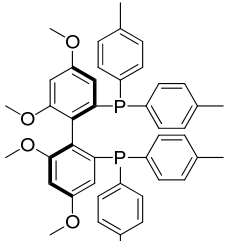
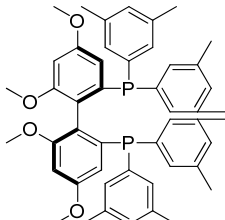
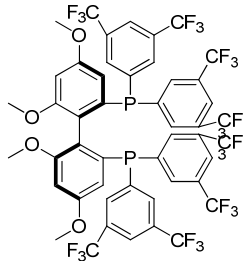
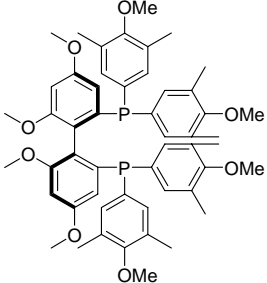
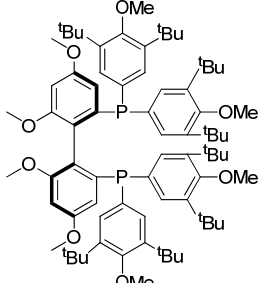






 <p><b>15-1653 (R)-Ph-Garphos™</b> <b>15-1654 (S)-Ph-Garphos™</b></p>	 <p><b>15-1657 (R)-Tol-Garphos™</b> <b>15-1658 (S)-Tol-Garphos™</b></p>	 <p><b>15-1661 (R)-Xyl-Garphos™</b> <b>15-1662 (S)-Xyl-Garphos™</b></p>
 <p><b>15-1663 (R)-BTFM-Garphos™</b> <b>15-1664 (S)-BTFM-Garphos™</b></p>	 <p><b>15-1666 (R)-DMM-Garphos™</b> <b>15-1667 (S)-DMM-Garphos™</b></p>	 <p><b>15-1672 (R)-DTBM-Garphos™</b> <b>15-1673 (S)-DTBM-Garphos™</b></p>
(R) structures shown		

<b>96-4100</b>	<b>Garphos™ Ligand Kit</b> Components available for individual sale. Contains 100mg unit size of the following items:	1kit
<b>15-1661</b> 	<b>(R)-2,2'-Bis[bis(3,5-dimethylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97%</b> <b>(R)-Xyl-Garphos™</b> C <sub>48</sub> H <sub>52</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 754.87; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1662</b> 	<b>(S)-2,2'-Bis[bis(3,5-dimethylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97%</b> <b>(S)-Xyl-Garphos™</b> C <sub>48</sub> H <sub>52</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 754.87; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1672</b> 	<b>(R)-2,2'-Bis[bis(4-methoxy-3,5-di-t-butylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97%</b> <b>(R)-DTBM-Garphos™</b> C <sub>76</sub> H <sub>108</sub> O <sub>8</sub> P <sub>2</sub> ; FW: 1211.61; white xtl. <i>air sensitive, light sensitive</i>	100mg 500mg
<b>15-1673</b> 	<b>(S)-2,2'-Bis[bis(4-methoxy-3,5-di-t-butylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97%</b> <b>(S)-DTBM-Garphos™</b> C <sub>76</sub> H <sub>108</sub> O <sub>8</sub> P <sub>2</sub> ; FW: 1211.61; white xtl. <i>air sensitive, light sensitive.</i>	100mg 500mg
<b>15-1666</b> 	<b>(R)-2,2'-Bis[bis(4-methoxy-3,5-dimethylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97%</b> <b>(R)-DMM-Garphos™</b> C <sub>52</sub> H <sub>60</sub> O <sub>8</sub> P <sub>2</sub> ; FW: 874.98; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1667</b> 	<b>(S)-2,2'-Bis[bis(4-methoxy-3,5-dimethylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97%</b> <b>(S)-DMM-Garphos™</b> C <sub>52</sub> H <sub>60</sub> O <sub>8</sub> P <sub>2</sub> ; FW: 874.98; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		

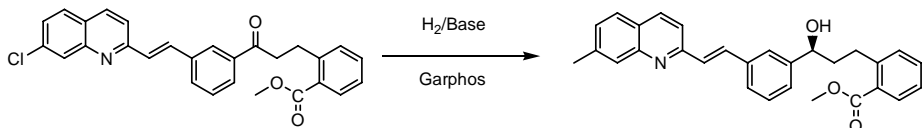
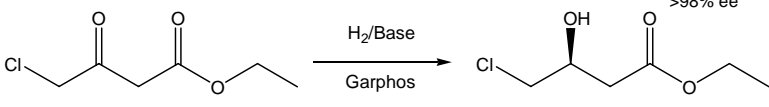
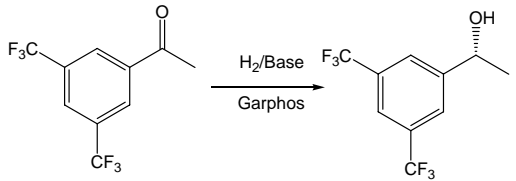
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<b>15-1663</b> <b>NEW→</b>	<b>(R)-2,2'-Bis[bis(3,5-trifluoromethylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97% (R)-BTfM-Garphos™</b> C <sub>48</sub> H <sub>28</sub> F <sub>24</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 1186.64; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1664</b> <b>NEW→</b>	<b>(S)-2,2'-Bis[bis(3,5-trifluoromethylphenyl)phosphino]-4,4',6,6'-tetramethoxybiphenyl, min. 97% (S)-BTfM-Garphos™</b> C <sub>48</sub> H <sub>28</sub> F <sub>24</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 1186.64; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1653</b> <b>NEW→</b>	<b>(R)-2,2'-Bis(diphenylphosphino)-4,4',6,6'-tetramethoxybiphenyl, min. 97% (R)-Ph-Garphos™</b> C <sub>40</sub> H <sub>36</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 642.66; white xtl.	100mg 500mg
Technical Note: 1. Chiral ligand used in the preparation of hydrogenation catalysts with exceptionally high activity and selectivity.		
		<b>Tech. Note. (1)</b> <b>Ref. (1)</b>
		<b>Tech. Note. (2)</b> <b>Ref. (1)</b>
		<b>Tech. Note. (3)</b> <b>Ref. (1)</b>
Reference: 1. US Patent Application No. 61/381,493.		
<b>15-1654</b> <b>NEW→</b>	<b>(S)-2,2'-Bis(diphenylphosphino)-4,4',6,6'-tetramethoxybiphenyl, min. 97% (S)-Ph-Garphos™</b> C <sub>40</sub> H <sub>36</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 642.66; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1657</b> <b>NEW→</b>	<b>(R)-2,2'-Bis(di-p-tolylphosphino)-4,4',6,6'-tetramethoxybiphenyl, min. 97% (R)-Tol-Garphos™</b> C <sub>44</sub> H <sub>44</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 698.77; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>15-1658</b> <b>NEW→</b>	<b>(S)-2,2'-Bis(di-p-tolylphosphino)-4,4',6,6'-tetramethoxybiphenyl, min. 97% (S)-Tol-Garphos™</b> C <sub>44</sub> H <sub>44</sub> O <sub>4</sub> P <sub>2</sub> ; FW: 698.77; white xtl.	100mg 500mg
Technical Note: 1. See 15-1653.		
<b>air sensitive</b>		
Note: Sold in collaboration with KCT. Patent US App No. 61/381,493.		

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