## Strem Chemicals, Inc.

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Catalog # 26-1270 (R,S(p),R(SPO)-(1-t-Butylphosphinoyl)-2-[1-(diphenylphosphino)ethyl]ferrocene, min. 97% JoSPOphos

Note: Sold in collaboration with Solvias for research purposes only.

## Technical Notes:

- 1. Ligands used for the Rh-catalyzed asymmetric hydrogenation of functionalized alkenes.
- 2. Ligands used for the Ru-catalyzed asymmetric hydrogenation of  $\beta$ -ketoesters.
- 3. Ligands used for the Rh-catalyzed asymmetric hydrogenation of  $\alpha$ -ketoesters.
- 4. Ligand for the highly selective coupling of benzotriazoles with allenes.

$$\begin{array}{c} \text{R} \\ \text{R} \\ \text{R} \\ \text{HN} \\ \text{O} \\ \\ \text{O} \\ \\ \text{E} \\ \text{IDgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{O} \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{O} \\ \text{OMe} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{OMe} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{OO_2Et} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)_2]BF_4} \\ \text{IEgand} \\ \text{[RuCl_2(p-cymene)]_2} \\ \text{OO_2Et} \\ \\ \text{IEgand} \\ \text{[RuCl_2(p-cymene)]_2} \\ \text{OO_2Et} \\ \\ \text{IEgand} \\ \text{[Rh(nbd)Cl]_2} \\ \text{IEgand} \\$$

## Reference:

- 1. Angew. Chem. Int. Ed., 2010, 49, 6873.
- 2. Angew. Chem. Int. Ed., 2014, 53, 7268.