW 202.32

► **1.0 M in toluene**

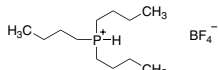
655325-10ML	10 mL
655325-50ML	50 mL

Tributylphosphine tetrafluoroborate, 97%

[113978-91-9]

 $C_{12}H_{28}BF_4P$

FW 290.13



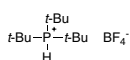
576492-1G	1 g
576492-5G	5 g

Tri-*tert*-butylphosphonium tetrafluoroborate, 97%

[131274-22-1]

 $C_{12}H_{28}BF_4P$

FW 290.13



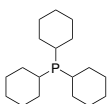
578940-1G	1 g
578940-5G	5 g

Tricyclohexylphosphine

[2622-14-2]

 $C_{18}H_{33}P$

FW 280.43



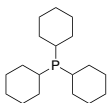
261971-1G	1 g
261971-5G	5 g
261971-25G	25 g

Tricyclohexylphosphine solution

[2622-14-2]

 $C_{18}H_{33}P$

FW 280.43

► **1 M in tetrahydrofuran**

592390-100ML	100 mL
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► **1 M in toluene**

592285-100ML	100 mL
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► **20 wt. % in toluene**

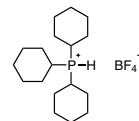
455164-100G	100 g
455164-500G	500 g

Tricyclohexylphosphine tetrafluoroborate, 97%

[58656-04-5]

 $C_{18}H_{33}P \cdot HBF_4$

FW 368.24



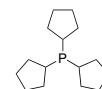
631493-1G	1 g
631493-5G	5 g

Tricyclopentylphosphine, 97%

[7650-88-6]

 $C_{15}H_{27}P$

FW 238.35



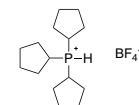
649074-1G	1 g
649074-5G	5 g

Tricyclopentylphosphine tetrafluoroborate, 95%

[610756-04-2]

 $C_{15}H_{28}BF_4P$

FW 326.16



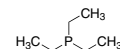
673951-1G	1 g
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Triethylphosphine

[554-70-1]

 $C_6H_{15}P$

FW 118.16

► **Cytop® 320**≥**90% (GC)**

09167-250ML-F	250 mL
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► **99%**

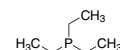
245275-5G	5 g
245275-25G	25 g

Triethylphosphine solution

[554-70-1]

 $C_6H_{15}P$

FW 118.16

► **~70% in isopropanol**

91652-25ML	25 mL
91652-100ML	100 mL

► **1.0 M in tetrahydrofuran**

346179-50ML	50 mL
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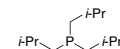
Triisobutylphosphine, 95%

Tris(2-methylpropyl)phosphine

[4125-25-1]

 $C_{12}H_{27}P$

FW 202.32



395110-1G	1 g
395110-5G	5 g

Triisopropylphosphine, 90%

[6476-36-4]

 $C_9H_{21}P$

FW 160.24



377309-1G	1 g
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Trimethylphosphine, 97%

[594-09-2]

 C_3H_9P

FW 76.08



323322-25G	25 g
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Trimethylphosphine solution

[594-09-2]

 C_3H_9P

FW 76.08

**► 1.0 M in tetrahydrofuran**

324108-100ML 100 mL

► 1.0 M in toluene

324116-100ML 100 mL

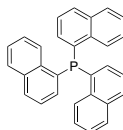
Tri-1-naphthylphosphine, 97%

Tris(1-naphthyl)phosphine

[3411-48-1]

 $C_{30}H_{21}P$

FW 412.46



667218-1G 1 g

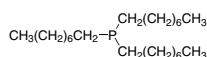
667218-5G 5 g

Trioctylphosphine, 90%

[4731-53-7]

 $C_{24}H_{51}P$

FW 370.64



117854-25ML 25 mL

117854-100ML 100 mL

117854-500ML 500 mL

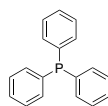
Triphenylphosphine

Phosphorustriphenyl

[603-35-0]

 $C_{18}H_{15}P$

FW 262.29

**► 99%**

T84409-1G 1 g

T84409-25G 25 g

T84409-100G 100 g

T84409-500G 500 g

T84409-1KG 1 kg

► ≥98.5% (GC)

93090-25G 25 g

93090-100G 100 g

► ≥95.0% (GC)

93092-250G 250 g

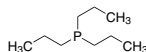
93092-1KG 1 kg

Tripropylphosphine, 97%

[2234-97-1]

 $C_9H_{21}P$

FW 160.24



336971-5G 5 g

336971-25G 25 g

Tris[2-(diphenylphosphino)ethyl]phosphine, 97%

TETRAPHOS-II

[23582-03-8]

 $C_{42}H_{42}P_4$

FW 670.68



327697-1G 1 g

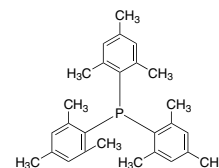
Tris(2,4,6-trimethylphenyl)phosphine, 97%

Trimesitylphosphine

[23897-15-6]

 $C_{27}H_{33}P$

FW 388.52



395080-1G 1 g

395080-5G 5 g

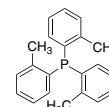
Tri(o-tolyl)phosphine, 97%

Tris(o-tolyl)phosphine

[6163-58-2]

 $C_{21}H_{21}P$

FW 304.37



287822-1G 1 g

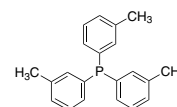
287822-10G 10 g

Tri(m-tolyl)phosphine, 98%

[6224-63-1]

 $C_{21}H_{21}P$

FW 304.37



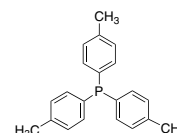
287849-5G 5 g

Tri(p-tolyl)phosphine, 98%

[1038-95-5]

 $C_{21}H_{21}P$

FW 304.37



287830-1G 1 g

287830-5G 5 g

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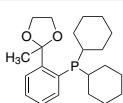
sigma-aldrich.com

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Containing Oxygen

2'-(Dicyclohexylphosphino)acetophenone ethylene ketal, 97%

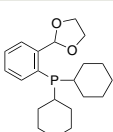
[221187-50-4]
C₂₂H₃₃O₂P
FW 360.47



675709-1G 1 g
675709-5G 5 g

2-(2-Dicyclohexylphosphinophenyl)-1,3-dioxolane, 97%

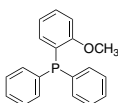
Dicyclohexyl(2-(1,3-dioxolan-2-yl)phenyl)phosphine
[246158-59-8]
C₂₁H₃₁O₂P
FW 346.44



655406-1G 1 g

Diphenyl(2-methoxyphenyl)phosphine, 98%

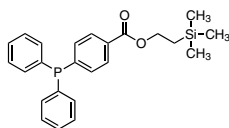
[53111-20-9]
C₁₉H₁₇OP
FW 292.31



287865-1G 1 g
287865-5G 5 g

4-Diphenylphosphanylbenzoic acid, 2-(trimethylsilyl)ethyl ester solution

[566190-45-2]
C₂₄H₂₇O₂PSi
FW 406.53



► 0.5 M in tetrahydrofuran

638013-5ML 5 mL
638013-25ML 25 mL

2-(Diphenylphosphino)benzaldehyde, 97%

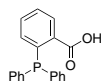
[50777-76-9]
C₁₉H₁₅OP
FW 290.30



326208-1G 1 g

2-(Diphenylphosphino)benzoic acid, 97%

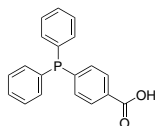
[17261-28-8]
C₁₉H₁₅O₂P
FW 306.30



454885-1G 1 g
454885-5G 5 g

4-(Diphenylphosphino)benzoic acid, 97%

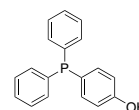
[2129-31-9]
C₁₉H₁₅O₂P
FW 306.30



401595-1G 1 g
401595-5G 5 g

(4-Hydroxyphenyl)diphenylphosphine, 98%

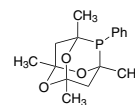
(p-Hydroxyphenyl)diphenylphosphine
[5068-21-3]
C₁₈H₁₅OP
FW 278.28



567728-1G 1 g

1,3,5,7-Tetramethyl-6-phenyl-2,4,8-trioxa-6-phosphaadamante, 97%

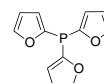
^{me}CgPPH; 1,3,5,7-Tetramethyl-8-phenyl-2,4,6-trioxa-8-phosphatrimethylcyclo[3.3.1.1^{3,7}]decane
[97739-46-3]
C₁₆H₂₁O₃P
FW 292.31



695459-100MG 100 mg
695459-500MG 500 mg
695459-2G 2 g

Tri(2-furyl)phosphine, 99%

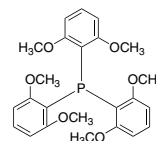
[5518-52-5]
C₁₂H₈O₃P
FW 232.17



383767-250MG 250 mg
383767-1G 1 g

Tris(2,6-dimethoxyphenyl)phosphine, 98%

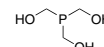
[85417-41-0]
C₂₄H₂₇O₆P
FW 442.44



393436-5G 5 g

Tris(hydroxymethyl)phosphine, 90%

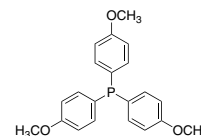
Phosphinidynetrimethanol
[2767-80-8]
C₃H₉O₃P
FW 124.08



177881-25G 25 g

Tris(4-methoxyphenyl)phosphine, 95%

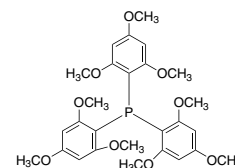
[855-38-9]
C₂₁H₂₁O₃P
FW 352.36



395102-1G 1 g
395102-5G 5 g

Tris(2,4,6-trimethoxyphenyl)phosphine

TTMPP
[91608-15-0]
C₂₇H₃₃O₉P
FW 532.52

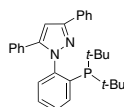


392081-5G 5 g
392081-25G 25 g

Containing Nitrogen

1-[2-[Bis(*tert*-butyl)phosphino]phenyl]-3,5-diphenyl-1*H*-pyrazole, 96%

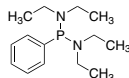
TrippyPhos
[628333-86-8]
C₂₉H₃₃N₂P
FW 440.56



681555-1G 1 g
681555-5G 5 g

Bis(diethylamino)phenylphosphine, 97%

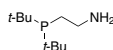
[1636-14-2]
C₁₄H₂₅N₂P
FW 252.34



554707-5G 5 g

2-(Di-*tert*-butylphosphino)ethylamine

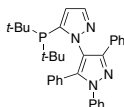
C₁₀H₂₄NP
FW 189.28



697419-250MG 250 mg

5-(Di-*tert*-butylphosphino)-1', 3', 5'-triphenyl-1'*H*-[1,4']bipyrazole, 97%

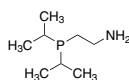
BippyPhos
[894086-00-1]
C₃₂H₃₅N₄P
FW 506.62



676632-250MG 250 mg
676632-1G 1 g

2-(Diisopropylphosphino)ethylamine

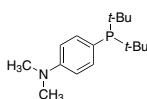
C₈H₂₀NP
FW 161.22



697427-250MG 250 mg

(4-(*N,N*-Dimethylamino)phenyl)di-*tert*-butyl phosphine, 95%

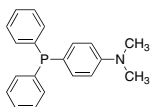
A-^{ts}Phos
C₁₆H₂₈NP
FW 265.37



677264-1G 1 g

4-(Dimethylamino)phenyldiphenylphosphine, 95%

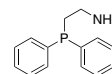
4-(Dimethylamino)triphenylphosphine
[739-58-2]
C₂₀H₂₀N
FW 305.35



395021-1G 1 g
395021-5G 5 g

2-(Diphenylphosphino)ethylamine, ≥95.0% (GC)

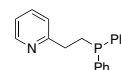
(2-Aminoethyl)diphenylphosphine
[4848-43-5]
C₁₄H₁₆NP
FW 229.26



43162-1G 1 g

2-(2-(Diphenylphosphino)ethyl)pyridine

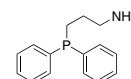
[10150-27-3]
C₁₉H₁₈NP
FW 291.33



695599-100MG 100 mg
695599-500MG 500 mg

3-(Diphenylphosphino)-1-propylamine, ≥90% (GC)

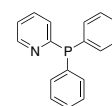
(3-Aminopropyl)diphenylphosphine
[16605-03-1]
C₁₅H₁₈NP
FW 243.28



43163-1G 1 g

Diphenyl-2-pyridylphosphine, 97%

[37943-90-1]
C₁₇H₁₄NP
FW 263.27



392960-1G 1 g
392960-5G 5 g

1,3,5-Triaza-7-phosphaadamantane, 97%

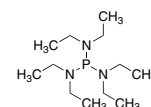
1,3,5-Triaza-7-phosphatricyclo[3.3.1.1^{3,7}]decane; PTA;
1,3,5-Triaza-7-phosphaadamantane; NSC 266642
[53597-69-6]
C₆H₁₂N₃P
FW 157.15



695467-500MG 500 mg
695467-2G 2 g

Tris(diethylamino)phosphine, 97%

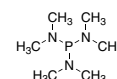
Hexaethylphosphorous triamide
[2283-11-6]
C₁₂H₃₀N₃P
FW 247.36



253189-5G 5 g
253189-25G 25 g

Tris(dimethylamino)phosphine, 97%

HMPT; Hexamethylphosphorous triamide
[1608-26-0]
C₆H₁₈N₃P
FW 163.20



393290-5ML 5 mL
393290-25ML 25 mL

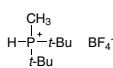
Air Stable Salts

Di-*tert*-butyl(methyl)phosphonium tetrafluoroborate

[870777-30-3]

 $C_9H_{22}BF_4P$

FW 248.05



► 97%

643777-1G 1 g

643777-5G 5 g

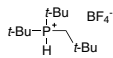
► 97%

653101-1G 1 g

653101-5G 5 g

Di-*tert*-butylneopentylphosphonium tetrafluoroborate, 97%Di-*tert*-butylneopentylphosphine tetrafluoroborate $C_{13}H_{30}BF_4P$

FW 304.16



676179-1G 1 g

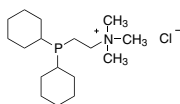
[2-(Dicyclohexylphosphino)ethyl]trimethylammonium chloride

2-(Dicyclohexylphosphinoethyl)trimethylammonium chloride

[181864-78-8]

 $C_{17}H_{35}ClNP$

FW 319.89



574287-1G 1 g

574287-5G 5 g

3-(Diphenylphosphino)benzenesulfonic acid sodium salt, ≥90% (^{31}P -NMR)

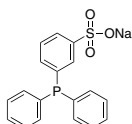
Triphenylphosphine-3-sulfonic acid sodium salt;

Sodium 3-(diphenylphosphino)benzenesulfonate

[63995-75-5]

 $C_{18}H_{14}NaO_3PS$

FW 364.33



43151-250MG 250 mg

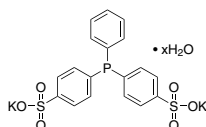
43151-1G 1 g

4,4'-(Phenylphosphinidene)bis(benzenesulfonic acid) dipotassium salt hydrate, 97%

[308103-66-4]

 $C_{18}H_{13}KO_6PS_2 \cdot xH_2O$

FW 459.49 (Anh)



479497-1G 1 g

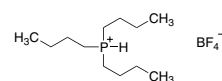
479497-2.5G 2.5 g

Tributylphosphine tetrafluoroborate, 97%

[113978-91-9]

 $C_{12}H_{28}BF_4P$

FW 290.13



576492-1G 1 g

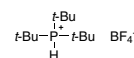
576492-5G 5 g

Tri-*tert*-butylphosphonium tetrafluoroborate, 97%

[131274-22-1]

 $C_{12}H_{28}BF_4P$

FW 290.13



578940-1G 1 g

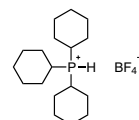
578940-5G 5 g

Tricyclohexylphosphine tetrafluoroborate, 97%

[58656-04-5]

 $C_{18}H_{33}P \cdot HBF_4$

FW 368.24



631493-1G 1 g

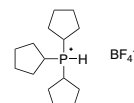
631493-5G 5 g

Tricyclopentylphosphine tetrafluoroborate, 95%

[610756-04-2]

 $C_{15}H_{28}BF_4P$

FW 326.16



673951-1G 1 g

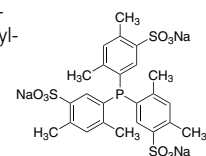
Tris(2,4-dimethyl-5-sulfophenyl)phosphine trisodium salt, 95%

Benzenesulfonic acid, 3', 3'', 3'''-phosphinidyne-tris[4,6-dimethyl-trisodium salt]; Tris(4,6-dimethyl-3-sulfanatophenyl)phosphine trisodium salt

[443150-11-6]

 $C_{24}H_{24}Na_3O_9PS_3$

FW 652.58



667382-500MG 500 mg

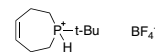
667382-1G 1 g

(Z)-1-*tert*-Butyl-2,3,6,7-tetrahydro-1*H*-phosphepinium tetrafluoroborate

Ellman ligand

 $C_{10}H_{20}BF_4P$

FW 258.04



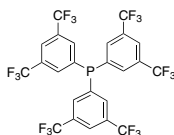
695688-100MG 100 mg

695688-500MG 500 mg

Containing Halide

Tris[3,5-bis(trifluoromethyl)phenyl]phosphine, $\geq 97.0\%$ (^3P -NMR)

[175136-62-6]
 $\text{C}_{24}\text{H}_9\text{F}_{18}\text{P}$
 FW 670.27

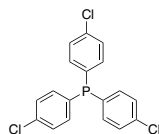


74231-500MG-F

500 mg

Tris(4-chlorophenyl)phosphine, 95%

[1159-54-2]
 $\text{C}_{18}\text{H}_{12}\text{Cl}_3\text{P}$
 FW 365.62

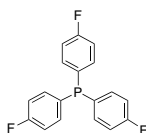


249491-1G

1 g

Tris(4-fluorophenyl)phosphine, 98%

[18437-78-0]
 $\text{C}_{18}\text{H}_{12}\text{F}_3\text{P}$
 FW 316.26



395099-1G

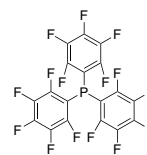
1 g

395099-5G

5 g

Tris(pentafluorophenyl)phosphine, 97%

[1259-35-4]
 $\text{C}_{18}\text{F}_{15}\text{P}$
 FW 532.14

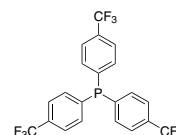


290572-1G

1 g

Tris(4-trifluoromethylphenyl)phosphine, 97%

Tris(*p*-trifluoromethylphenyl)phosphine
 [13406-29-6]
 $\text{C}_{21}\text{H}_{12}\text{F}_9\text{P}$
 FW 466.28



666629-1G

1 g

666629-5G

5 g

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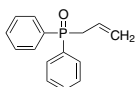
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Phosphine Oxides

Allyldiphenylphosphine oxide, 97%

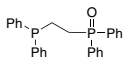
[4141-48-4]
C₁₅H₁₅OP
FW 242.25



477966-10G 10 g

1,2-Bis(diphenylphosphino)ethane monooxide, 97%

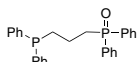
[2-(Diphenylphosphino)ethyl]diphenylphosphine oxide
[984-43-0]
C₂₆H₂₄OP₂
FW 414.42



567124-1G 1 g
567124-5G 5 g

1,3-Bis(diphenylphosphino)propane monooxide, 97%

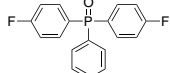
[3-(Diphenylphosphino)propyl]diphenylphosphine oxide
[85685-99-0]
C₂₇H₂₆OP₂
FW 428.44



567116-1G 1 g
567116-5G 5 g

Bis(4-fluorophenyl)phenylphosphine oxide, 97%

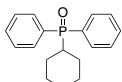
[54300-32-2]
C₁₈H₁₃F₂OP
FW 314.27



454141-1G 1 g
454141-5G 5 g

Cyclohexyldiphenylphosphine oxide, 98%

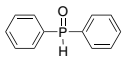
[13689-20-8]
C₁₈H₂₁OP
FW 284.33



454397-1G 1 g
454397-5G 5 g

Diphenylphosphine oxide, 97%

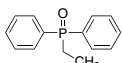
[4559-70-0]
C₁₂H₁₁OP
FW 202.19



287881-1G 1 g
287881-5G 5 g

Ethyldiphenylphosphine oxide, 97%

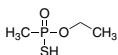
[1733-57-9]
C₁₄H₁₅OP
FW 230.24



454419-5G 5 g
454419-25G 25 g

O-Ethyl methylphosphonothioate, 90%

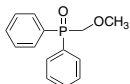
[18005-40-8]
C₃H₉O₂PS
FW 140.14



445037-1G 1 g

(Methoxymethyl)diphenylphosphine oxide, 98%

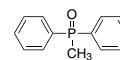
Diphenyl(methoxymethyl)phosphine oxide
[4455-77-0]
C₁₄H₁₅O₂P
FW 246.24



454087-1G 1 g
454087-10G 10 g

Methyldiphenylphosphine oxide, 98%

[2129-89-7]
C₁₃H₁₃OP
FW 216.22



454427-5G 5 g
454427-25G 25 g

3-Methyl-1-phenyl-2-phospholene 1-oxide, 85%

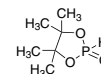
[707-61-9]
C₁₁H₁₃OP
FW 192.19



191744-1G 1 g
191744-10G 10 g

4,4,5,5-Tetramethyl-1,3,2-dioxaphospholane 2-oxide, 95%

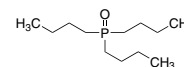
4,4,5,5-Tetramethyl-1,3,2-dioxaphospholan-2-ol; 2-Oxo-4,4,5,5-tetramethyl-1,3,2-dioxaphospholane; Pinacol phosphonate; Phosphonic acid pinacol ester; HASPO-1
[16352-18-4]
C₆H₁₃O₃P
FW 164.14



686344-1G 1 g

Tributylphosphine oxide, 95%

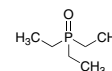
[814-29-9]
C₁₂H₂₇OP
FW 218.32



172766-5G 5 g
172766-25G 25 g

Triethylphosphine oxide, 97%

[597-50-2]
C₆H₁₅OP
FW 134.16

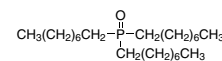


562394-1G 1 g
562394-5G 5 g

Trioctylphosphine oxide

TOPO®

[78-50-2]
C₂₄H₅₁OP
FW 386.63



► 99%

223301-5G 5 g
223301-25G 25 g
223301-100G 100 g

► 90%

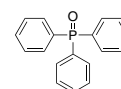
346187-100G 100 g
346187-500G 500 g

► ≥98.5% (GC)

00676-10G 10 g

Triphenylphosphine oxide, 98%

[791-28-6]
C₁₈H₁₅OP
FW 278.28



T84603-25G 25 g
T84603-100G 100 g

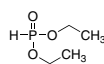
Phosphonites/Phosphinites/Phosphites

Diethyl phosphite, $\geq 99.0\%$ (GC)

[762-04-9]

 $C_4H_{11}O_3P$

FW 138.10



32449-100ML

100 mL

32449-500ML

500 mL

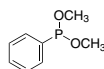
Dimethyl phenylphosphonite, 97%

Dimethoxyphenylphosphine

[2946-61-4]

 $C_8H_{11}O_2P$

FW 170.15



149470-1G

1 g

149470-5G

5 g

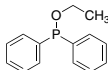
Ethyl diphenylphosphinite, 97%

Diphenylethoxyphosphine

[719-80-2]

 $C_{14}H_{15}OP$

FW 230.24



149489-1G

1 g

149489-5G

5 g

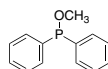
Methyl diphenylphosphinite, 98%

Diphenylmethoxyphosphine

[4020-99-9]

 $C_{13}H_{13}OP$

FW 216.22



149497-1G

1 g

149497-5G

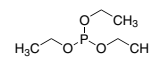
5 g

Triethyl phosphite, 98%

[122-52-1]

 $C_6H_{15}O_3P$

FW 166.16



T61204-5ML

5 mL

T61204-100ML

100 mL

T61204-500ML

500 mL

T61204-4L

4 L

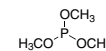
Trimethyl phosphite, $\geq 99\%$

Methyl phosphite

[121-45-9]

 $C_3H_5O_3P$

FW 124.08



240907-25G

25 g

240907-100G

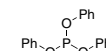
100 g

Triphenyl phosphite, 97%

[101-02-0]

 $C_{18}H_{15}O_3P$

FW 310.28



T84654-5G

5 g

T84654-500G

500 g

T84654-3KG

3 kg

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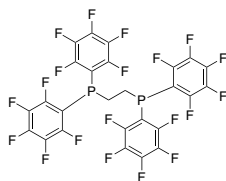
Polydentate Phosphine Ligands

1,2-Bis[bis(pentafluorophenyl)phosphino]ethane

[76858-94-1]

 $C_{26}H_4F_{20}P_2$

FW 758.23



488143-1G

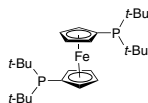
1 g

1,1'-Bis(di-tert-butylphosphino)ferrocene

[84680-95-5]

 $C_{26}H_{44}FeP_2$

FW 474.42



695149-250MG

250 mg

695149-1G

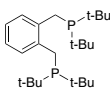
1 g

1,2-Bis(di-tert-butylphosphinomethyl)benzene

[121954-50-5]

 $C_{24}H_{44}P_2$

FW 394.55



631922-1G

1 g

631922-5G

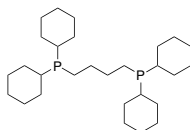
5 g

1,4-Bis(dicyclohexylphosphino)butane

[65038-36-0]

 $C_{28}H_{52}P_2$

FW 450.66



440426-1G

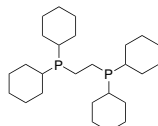
1 g

1,2-Bis(dicyclohexylphosphino)ethane

[23743-26-2]

 $C_{26}H_{48}P_2$

FW 422.61



479500-1G

1 g

479500-5G

5 g

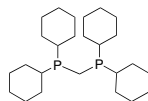
Bis(dicyclohexylphosphino)methane, 95%

Methylenebis(dicyclohexylphosphine)

[137349-65-6]

 $C_{25}H_{46}P_2$

FW 408.58



436437-1G

1 g

436437-5G

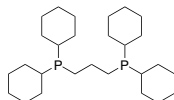
5 g

1,3-Bis(dicyclohexylphosphino)propane, 95%

[103099-52-1]

 $C_{27}H_{50}P_2$

FW 436.63



440418-250MG

250 mg

440418-1G

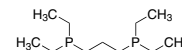
1 g

1,3-Bis(diethylphosphino)propane, ≥95.0% (GC)

[29149-93-7]

 $C_{11}H_{26}P_2$

FW 220.27



14733-500MG

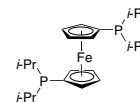
500 mg

1,1'-Bis(diisopropylphosphino)ferrocene, 97%

[97239-80-0]

 $C_{22}H_{36}FeP_2$

FW 418.31



578266-500MG

500 mg

578266-2G

2 g

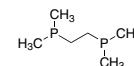
1,2-Bis(dimethylphosphino)ethane, 97%

DMPE; Ethylenebis(dimethylphosphine)

[23936-60-9]

 $C_6H_{16}P_2$

FW 150.14



261939-100MG

100 mg

261939-1G

1 g

261939-5G

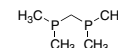
5 g

Bis(dimethylphosphino)methane, 97%

[64065-08-3]

 $C_5H_{14}P_2$

FW 136.11



592684-1G

1 g

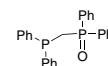
Bis(diphenylphosphine)methane monoxide, 97%

Bis(diphenylphosphinomethyl)diphenylphosphine oxide

[23176-18-3]

 $C_{25}H_{22}OP_2$

FW 400.39



567132-1G

1 g

567132-5G

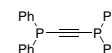
5 g

Bis(diphenylphosphino)acetylene

[5112-95-8]

 $C_{26}H_{20}P_2$

FW 394.38



287954-1G

1 g

287954-5G

5 g

1,2-Bis(diphenylphosphino)benzene, 97%

[13991-08-7]

 $C_{30}H_{24}P_2$

FW 446.46



460273-1G

1 g

460273-5G

5 g

2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene, 97%

(±)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene;

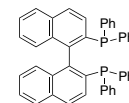
(±)-BINAP; (±)-(1,1'-Binaphthalene-2,2'-diyl)bis(diphenyl-

phosphine)

[98327-87-8]

 $C_{44}H_{32}P_2$

FW 622.67



481084-5G

5 g

481084-25G

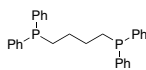
25 g

481084-100G

100 g

1,4-Bis(diphenylphosphino)butane, 98%

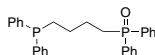
dppb
[7688-25-7]
 $C_{28}H_{28}P_2$
FW 426.47



261947-1G	1 g
261947-5G	5 g
261947-25G	25 g
261947-500G	500 g

1,4-Bis(diphenylphosphino)butane monooxide, 97%

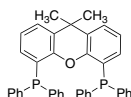
[4-(Diphenyl phosphino)butyl]diphenyl
phosphine oxide
[85686-00-6]
 $C_{28}H_{26}OP_2$
FW 442.47



567108-1G	1 g
567108-5G	5 g

4,5-Bis(diphenylphosphino)-9,9-dimethylxanthene, 97%

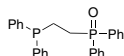
Xantphos
[161265-03-8]
 $C_{39}H_{32}OP_2$
FW 578.62



526460-1G	1 g
526460-5G	5 g
526460-25G	25 g

1,2-Bis(diphenylphosphino)ethane monooxide, 97%

[2-(Diphenylphosphino)ethyl]diphenylphosphine oxide
[984-43-0]
 $C_{26}H_{24}OP_2$
FW 414.42



567124-1G	1 g
567124-5G	5 g

1,1-Bis(diphenylphosphino)ethylene, 98%

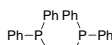
[84494-89-3]
 $C_{26}H_{22}P_2$
FW 396.40



377147-1G	1 g
377147-10G	10 g

cis-1,2-Bis(diphenylphosphino)ethylene, 97%

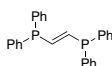
[983-80-2]
 $C_{26}H_{22}P_2$
FW 396.40



327646-1G	1 g
327646-5G	5 g

trans-1,2-Bis(diphenylphosphino)ethylene, 97%

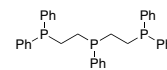
[983-81-3]
 $C_{26}H_{22}P_2$
FW 396.40



287970-1G	1 g
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Bis(2-diphenylphosphinoethyl)phenylphosphine, 97%

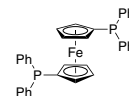
Triphos
[23582-02-7]
 $C_{34}H_{33}P_3$
FW 534.55



259101-1G	1 g
259101-5G	5 g

1,1'-Bis(diphenylphosphino)ferrocene, 97%

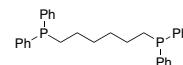
1,1'-Ferrocenediyl-bis(diphenylphosphine);
1,1'-Ferrocenebis(diphenylphosphine)
[12150-46-8]



$C_{34}H_{28}FeP_2$ FW 554.38	
177261-1G	1 g
177261-10G	10 g
177261-25G	25 g

1,6-Bis(diphenylphosphino)hexane, 97%

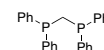
[19845-69-3]
 $C_{30}H_{32}P_2$
FW 454.52



287989-1G	1 g
287989-5G	5 g

Bis(diphenylphosphino)methane, 97%

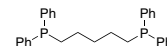
DPM; Methylenebis(diphenylphosphine)
[2071-20-7]
 $C_{25}H_{22}P_2$
FW 384.39



127566-1G	1 g
127566-5G	5 g
127566-25G	25 g

1,5-Bis(diphenylphosphino)pentane, 97%

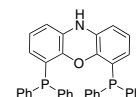
dpppe
[27721-02-4]
 $C_{29}H_{30}P_2$
FW 440.50



287997-1G	1 g
-----------	-----

4,6-Bis(diphenylphosphino)phenoxazine, 97%

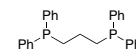
4,6-Bis(diphenylphosphino)-10H-phenoxazine
[261733-18-0]
 $C_{36}H_{27}NOP_2$
FW 551.55



666564-500MG	500 mg
666564-1G	1 g

1,3-Bis(diphenylphosphino)propane, 97%

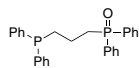
dppp
[6737-42-4]
 $C_{27}H_{26}P_2$
FW 412.44



262048-1G	1 g
262048-5G	5 g
262048-25G	25 g

1,3-Bis(diphenylphosphino)propane monooxide, 97%

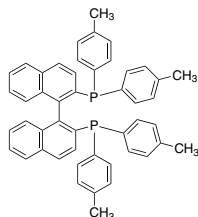
[3-(Diphenylphosphino)propyl]diphenylphosphine oxide
[85685-99-0]
 $C_{27}H_{26}OP_2$
FW 428.44



567116-1G	1 g
567116-5G	5 g

2,2'-Bis(di-*p*-tolylphosphino)-1,1'-binaphthyl, 97%

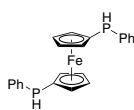
rac-Tol-BINAP
[153305-67-0]
 $C_{48}H_{40}P_2$
FW 678.78



668982-250MG	250 mg
668982-1G	1 g

1,1'-Bis(phenylphosphino)ferrocene

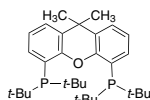
[480444-12-0]
 $C_{22}H_{20}FeP_2$
FW 402.19



555088-1G	1 g
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9,9-Dimethyl-4,5-bis(di-*tert*-butylphosphino)xanthene, 97%

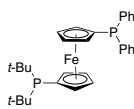
t-Bu-Xantphos
 $C_{31}H_{48}OP_2$
FW 498.66



667196-500MG	500 mg
667196-1G	1 g

1-Diphenylphosphino-1'-(di-*tert*-butylphosphino)ferrocene

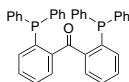
[95408-38-1]
 $C_{30}H_{36}FeP_2$
FW 514.40



555142-1G	1 g
-----------	-----

DPBP-bidentate phosphine, 95%

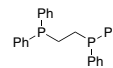
2,2' Bis(diphenylphosphino)benzophenone
[845821-92-3]
 $C_{37}H_{28}OP_2$
FW 550.57



692344-100MG	100 mg
692344-500MG	500 mg

Ethylenebis(diphenylphosphine)

1,2-Bis(diphenylphosphino)ethane; Diphos
[1663-45-2]
 $C_{26}H_{24}P_2$
FW 398.42



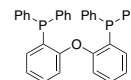
▶ 99%	
376728-1G	1 g
376728-5G	5 g

▶ 97%

106496-10G	10 g
106496-50G	50 g

(Oxydi-2,1-phenylene)bis(diphenylphosphine), 98%

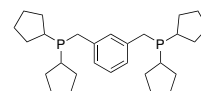
[166330-10-5]
 $C_{36}H_{28}OP_2$
FW 538.55



510017-25G	25 g
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[1,3-Phenylenebis(methylene)]bis(dicyclopentylphosphine), 95%

1,3-Bis(dicyclopentylphosphinomethyl)benzene
[255874-48-7]
 $C_{28}H_{44}P_2$
FW 442.60



680451-100MG	100 mg
680451-500MG	500 mg

1,2-Phenylenebisphosphine, 98%

[80510-04-9]
 $C_6H_8P_2$
FW 142.08



450332-1G	1 g
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Tetraphenylbiphosphine

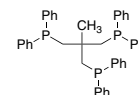
[1101-41-3]
 $C_{24}H_{20}P_2$
FW 370.36



310190-1G	1 g
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1,1,1-Tris(diphenylphosphino-methyl)ethane

Triphos
[22031-12-5]
 $C_{41}H_{39}P_3$
FW 624.67



380741-1G	1 g
380741-5G	5 g

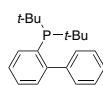
Buchwald Ligands

(2-Biphenyl)di-*tert*-butylphosphine, 97%

2-(Di-*tert*-butylphosphino)biphenyl; JohnPhos;
(2-Biphenyl)di-*tert*-butylphosphine
[224311-51-7]

C₂₀H₂₇P

FW 298.40



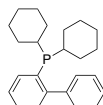
638439-1G	1 g
638439-5G	5 g
638439-25G	25 g

(2-Biphenyl)dicyclohexylphosphine, 97%

2-(Dicyclohexylphosphino)biphenyl; Cyclohexyl JohnPhos
[247940-06-3]

C₂₄H₃₁P

FW 350.48



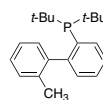
638099-1G	1 g
638099-5G	5 g
638099-25G	25 g

2-Di-*tert*-butylphosphino-2'-methylbiphenyl, 97% NEW

tBuMePhos
[255837-19-5]

C₂₁H₂₉P

FW 312.43



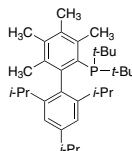
695211-1G	1 g
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2-Di-*tert*-butylphosphino-3,4,5,6-tetramethyl-2',4',6'-triisopropyl-1,1'-biphenyl, 97%

Tetramethyl di-tBuXPhos
[857356-94-6]

C₃₃H₅₃P

FW 480.75



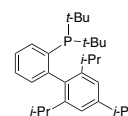
675938-250MG	250 mg
675938-1G	1 g

2-Di-*tert*-butylphosphino-2',4',6'-triisopropylbiphenyl, 97%

tert-Butyl XPhos
[564483-19-8]

C₂₉H₄₅P

FW 424.64



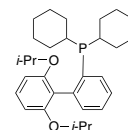
638080-1G	1 g
638080-5G	5 g
638080-25G	25 g

2-Dicyclohexylphosphino-2',6'-diisopropoxybiphenyl, 95%

RuPhos
[787618-22-8]

C₃₀H₄₃O₂P

FW 466.64



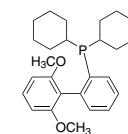
663131-1G	1 g
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2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl, 97%

SPhos
[657408-07-6]

C₂₆H₃₅O₂P

FW 410.53



638072-1G	1 g
638072-5G	5 g
638072-25G	25 g

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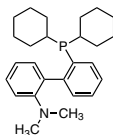


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SIGMA-ALDRICH®

2-Dicyclohexylphosphino-2'-(*N,N*-dimethylamino)biphenyl, 97%

DavePhos
[213697-53-1]
C₂₆H₃₆NP
FW 393.54

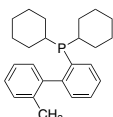


638021-1G	1 g
638021-5G	5 g
638021-25G	25 g

2-Dicyclohexylphosphino-2'-methylbiphenyl, 97%

NEW

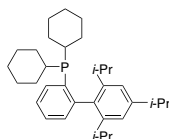
2-Methyl-2'-dicyclohexylphosphinobiphenyl;
MePhos; MebiphPCy2
[251320-86-2]
C₂₅H₃₃P
FW 364.50



695262-1G	1 g
695262-5G	5 g

2-Dicyclohexylphosphino-2',4',6'-triisopropylbiphenyl, 97%

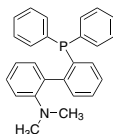
XPhos
[564483-18-7]
C₃₃H₄₉P
FW 476.72



638064-1G	1 g
638064-5G	5 g
638064-25G	25 g

2-Diphenylphosphino-2'-(*N,N*-dimethylamino)biphenyl, 97%

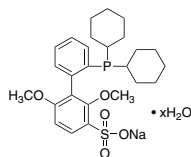
PhDavePhos
[240417-00-9]
C₂₆H₂₄NP
FW 381.45



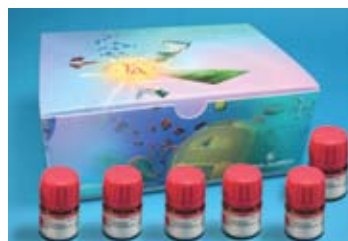
695882-1G	1 g
695882-5G	5 g

Sodium 2'-dicyclohexylphosphino-2,6-dimethoxy-1,1'-biphenyl-3-sulfonate hydrate

SPhos (water soluble)
C₂₆H₃₄NaO₅PS · xH₂O
FW 512.57 (Anh)



677280-500MG	500 mg
677280-2G	2 g

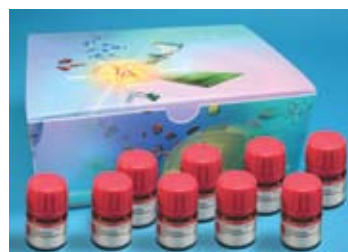
Buchwald Ligands Kit I**Components**

2-Dicyclohexylphosphino-2'-(*N,N*-dimethylamino)biphenyl (Aldrich 638021) 1 g
2-Dicyclohexylphosphino-2',4',6'-triisopropylbiphenyl (Aldrich 638064) 1 g
2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl (Aldrich 638072) 1 g
2-Di-*tert*-butylphosphino-2',4',6'-triisopropylbiphenyl (Aldrich 638080) 1 g
(2-Biphenyl)dicyclohexylphosphine (Aldrich 638099) 1 g
(2-Biphenyl)di-*tert*-butylphosphine (Aldrich 638439) 1 g

659932-1KT	1 kit
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Buchwald Ligands Kit II

NEW

**Components**

(2-Biphenyl)di-*tert*-butylphosphine (Aldrich 638439) 1 g
(2-Biphenyl)dicyclohexylphosphine (Aldrich 638099) 1 g
2-Di-*tert*-butylphosphino-3,4,5,6-tetramethyl-2',4',6'-triisopropyl-1,1'-biphenyl (Aldrich 675938) 250 mg
2-Di-*tert*-butylphosphino-2',4',6'-triisopropylbiphenyl (Aldrich 638080) 1 g
2-Dicyclohexylphosphino-2',6'-diisopropoxybiphenyl (Aldrich 663131) 1 g
2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl (Aldrich 638072) 1 g
2-Dicyclohexylphosphino-2'-(*N,N*-dimethylamino)biphenyl (Aldrich 638021) 1 g
2-Dicyclohexylphosphino-2',4',6'-triisopropylbiphenyl (Aldrich 638064) 1 g
Sodium 2'-dicyclohexylphosphino-2,6-dimethoxy-1,1'-biphenyl-3-sulfonate hydrate (Aldrich 677280) 500 mg

687243-1KT	1 kit
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cataCXium®

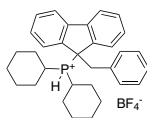
(9-Benzyl-9-fluorenyl)dicyclohexylphosphonium tetrafluoroborate, 98% NEW

(9-Benzyl-9-fluorenyl)dicyclohexylphosphine tetrafluoroborate; cataCXium® FBn
[937378-18-2]

$C_{32}H_{38}BF_4P$
FW 540.42

≥98% (^{31}P -NMR)

691100-1G	1 g
691100-5G	5 g

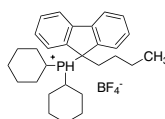
**(9-Butyl-9-fluorenyl)dicyclohexylphosphonium tetrafluoroborate, 98%** NEW

(9-Butyl-9-fluorenyl)dicyclohexylphosphine tetrafluoroborate; cataCXium® FBu

$C_{29}H_{40}BF_4P$
FW 506.41

≥98% (^{31}P -NMR)

672785-1G	1 g
672785-5G	5 g

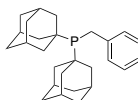
**Di(1-adamantyl)benzylphosphine, 95%** NEW

cataCXium® ABn
[395116-70-8]

$C_{27}H_{37}P$
FW 392.56

≥95% (^{31}P -NMR)

671800-1G	1 g
671800-5G	5 g

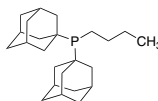
**Di(1-adamantyl)-n-butylphosphine, 98%** NEW

cataCXium® A
[321921-71-5]

$C_{24}H_{39}P$
FW 358.54

≥98% (^{31}P -NMR)

671479-1G	1 g
671479-5G	5 g

**Di(1-adamantyl)-n-butylphosphine hydriodide, 98%** NEW

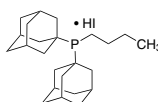
Di(1-adamantyl)-n-butyl-phosphonium iodide;

cataCXium® AHI
[714951-87-8]

$C_{24}H_{40}IP$
FW 486.45

≥98% (^{31}P -NMR)

671584-1G	1 g
671584-5G	5 g

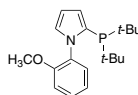
**2-(Di-tert-butyl-phosphino)-1-(2-methoxyphenyl)-1H-pyrrole, 95%** NEW

cataCXium® POMeB

$C_{19}H_{28}NOP$
FW 317.41

≥95% (^{31}P -NMR)

672564-1G	1 g
672564-5G	5 g

**2-(Di-tert-butylphosphino)-1-phenylindole, 98%** NEW

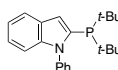
cataCXium® PlntB

[740815-37-6]

$C_{22}H_{28}NP$
FW 337.44

≥98% (^{31}P -NMR)

672343-1G	1 g
672343-5G	5 g

**2-(Di-tert-butyl-phosphino)-1-phenyl-1H-pyrrole, 95%** NEW

cataCXium® PtB

[672937-61-0]

$C_{18}H_{26}NP$

FW 287.38

≥95% (^{31}P -NMR)

672661-1G	1 g
672661-5G	5 g

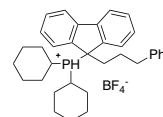
**Dicyclohexyl[9-(3-phenylpropyl)-9-fluorenyl]phosphonium tetrafluoroborate, 98%** NEW

Dicyclohexyl[9-(3-phenylpropyl)-9-fluorenyl] phosphine tetrafluoroborate; cataCXium® FPrPh

$C_{34}H_{42}BF_4P$
FW 568.48

≥98% (^{31}P -NMR)

688681-1G	1 g
688681-5G	5 g

**2-(Dicyclohexylphosphino)-1-(2-methoxyphenyl)-1H-pyrrole, 95%** NEW

cataCXium® POMeCy

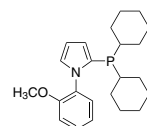
[672937-63-2]

$C_{23}H_{32}NOP$

FW 369.48

≥95% (^{31}P -NMR)

672459-1G	1 g
672459-5G	5 g

**2-(Dicyclohexylphosphino)-1-phenylindole, 98%** NEW

cataCXium® PlnCy

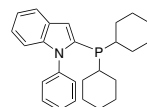
[740815-36-5]

$C_{26}H_{32}NP$

FW 389.51

≥98% (^{31}P -NMR)

672246-1G	1 g
672246-5G	5 g

**2-(Dicyclohexylphosphino)-1-phenyl-1H-pyrrole, 95%** NEW

cataCXium® PCy

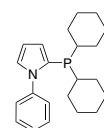
[672937-60-9]

$C_{22}H_{30}NP$

FW 339.45

≥95% (^{31}P -NMR)

672017-1G	1 g
672017-5G	5 g

**2-(Dicyclohexylphosphino)-1-(2,4,6-trimethyl-phenyl)-1H-imidazole, 95%** NEW

2-(Dicyclohexylphosphino)-1-mesityl-1H-imidazole;

cataCXium® PICy

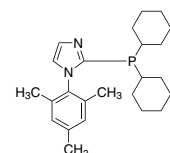
[794527-14-3]

$C_{24}H_{35}N_2P$

FW 382.52

≥95% (^{31}P -NMR)

672122-1G	1 g
672122-5G	5 g

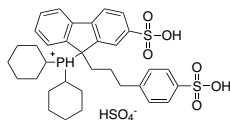


Dicyclohexyl-[2-sulfo-9-[3-(4-sulfo-phenyl)propyl]-9-fluorenyl]phosphonium hydrogensulfate, 95% NEW

cataCXium® FSulf

C₃₄H₄₃O₁₀PS₃

FW 738.87



≥95% (³¹P-NMR)

688800-1G 1 g

688800-5G 5 g

Evonik Ligand Kit for CX Coupling Reactions NEW

cataCXium® Ligand Toolbox



Components

Di(1-adamantyl)-*n*-butylphosphine (Aldrich 671479)
 Di(1-adamantyl)-*n*-butylphosphine hydriodide (Aldrich 671584)
 Di(1-adamantyl)benzylphosphine (Aldrich 671800)
trans-Bis(acetato)bis[*o*-(di-*o*-tolylphosphino)benzyl]dipalladium(II) (Aldrich 671916)
 2-(Dicyclohexylphosphino)-1-phenyl-1*H*-pyrrole (Aldrich 672017)
 2-(Dicyclohexylphosphino)-1-(2,4,6-trimethyl-phenyl)-1*H*-imidazole (Aldrich 672122)
 2-(Dicyclohexylphosphino)-1-phenylindole (Aldrich 672246)
 2-(Di-*tert*-butylphosphino)-1-phenylindole (Aldrich 672343)
 2-(Dicyclohexylphosphino)-1-(2-methoxyphenyl)-1*H*-pyrrole (Aldrich 672459)
 2-(Di-*tert*-butylphosphino)-1-(2-methoxyphenyl)-1*H*-pyrrole (Aldrich 672564)
 2-(Di-*tert*-butylphosphino)-1-phenyl-1*H*-pyrrole (Aldrich 672661)
 (9-Butyl-9-fluorenyl)dicyclohexylphosphonium tetrafluoroborate (Aldrich 672785)
 (9-Benzyl-9-fluorenyl)dicyclohexylphosphonium tetrafluoroborate (Aldrich 691100)
 Dicyclohexyl[9-(3-phenylpropyl)-9-fluorenyl]phosphonium tetrafluoroborate (Aldrich 688681)
 Dicyclohexyl-[2-sulfo-9-[3-(4-sulfo-phenyl)propyl]-9-fluorenyl]phosphonium hydrogensulfate (Aldrich 688800)

671355-1KT 1 kit

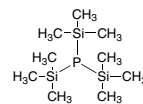
Miscellaneous

Tris(trimethylsilyl)phosphine, 95%

[15573-38-3]

C₉H₂₇PSi₃

FW 250.54



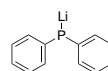
333670-1G 1 g

Lithium diphenylphosphide solution

[65567-06-8]

C₁₂H₁₀LiP

FW 192.12



► 0.5 M in tetrahydrofuran

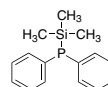
464872-100ML 100 mL

Diphenyl(trimethylsilyl)phosphine

[17154-34-6]

C₁₅H₁₉PSi

FW 258.37



392073-1G 1 g

392073-5G 5 g

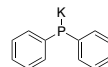
Potassium diphenylphosphide solution

Diphenylphosphine potassium salt

[15475-27-1]

C₁₂H₁₀KP

FW 224.28



► 0.5 M in tetrahydrofuran

380768-100ML 100 mL

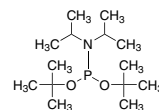
380768-800ML 800 mL

Di-*tert*-butyl *N,N*-diisopropylphosphoramidite, 95%

[137348-86-8]

C₁₄H₃₂NO₂P

FW 277.38



419362-1G 1 g

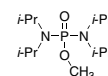
419362-5G 5 g

Methyl *N,N,N',N'*-tetraisopropylphosphorodiamidite, 97%

[92611-10-4]

C₁₃H₃₁N₂OP

FW 262.37



392561-1G 1 g

392561-5G 5 g



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