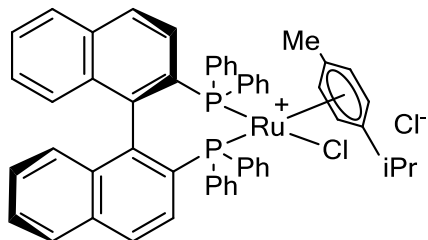


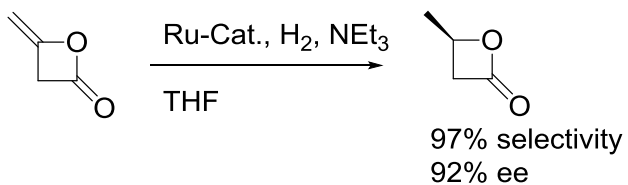
Catalog # 44-0084 Chloro[(R)-(+)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl](p-cymene)ruthenium(II) chloride [RuCl(p-cymene)((R)-binap)]Cl



Note: Sold in collaboration with Takasago.

Technical Note:

1. An efficient catalytic asymmetric hydrogenation of diketene.



Reference:

1. *J. Chem. Soc., Chem. Chem. Commun.* **1992**, 1725.