## Strem Chemicals, Inc.

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## Catalog # 07-6312 N,N'-(1R,2R)-1,2-Cyclohexanediylbis[N'-[3,5-bis(trifluoromethyl)phenyl]thiourea]



**Technical Notes:** 

- 1. **Baylis-Hillman Reaction:** A new chiral bis-thiourea-type organocatalyst developed for the Baylis-Hillman reaction provided a drastic rate enhancement. Allylic alcohols were obtained with up to 90% ee in the case of cyclohexanecarboxaldehyde.
- 2. **Mannich Reaction:** The first asymmetric Mannich-type reaction of stabilized phosphorus ylides and N-Boc aldimines was described promoted by a readily available and recyclable chiral bisthiourea organocatalyst.
- 3. **Benzoylation:** A new concept for asymmetric nucleophilic catalysis is presented. Acyl pyridinium salts derived from 4-(dimethylamino)pyridine (DMAP) and benzoic anhydride are rendered chiral via interaction with a chiral thiourea anion receptor.



## References:

- 1. Tetrahedron Lett., 2004, 45, 5589-5592.
- 2. J. Am. Chem. Soc., 2008, 130, 2456-2457.
- 3. J. Am. Chem. Soc., 2009, 131, 17060-17061.