TPGS-750-M: A Second-Generation Amphiphile for Metal-Catalyzed Cross-

Couplings in Water at Room Temperature

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Supporting Information

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General Informationss: All reactions were performed either in a round bottom flask or 2-5 mL microwave reactor vials under an argon atmosphere containing a Teflon coated stir bar and septum. A stock solution of 2, 2.5, 3, and 5% (w/w) TPGS-750-M in ultrapure degassed H₂O were made and stored in a sealed serum bottle on the bench-top. Column chromatography was performed using 60 Å flash silica gel. Thin-Layer-Chromatography analysis was conducted using commercially available silica gel 60 F₂₅₄ plates. Nuclear Magnetic Resonance spectra were obtained in CDCl₃, with proton and carbon resonances at 400 and 100 MHz, respectively, and are referenced to the residual solvent signal at 7.27 ppm for ¹H and δ 77.23 ppm for ¹³C. Data for ¹H are reported as follows: chemical shift (δ ppm), multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet, sep = septet), coupling constant and integration. Data for ¹³C NMR are reported in terms of chemical shift. Infrared spectra were obtained either neat or by thinflim on NaCl plates and are reported as cm⁻¹. All commercially available reagents were used without further purification. Zinc powder 99.9% (-325 mesh) and zinc dust 97.5% (-325 mesh) were purchased from Strem Chemicals (catalog #93-3060 and #93-3056) and was stored in the glove box. PdCl₂(Amphos)₂ (CAS #887919-35-9) was obtained from Johnson Matthey (Pd-132, catalog #C4138). Grubbs second generation catalysts were obtained from Materia, Inc. and stored in a glove box under an Ar atmosphere.













































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EtO₂C Table 6, Entry 3



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