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Catalog # 11-1635 CALLERY™ Sodium tert-amylate, 25% in Toluene

Technical Notes:

- 1. Used in the synthesis of efficient small molecule bulk heterojunction solar cells containing electron-deficient diketopyrrolopyrrole core with electron-rich pyrene end-groups.
- 2. Base promoting *N*-cyanation diverse range of cyclic and acyclic secondary amines using trichloroacetonitrile.
- 3. Used in the synthesis efficient and ultra-stable near-infrared organic light emitting diodes (OLEDs) based on diketopyrrolopyrrole derivatives.
- 4. Used in the deoxycyanamidation of alcohols with N-cyano-N-phenyl-pmethylbenzenesulfonamide (NCTS).
- 5. Base additive for the NHC/Cu-catalyzed direct alkylation of terminal alkynes with non-activated alkyl triflates.
- 6. Used in tandem [3 + 2] cycloaddition/reductive cyclization of nitrochalcones with activated methylene isocyanides for the efficient synthesis of pyrrolo[2,3-b]-quinolones.
- 7. Used in the CO₂-induced ROCO₂Na/ROCO₂H buffer solution promoted the carboxylative cyclization of propargyl alcohol to synthesize cyclic carbonates.

$$R^{1}-OH + \frac{CN}{Ts} \frac{NaO^{t}Am, TBAI}{N} \frac{CN}{R^{1}} \frac{CN}{N} \frac{Tech Note (4)}{Ref. (4)}$$

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$$R^{1} \stackrel{\text{II}}{=} NO_{2}$$

$$R^{2} + NC \qquad R^{3} \stackrel{\text{NaOtAm, EtOH}}{=} R^{1} \stackrel{\text{II}}{=} NO_{2}$$

$$R^{1} \stackrel{\text{II}}{=} NO_{2}$$

$$R^{2} + NC \qquad R^{3} \stackrel{\text{NaOtAm, EtOH}}{=} R^{3}$$

$$R^{2} + NC \qquad R^{3} \stackrel{\text{Tech Note (6)}}{=} R^{2}$$

$$R^{1} \stackrel{\text{II}}{=} NO_{2}$$

$$R^{2} + NC \qquad R^{3} \stackrel{\text{NaOtAm}}{=} R^{3}$$

$$R^{2} \stackrel{\text{Tech Note (6)}}{=} R^{2}$$

$$R^{2} \stackrel{\text{NaOtAm}}{=} R^{3}$$

References:

- 1. Adv. Mater. 2011, 23, 5359.
- 2. Org. Lett. 2016, 18, 5528.
- 3. Sci. Rep. 2016, 6, 34096.
- 4. Org. Lett. 2017, 19, 3835.
- 5. Chem. Commun., 2017, 53, 4124.
- 6. Org. Lett. 2017, 19, 5284.
- 7. Catal. Sci. Technol., 2020, 10, 736.