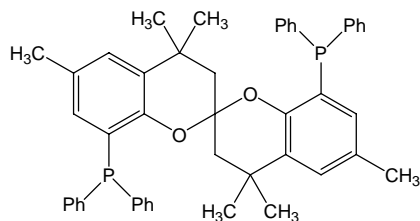


Catalog # 15-5165 racemic-8,8'-Bis(diphenylphosphino)-3,3',4,4'-tetrahydro-4,4,4',4',6,6'-hexamethyl-2,2'-spirobi[2H-1-benzopyran], min. 95% [556797-94-5]



Technical Note:

1. A binucleating diphosphine ligand used as a trans-spanning ligand which rigidly links mutually trans coordination sites via phosphorous atoms separated by a large distance to form a cavity over the face of square planar mono and di-metallic complexes, e.g. in $MCl_2(\text{SPANphos})$ ($M = \text{Pd}, \text{Pt}$), $\text{Rh}_2(\mu\text{-Cl})_2(\text{CO})_2(\text{SPANphos})$, the latter useful in, for example, the homogeneous catalytic carbonylation of methanol to acetic acid.

References:

1. *Angew. Chem. Int. Ed.*, **2003**, *42*, 1284.
2. *Angew. Chem. Int. Ed.*, **2005**, *44*, 4385.