

# Amphos

[4-(*N,N*-Dimethylamino)phenyl]di-*tert*-butylphosphine



Kanto Reagents

Cross-coupling reaction is well known as one of useful method in Organic Synthetic Chemistry, used widely in many fields, for example, pharmaceuticals, biologically active substances and Material for organic electronics.

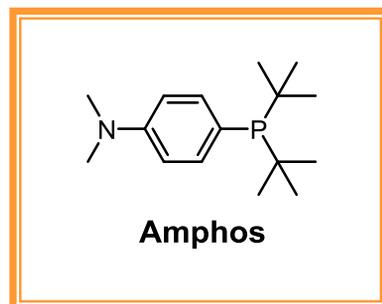
[4-(*N,N*-Dimethylamino)phenyl]di-*tert*-butylphosphine (**Amphos**) is available from Kanto Chemical.

This ligand is highly active because it has high-electron-releasing *t*Bu and also stable, then recently it attracts attention from catalytic chemical fields.

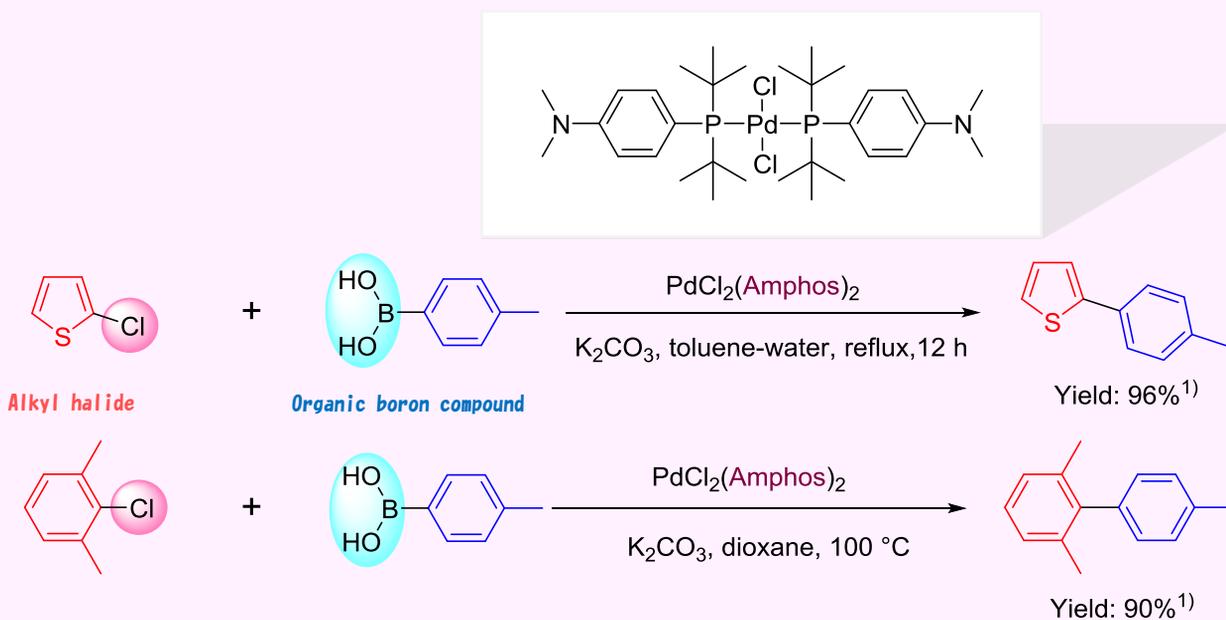
## ★ Features

- Stable & Low enzyme inactivation, possible to handle in a air.
- **Useful for various type cross-coupling reactions**

Ex) Suzuki-Miyaura reaction, Buchwald-Hartwig reaction, Negishi reaction



## [Suzuki-Miyaura coupling reaction] <sup>1)</sup>



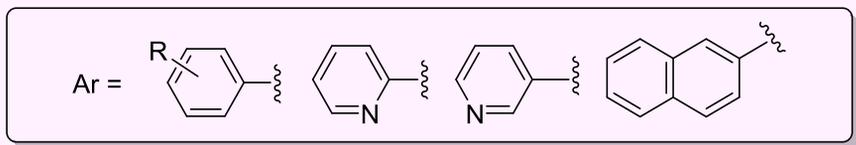
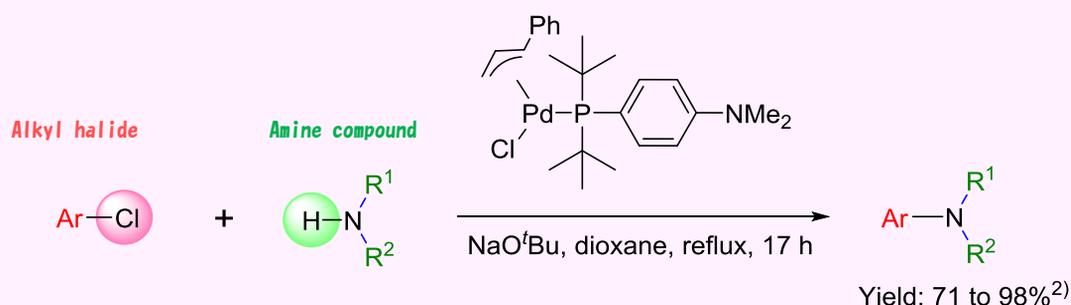
## ★ Product List

Cat. #	Name	Packing Size
11335-55	[4-( <i>N,N</i> -Dimethylamino)phenyl]di- <i>tert</i> -butylphosphine [932710-63-9] FW:265.37	5 g
11335-65		1 g



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**[Buchwald-Hartwig coupling reaction]<sup>2)</sup>**

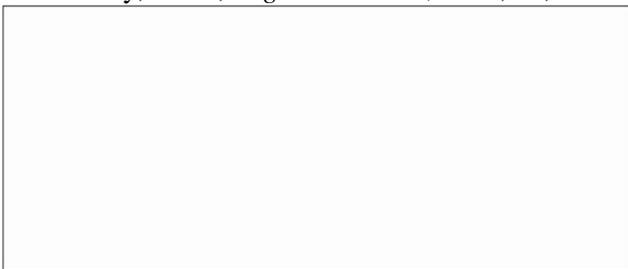


**★ Related products ~ Cross Coupling Ligands and Pd-Catalysts ~**

	Cat. No.	Product Name	Structure	Suzuki-Miyaura	Buchwald-Hartwig	Negishi	Sonogashira	Stability (under Air)
Ligand	11335-55 11335-65	<b>Amphos</b>		○	○	○		○
Buchwald Ligand	11051-55 11051-65	XPhos [564483-18-7] 2-Dicyclohexylphosphino-2',4',6'-triisopropylbiphenyl FW: 476.72		○	○			○
	11049-55 11049-65	SPhos [657408-07-6] 2-Dicyclohexylphosphino-2',6'-dimethoxybiphenyl FW: 410.53		○	○			○
Pd-Catalyst	40864-35 40864-55 40864-65	Pd(PPh <sub>3</sub> ) <sub>4</sub> [14221-01-3] Tetrakis(triphenylphosphine)palladium(0) FW: 1155.56		○		○	○	×
	34868-1A	Pd(dppf)Cl <sub>2</sub> ·CH <sub>2</sub> Cl <sub>2</sub> [95464-05-4] [1,1'-Bis(diphenylphosphino)ferrocene]palladium(II) Dichloride FW: 816.64		○		○		○

**【Reference】**

- 1) A. S. Guram, *et. al.*, *J. Org. Chem.*, **2007**, 72, 5104-5112.
- 2) C. Anthony, *et. al.*, *Organometallics*, **2011**, 30, 4432-4436.



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