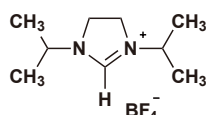
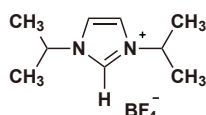


N-Heterocyclic Carbene (NHC) Ligands & Metal Complexes

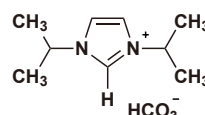
NHC Ligands & Precursors



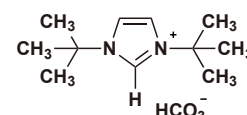
SIIPr-HBF₄
1g / 5g [D3622]



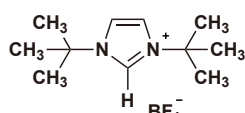
IIPr-HBF₄
1g [D3623]



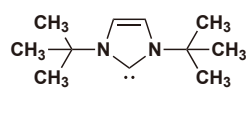
[IIPr(H)][HCO₃]
1g [D5498]



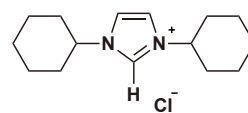
[ItBu(H)][HCO₃]
1g [D5513]



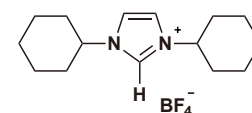
ItBu-HBF₄
1g / 5g [D3711]



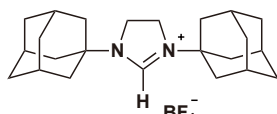
ItBu
1g / 5g [D3472]



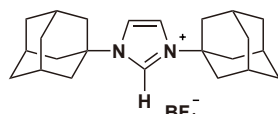
ICy-HCl
1g / 5g [D3882]



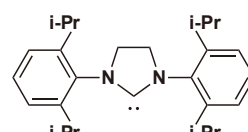
ICy-HBF₄
1g / 5g / 25g [D3850]



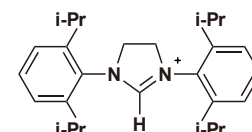
SIAd-HBF₄
500mg [D3620]



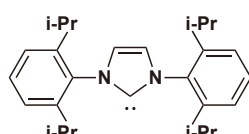
IAd-HBF₄
1g [D3621]



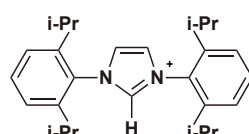
SIPr
1g [B3506]



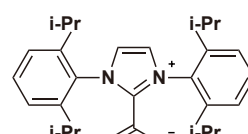
SIPr-HCl
500mg / 1g / 5g [B3157]



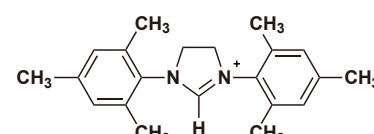
IPr
1g / 5g [B3465]



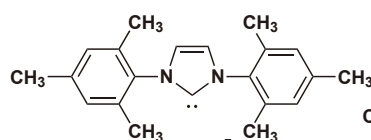
IPr-HCl
500mg / 5g / 25g [D3611]



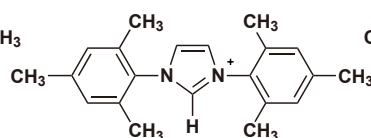
IPr-CO₂
1g [D5603]



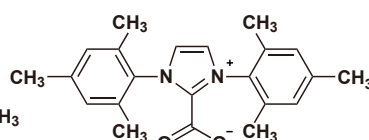
SIMes-HCl
1g / 5g [B3158]



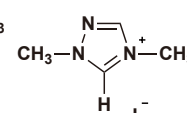
IMes
1g / 5g [D3870]



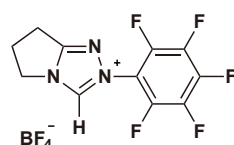
IMes-HCl
1g / 5g [D3446]



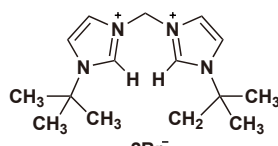
IMes-CO₂
1g [D5401]



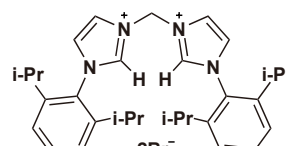
1,4-Dimethyl-1,2,4-triazolium iodide
1g / 5g [D3962]



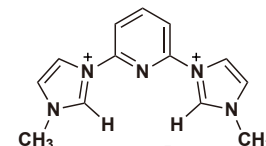
6,7-Dihydro-2-pentafluorophenyl-5H-pyrrolo[2,1-c][1,2,4]triazolium Tetrafluoroborate
200mg [D4624]



3,3'-Methylenebis(1-tert-butyl-3-imidazolium Bromide)
1g / 5g [M2790]



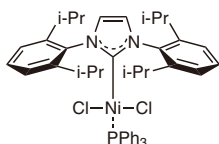
3,3'-Methylenebis[1-(2,6-diisopropylphenyl)-3-imidazolium Bromide]
1g / 5g [M2791]



1,1'-(2,6-Pyridinediyl)-bis(3-methylimidazolium) Dibromide
1g / 5g [P1816]

N-Heterocyclic Carbene (NHC) Ligands & Metal Complexes

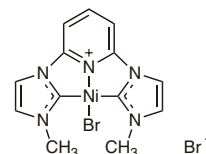
NHC Metal Complexes



[1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene]triphenylphosphine Nickel(II) Dichloride

200mg / 1g [B3235]

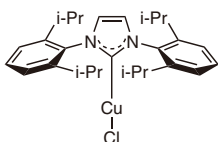
Grignard Cross-coupling Catalyst : *Organometallics* **2006**, 25, 3422.
Cross-coupling Polymerization Catalyst : *J. Am. Chem. Soc.* **2011**, 133, 9700.



Bromo[(2,6-pyridinediyl)bis(3-methyl-1-imidazolyl-2-ylidene)]nickel Bromide

1g [B3354]

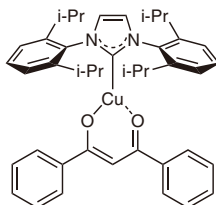
Cross-coupling Catalyst : *Organometallics* **2006**, 25, 3095.



Chloro[1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene]copper(I)

200mg / 1g [C2304]

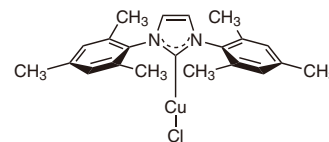
Carboxylation Catalyst with Carbon Dioxide : *Angew. Chem. Int. Ed.* **2010**, 49, 8670.



[1,3-Bis(2,6-diisopropylphenyl)-imidazol-2-ylidene](1,3-diphenyl-1,3-propanedionato)copper(I)

200mg / 1g [C3351]

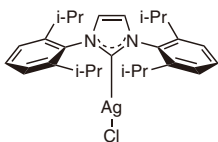
Three-component Tandem Reductive Aldol Reaction Catalyst : *Org. Lett.* **2006**, 8, 6059.



Chloro(1,3-dimesitylimidazol-2-ylidene)copper(I)

200mg / 1g [C2422]

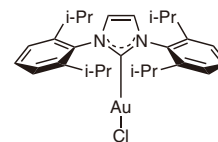
Hydroboration Catalyst of Alkenes : *J. Am. Chem. Soc.* **2009**, 131, 3160.



Chloro[1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene]silver

200mg / 1g [C2373]

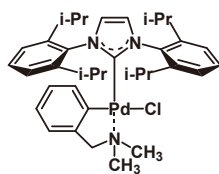
Alkynylation Catalyst of Isatins : *Green Chem.* **2011**, 13, 549.



Chloro[1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene]gold(I)

200mg / 1g [C2405]

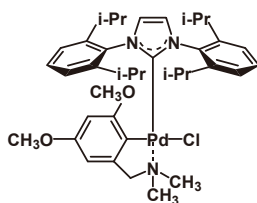
Intramolecular Hydroarylation Catalysis : *Angew. Chem. Int. Ed.* **2006**, 45, 3647.



SingaCycle™-A1

200mg / 1g [C2372]

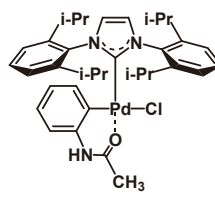
Highly Active Suzuki-Miyaura Coupling Catalyst : *Chem. Eur. J.* **2010**, 16, 4010.



SingaCycle™-A2

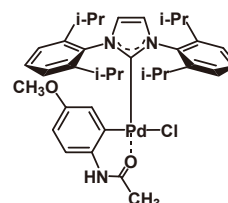
200mg / 1g [C2406]

Highly Active Suzuki-Miyaura Coupling Catalyst : *Chem. Eur. J.* **2010**, 16, 4010.



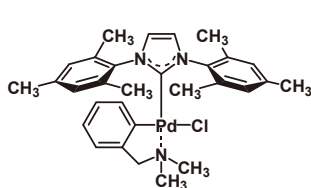
SingaCycle™-A3

200mg / 1g [C2387]



SingaCycle™-A4

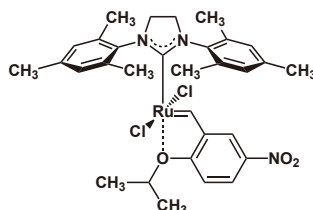
200mg / 1g [C2407]



SingaCycle™-E1

200mg / 1g / 5g [C2347]

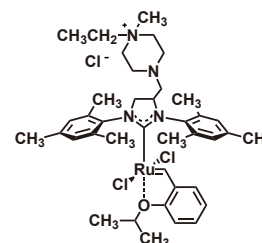
Heck-Mizoroki Reaction Catalyst : *Org. Lett.* **2008**, 10, 3949.



nitro-Grela

100mg / 500mg [N1060]

Olefin Metathesis Catalyst : *Chem. Eur. J.* **2008**, 14, 806.



AquaMet

100mg / 500mg [A3009]

Olefin Metathesis Catalyst : *Catal. Sci. Technol.* **2012**, 2424.

For further information please refer to our website at www.TCIchemicals.com.

NHC



Ordering and Customer Service

TCI AMERICA

Tel : 800-423-8616 / 503-283-1681
Fax : 888-520-1075 / 503-283-1987
E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
Fax : +32 (0)3 735 07 01
E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
Fax : +49 (0)6196 64053-01
E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 784560
Fax : +44 (0)1865 784561
E-mail : Sales-UK@TCIchemicals.com

TCI Chemicals (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
Fax : 044-2262 8902
E-mail : Sales-IN@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
Fax : 021-6712-1385
E-mail : Sales-CN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
Fax : +81 (0)3-5640-8902
E-mail : globalbusiness@TCIchemicals.com

Availability, price or specification of the listed products are subject to change without prior notice. Reproduction forbidden without the prior written consent of Tokyo Chemical Industry Co., Ltd.