Strem Chemicals, Inc

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Catalog # 08-1266 (R)-2,2',3,3'-Tetrahydro-1,1'-spirobi[1H-indene]-7,7'-dicarboxylic Acid

Technical Notes

- 1. Ligand component used in Pd-catalyzed asymmetric allylation of aldehydes with allylic alcohols.
- 2. Ligand component used in Cu-catalyzed asymmetric cyclopropanation and allylic oxidation.
- 3. Ligand component used in Cu-catalyzed enantioselective allylic oxidation of acyclic olefins.
- 4. Ligand component for Ir-catalyzed asymmetric hydrogenation of β-acylamino nitroolefins.
- 5. Used in the mild catalytic synthesis of 2-oxazolines via oxetane ring-opening.

$$R^{1} OH Et_{3}B, THF, 25^{\circ}C$$

$$QH Et_{3}B, THF, 25^{\circ}C$$

$$R^{2} R^{1}$$

Tech. Note (1); Ref. (1)

$$\begin{array}{c} & & & \\ & &$$

Tech. Note (3); Ref. (3)

$$\begin{array}{c} \text{HN} \\ \text{HN} \\ \text{R} \\ \text{NO}_2 \end{array} \xrightarrow{\text{H}_2 \text{ (20 atm); CH}_2\text{Cl}_2, 80^{\circ}\text{C}} \xrightarrow{\text{HN}} \begin{array}{c} \text{O} \\ \text{HN} \\ \text{R} \\ \text{NO}_2 \end{array}$$

Tech. Note (4); Ref. (4)

Tech. Note (5); Ref. (5)

References:

- 1. Org. Lett., 2005, 7, 2333.
- 2. Tetrahedron Asymmetry 2006, 17, 634.
- 3. Tetrahedron Letters **2013**, *54*, 2665.
- 4. Chem. Commun., 2014, 50, 12870.
- 5. Chem. Sci., 2019, 10, 9586.