

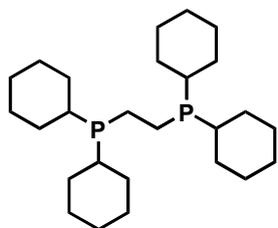
NCI's Bisphosphine Series

Bis(dialkylphosphino)alkanes

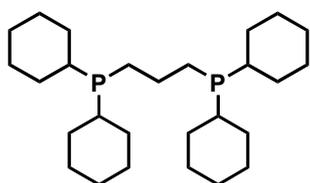
Ver. 1.0

Technical Notes

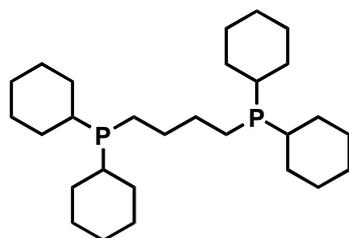
NCI offers the correspondent tetrafluoroborate salts which are air-stable, non-pyrophoric precursors used in a variety of catalytic processes.



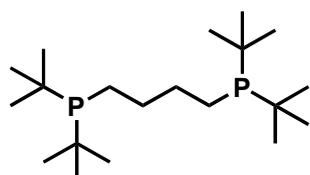
Chemical Name: 1,2-Bis(dicyclohexylphosphino)ethane
Product Name: DCyPE
CAS No.: 23743-26-2



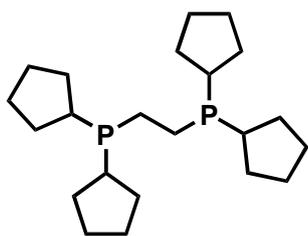
Chemical Name: 1,3-Bis(dicyclohexylphosphino)propane
Product Name: DCyPP
CAS No.: 103099-52-1



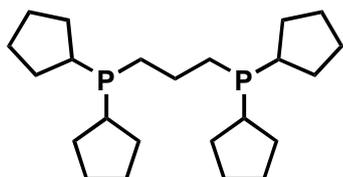
Chemical Name: 1,4-Bis(dicyclohexylphosphino)butane
Product Name: DCyPB
CAS No.: 65038-36-0



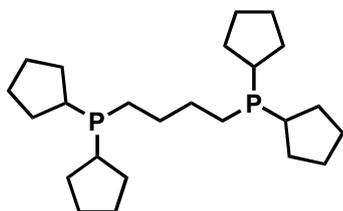
Chemical Name: 1,4-Bis(di-tert-butylphosphino)butane
Product name: DtBPB
Cas No.: 15011-89-0



Chemical Name: 1,2-Bis(dicyclopentylphosphino)ethane
Product Name: DCPPE
CAS No.: 111848-16-9



Chemical Name: 1,3-Bis(dicyclopentylphosphino)propane
Product Name: DCPPP
CAS No.: 149081-88-9



Chemical Name: 1,4-Bis(dicyclopentylphosphino)butane
Product Name: DCPPB
CAS No.: 163106-88-5

Application: Phosphine ligand for C-O coupling

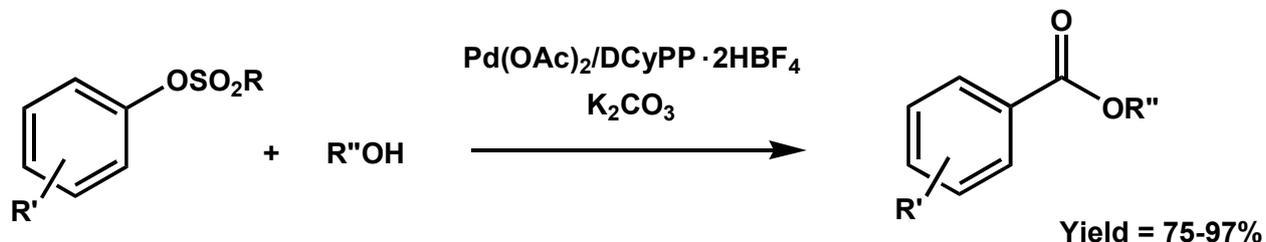
Packing: Please ask representatives for details / glass bottle

Appearance: Crystalline solid

Storage & Handling: These derivatives are susceptible to air oxidation.
They should be stored under an inert gas such as anhydrous nitrogen or argon.
Please refer to Safety Data Sheet for detail.

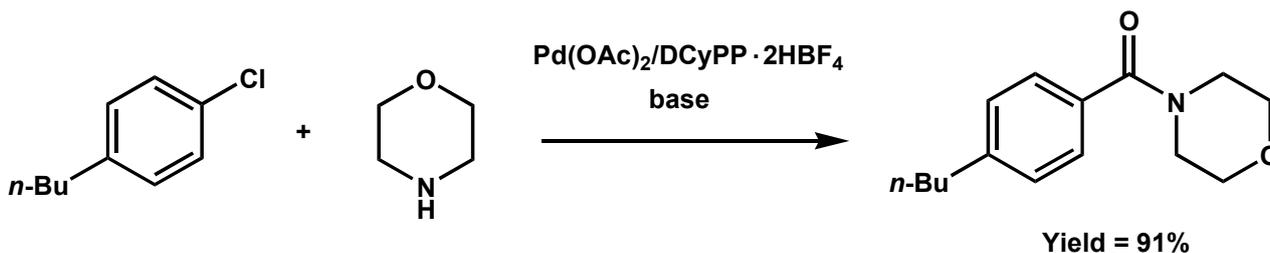
Application of Bis(dialkylphosphino)alkanes

Carbonylation of Aryl Tosylates and Mesylates



S. L. Buchwald *et al.* (MIT), *J. Am. Chem. Soc.*, 130 (9), 2754-2755 (2008)

Aminocarbonylation of Aryl Chlorides



S. L. Buchwald *et al.* (MIT), *Angew. Chem. Int. Ed.*, 2007, 46, 8460-8463

Asia: Nippon Chemical Industrial Co.,Ltd

Specialty Products Sales Dept.

Sales Division

11-1, 9-chome, Kameido, Koto-ku, Tokyo 136-8515, Japan

Tel : +81-3-3636-8081 Fax +81-3-3636-8140

E-mail : orga.sales@nippon-chem.co.jp

USA, EU: JCI USA, Inc.

1311 Mamaroneck Avenue, Suite 145, White Plains, NY 10605

Tel : +1-914-761-6555 Fax : +1-914-761-6940

E-mail : info@jciusa.com

www.nippon-chem.com