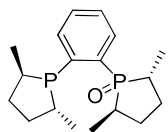
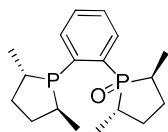




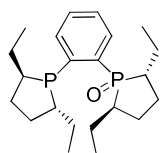
## BozPhos Phospholane Ligands<sup>1</sup>



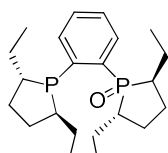
**K15-0065**  
**(R,R)-Me-BozPhos, ≥97.0%**  
 (-)-(2R,5R)-1-{2-[(2R,5R)-2,5-Dimethylphospholan-1-yl]phenyl}-2,5-dimethylphospholane 1-oxide  
 $C_{18}H_{28}OP_2$ ; F.W: 322.36; [638132-66-8]



**K15-0066**  
**(S,S)-Me-BozPhos, ≥97.0%**  
 (+)-(2S,5S)-1-{2-[(2R,5R)-2,5-Dimethylphospholan-1-yl]phenyl}-2,5-dimethylphospholane 1-oxide  
 $C_{18}H_{28}OP_2$ ; F.W: 322.36

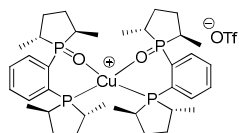


**K15-0073**  
**(R,R)-Et-BozPhos, ≥97.0%**  
 (2R,5R)-1-{2-[(2R,5R)-2,5-Diethylphospholan-1-yl]phenyl}-2,5-diethylphospholane 1-oxide  
 $C_{22}H_{36}OP_2$ ; F.W: 378.47; [924294-55-3]

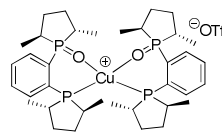


**K15-0074**  
**(S,S)-Et-BozPhos, ≥97.0%**  
 (2S,5S)-1-{2-[(2S,5S)-2,5-Diethylphospholan-1-yl]phenyl}-2,5-diethylphospholane 1-oxide  
 $C_{22}H_{36}OP_2$ ; F.W: 378.47

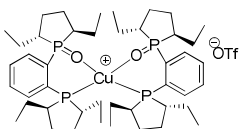
## Copper BozPhos Phospholane Catalysts<sup>1</sup>



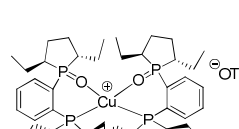
**K29-0001**  
**(((R,R)-Me-BozPhos)<sub>2</sub>Cu]OTf, ≥97.0%**  
 Bis[(2R,5R)-1-{2-[(2R,5R)-2,5-Dimethylphospholan-1-yl]phenyl}-2,5-dimethylphospholane 1-oxide] Copper(I) Triflate  
 $C_{37}H_{56}CuF_3O_5P_4S$ ; F.W: 857.34; [874013-62-4]



**K29-0002**  
**(((S,S)-Me-BozPhos)<sub>2</sub>Cu]OTf, ≥97.0%**  
 Bis[(2S,5S)-1-{2-[(2S,5S)-2,5-Dimethylphospholan-1-yl]phenyl}-2,5-dimethylphospholane 1-oxide] Copper(I) Triflate  
 $C_{37}H_{56}CuF_3O_5P_4S$ ; F.W: 857.34

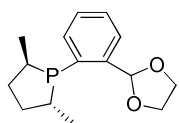


**K29-0003**  
**(((R,R)-Et-BozPhos)<sub>2</sub>Cu]OTf, ≥97.0%**  
 Bis[(2R,5R)-1-{2-[(2R,5R)-2,5-Diethylphospholan-1-yl]phenyl}-2,5-diethylphospholane 1-oxide] Copper(I) Triflate  
 $C_{45}H_{72}CuF_3O_5P_4S$ ; F.W: 969.55

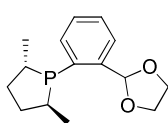


**K29-0004**  
**(((S,S)-Et-BozPhos)<sub>2</sub>Cu]OTf, ≥97.0%**  
 Bis[(2S,5S)-1-{2-[(2S,5S)-2,5-Diethylphospholan-1-yl]phenyl}-2,5-diethylphospholane 1-oxide] Copper(I) Triflate  
 $C_{45}H_{72}CuF_3O_5P_4S$ ; F.W: 969.55

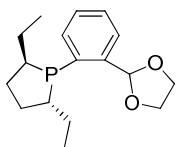
## RajPhos™ Phospholane Ligands<sup>1</sup>



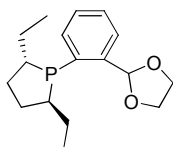
**K15-0061**  
**(R,R)-Me-RajPhos, ≥97.0%**  
 (-)-(2R,5R)-1-(2-(1,3-dioxolan-2-yl)phenyl)-2,5-dimethylphospholane  
 $C_{15}H_{21}O_2P$ ; F.W: 264.3; [1044256-04-3]



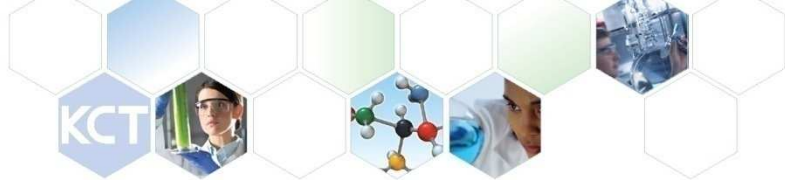
**K15-0062**  
**(S,S)-Me-RajPhos, ≥97.0%**  
 (+)-(2S,5S)-1-(2-(1,3-dioxolan-2-yl)phenyl)-2,5-dimethylphospholane  
 $C_{15}H_{21}O_2P$ ; F.W: 264.3; [695816-47-8]



**K15-0063**  
**(R,R)-Et-RajPhos, ≥97.0%**  
 (+)-(2R,5R)-1-(2-(1,3-dioxolan-2-yl)phenyl)-2,5-diethylphospholane  
 $C_{17}H_{25}O_2P$ ; F.W: 292.35

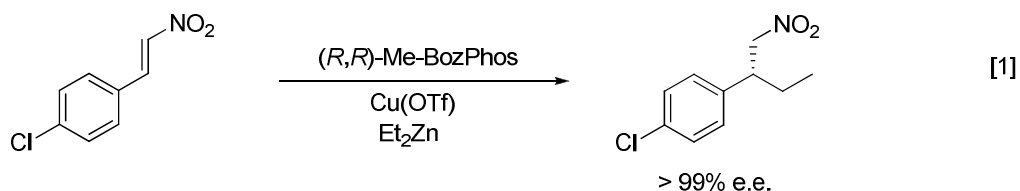


**K15-0064**  
**(S,S)-Et-RajPhos, ≥97.0%**  
 (-)-(2S,5S)-1-(2-(1,3-dioxolan-2-yl)phenyl)-2,5-diethylphospholane  
 $C_{17}H_{25}O_2P$ ; F.W: 292.35

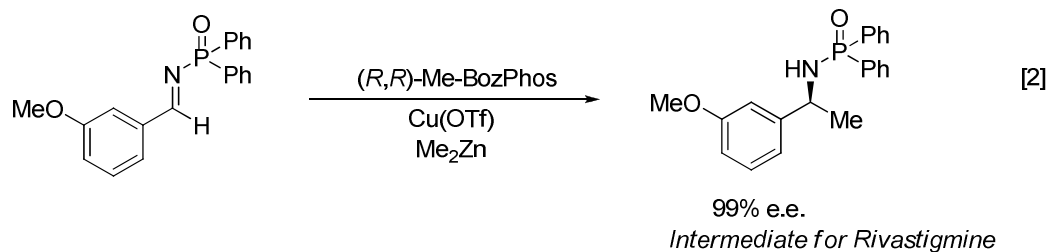


The use of chiral bis(phosphine) monoxide ligands has found widespread application in catalysis. Me-BozPhos is a very effective ligand for the enantioselective copper-catalyzed addition of dialkylzinc reagents to  $\beta$ -nitroalkenes and *N*-Phosphinoylimines providing respectively access to valuable nitroalkanes and chiral amines precursors. (Reactions 1-2).<sup>2-3</sup> Excellent enantiomeric excess can also be obtained for the synthesis of alkyl sulfones (Reaction 3).<sup>4</sup> Very high yields (>99%), selectivities (for the desired 3-arylbutenes, >99%), turnover numbers and e.e. (91%) are obtained by hydrovinylation of styrenes using RajPhos ligands (Reaction 5).<sup>5</sup>

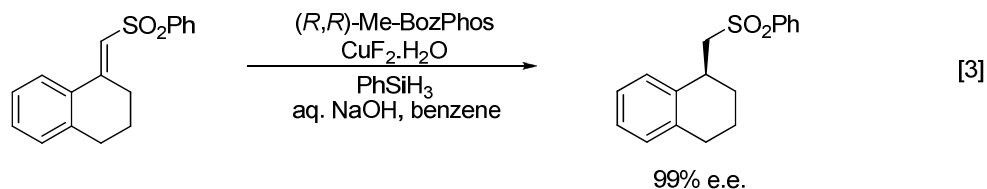
#### Enantioselective Addition of Dialkylzinc to $\beta$ -Nitroalkenes:<sup>2</sup>



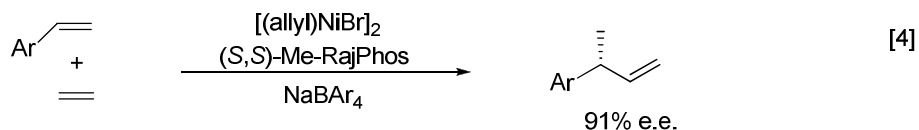
#### Enantioselective Addition of Dialkylzinc to *N*-Phosphinoylimines:<sup>3</sup>



#### Enantioselective Reduction of $\beta,\beta$ -Disubstituted Vinyl Phenyl Sulfones:<sup>4</sup>



#### Asymmetric Hydrovinylation of Styrenes:<sup>5</sup>



#### References

1. Sold under license from Dupont for research purposes.
2. Côté, A. *et al. Org. Lett.* **2007**, 9, 85.
3. Boezio A. A. *et al. J. Am. Chem. Soc.* **2003**, 125, 14260.
4. Desrosiers, J.N. *et al. J. Angew. Chem. Int. Ed.* **2007**, 46, 5955.
5. Zhang, A. *et al. Org. Lett.* **2004**, 6, 1515.