## Strem Chemicals, Inc.

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Catalog # 15-0156 (R)-(+)-2,2'-Bis(di-p-tolylphosphino)-6,6'-dimethoxy-1,1'-biphenyl, min. 97%

Note: Sold in collaboration with Solvias for research purposes only. Solvias (R)-MeO-BIPHEP Ligand Kit component.

## **Technical Notes:**

In many respects the catalytic profile of the MeOBIPHEP ligands is similar to that of other atropisomeric diphosphines such as binap and its many analogs. The nature of the PR<sub>2</sub> group strongly influences the catalytic performance of the metal complexes. The rhodium and ruthenium MeO-BIPHEP catalysts are highly effective for the hydrogenation of various C=O, C=C and C=N bonds and several synthetically useful C-C coupling reactions.

- 1. See <u>15-0042</u>
- Ru and Ir catalyzed dynamic kinetic resolution for the synthesis of hydroxy, amino acid derivatives.
- 3. Ru-catalyzed asymmetric hydrogenation of ketones and alkenes.
- 4. Ir catalyzed enantioselective hydrogenation of heteroaromatic compounds.
- 5. Conjugate addition using 2-heteroaryl titanates and zinc reagents.

OMe 
$$Ru, L, H_2$$
 OMe  $Ru, L, H_2$  Tech. Note (3)  $Ref. (3)$ 

R'  $Ref. (4)$ 

Ref. (4)

Ref. (5)

## References:

- 1. Adv. Synth. Catal., 2004, 346, 842.
- 2. Org. Lett., 2006, 8, 4573.
- 3. Org. Process Res. Devel., 2001, 5, 438.
- 4. J. Am. Chem. Soc., 2003, 125, 10536.
- 5 Org. Lett., **2009**, 11, 4200.