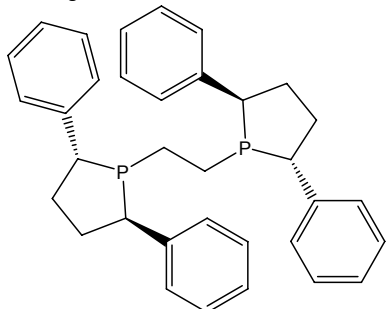


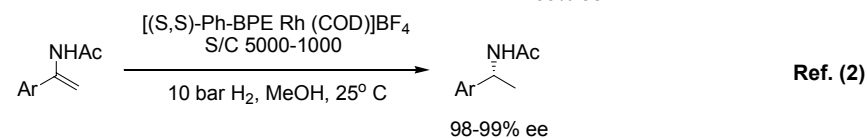
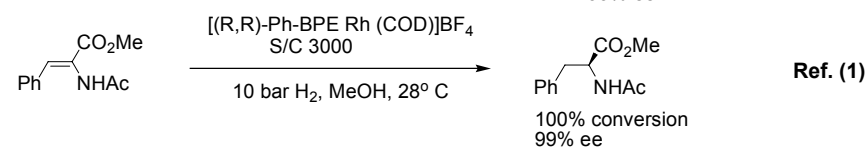
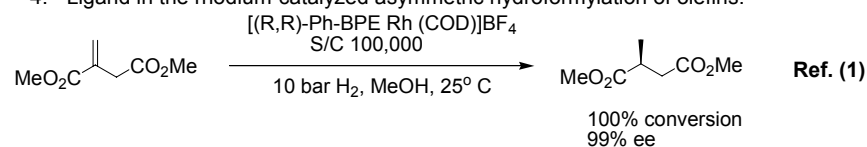
Catalog # 15-0473 (-)-1,2-Bis((2R,5R)-2,5-diphenylphospholano)ethane, min. 98% (R,R)-Ph-BPE



Note: Manufactured under US Patent 5,021,131 and US Patent 5,171,892.

Technical Notes:

1. Phenyl-BPE exhibits enhanced activity and selectivity over existing members of the BPE ligand family in rhodium catalysed asymmetric hydrogenation.
2. This ligand is highly efficient for the hydrogenation of *N*-acyl aryl-enamides.
3. Molar substrate/catalyst ratios of up to 100,000/1 are achieved with excellent reactivity and enantioselectivity using commercial grade substrates and solvents.
4. Ligand in the rhodium-catalyzed asymmetric hydroformylation of olefins.



References:

1. *Org. Lett.*, **2003**, 5, 1273.
2. *Tetrahedron Lett.*, **2004**, 45, 9277.
3. *Angew. Chem. Int. Ed.*, **2005**, 44, 5834.