## A facile synthesis of poly(ethylene-co-butylene)-blockpoly(ethylene oxide) surfactant by click reaction and its use in the synthesis of polyhydroxyethyl methacrylate nanoparticles containing Disperse Red 1

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Figure S1. <sup>1</sup>H NMR spectra of DR1 (bottom) and DR1-MA (top).



Figure S2. <sup>1</sup>H NMR spectra of poly(ethylene glycol) methyl ether (bottom), tosylated product (**2**) (middle), and azide product (**3**) (top).



Figure S3. <sup>13</sup>C NMR spectra of poly(ethylene glycol) methyl ether (bottom), tosylated product (**2**) (middle), and azide product (**3**) (top).



Figure 4. <sup>1</sup>H NMR spectra of Kraton liquid (bottom) and of its alkyne functionalized product **1** (top).



Figure S5. <sup>13</sup>C NMR spectra of Kraton liquid (bottom) and of its alkyne functionalized product **1** (top).



Figure S6. <sup>1</sup>H NMR spectrum of KLE surfactant.



Figure 7S. <sup>13</sup>C NMR spectrum of KLE surfactant.



Figure 8S. <sup>1</sup>H NMR spectrum of surfactant **4a**.



Figure 9S. <sup>13</sup>C NMR spectrum of surfactant **4a**.



Figure 10S. <sup>1</sup>H NMR spectrum of surfactant **4b**.



Figure S11. <sup>13</sup>C NMR spectrum of surfactant **4b**.



Figure S12. <sup>13</sup>C NMR spectra of surfactant Kle (bottom), **4a** (middle), and **4b** (top).



Figure S13. GPC elugram of NP1 in DMF.



Figure S14. GPC elugram of NP4 in DMF.



Figure S15. GPC elugram of NP5 in DMF.



Figure S16. GPC elugram of NP7 in DMF.



Figure S16. GPC elugram of NP8 in DMF.



Figure S17. GPC elugram of NP9 in DMF.



Figure S18. GPC elugram of NP10 in DMF.