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Catalog # 15-8392

[S(R)]-N-[(1S)-2-(Diphenylphosphino)-1-[2-(diphenylphosphino)phenyl]ethyl]-2-methyl-2-propanesulfinamide, 95%

$$\begin{array}{c} Ph_2P \\ O \\ I \\ S \\ N \\ H \end{array}$$

#### **Technical Notes:**

- 1. Chiral sulfinamide bisphosphine catalysts for highly enantioselective intermolecular cross-Rauhut-Currier reactions.
- 2. Used in phosphine-catalyzed asymmetric intermolecular cross-vinylogous Rauhut-Currier Reactions of vinyl Ketones with *para*-quinone methides.
- 3. Used in the enantioselective phosphine-catalyzed allylic alkylations of *mix*-indene with MBH carbonates.
- 4. Ligand for the Pd-catalyzed fast and living polymerizations of various diazoacetate monomers under mild conditions.
- 5. Ligand for the direct Pd-catalyzed cross-coupling reaction of easily accessible secondary phosphine oxides and aryl bromides, which provides rapid access to P-chiral phosphine oxides.

$$R^{1} \longrightarrow COR^{2} \longrightarrow R$$

$$R^{1} \longrightarrow COR^{2}$$

$$R^{1} \longrightarrow COR^{2}$$

$$R^{2} \longrightarrow R$$

$$R^{2} \longrightarrow R^{2}$$

$$R^{2}$$

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$$\begin{array}{c} \text{Me O} \\ \text{P} \\ \text{H} \end{array} + R^2 \stackrel{\text{II}}{=} \begin{array}{c} \text{Br} \\ \text{Cs}_2 \text{CO}_3, \text{ anisole, } 35^{\circ}\text{C} \end{array} \begin{array}{c} \text{Me O} \\ \text{Ref. (5)} \end{array}$$

#### References:

- 1. Angew. Chem. Int. Ed. 2015, 54, 14853.
- 2. ACS Catal. 2017, 7, 2805.
- 3. Org. Lett. 2017, 19, 6080.
- 4. J. Am. Chem. Soc. 2018, 140, 17773.
- 5. J. Am. Chem. Soc. 2019, 141, 20556.