Supporting information for

Synthesis of Microcapsules via Reactive Surfactants.

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I- P(MMA/HEMA) macroinitiators
II- P(MMA/HEMA)-b-PDMAEMA polymers
III- ¹H-NMR non-ionic inisurf
IV- Microcapsules Using Ionic Inisurfs P(MMA/HEMA)-b-PDMAEMA
I- P(MMA/HEMA) macroinitiators

**Figure S1A:** Evolution of $M_n$ and $M_w/M_n$ with time for the polymerisation of MMA and HEMA using EBIB as initiator at 75°C in toluene (50% v/v). (■) [MMA]:[HEMA] = [100]:[0], (▲) [MMA]:[HEMA] = [95]:[5], (▲) [MMA]:[HEMA] = [90]:[10], (▽) [MMA]:[HEMA] = [85]:[15], (●) [MMA]:[HEMA] = [80]:[20], (◇) [MMA]:[HEMA] = [70]:[30].

**Figure S1B:** First-order kinetic plot for the polymerisation of MMA and HEMA at 75°C in toluene (50% v/v). (■) [MMA]:[HEMA] = [100]:[0], (●) [MMA]:[HEMA] = [95]:[5], (▲) [MMA]:[HEMA] = [90]:[10], (▽) [MMA]:[HEMA] = [85]:[15], (◇) [MMA]:[HEMA] = [80]:[20], (◇) [MMA]:[HEMA] = [70]:[30].
Figure S2A: First-order kinetic plot for the polymerisation of MMA and HEMA at 70°C in toluene (50% v/v) with a poly(ethylene) glycol initiator DP 113. (■) [MMA]:[HEMA] = [100]:[0], (○) [MMA]:[HEMA] = [95]:[5], (▲) [MMA]:[HEMA] = [90]:[10], (∇) [MMA]:[HEMA] = [85]:[15], (♦) [MMA]:[HEMA] = [80]:[20]

Figure S2B: Evolution of $M_n$ and $M_w/M_n$ with time for the polymerisation of MMA and HEMA at 70°C in toluene (50% v/v) with poly(ethylene) glycol initiator DP 113. (■) [MMA]:[HEMA] = [100]:[0], (○) [MMA]:[HEMA] = [95]:[5], (▲) [MMA]:[HEMA] = [90]:[10], (∇) [MMA]:[HEMA] = [85]:[15], (♦) [MMA]:[HEMA] = [80]:[20]
II- P(MMA/HEMA)-b-PDMAEMA polymers

Figure S3: Evolution of $M_n$ and $M_w/M_n$ with time for the polymerisation of DMAEMA with various P(MMA/HEMA) macrorinitiators at 100°C in toluene (40% v/v). (■) [MMA]:[HEMA] = [100]:[0], (○) [MMA]:[HEMA] = [95]:[5], (▲) [MMA]:[HEMA] = [90]:[10], (▽) [MMA]:[HEMA] = [85]:[15].

III- $^1$H-NMR non-ionic inisurf

Figure S4: NMR spectrums of PEG-b-P(MMA/HEMA) and PEG-b-P(MMA/HEMA) non-ionic inisurfs in CDCl$_3$. 
IV- Microcapsules Using ionic inisurfs P(MMA/HEMA)-b-PDMAEMA

Figure S5: First order kinetic plot for the encapsulation reaction of a P(MMA/HEMA)-b-PDMAEMA Inisurf with various concentrations of hexadecane, at 75°C using 2 wt% inisurf with respect to oil phase; P(MMA/HEMA)-b-PDMAEMA inisurf ([MMA]:[HEMA] = [85]:[15], PDMAEMA DP = 50, 25% quaternized, P(MMA/HEM DP = 20); [Water Phase]:[Oil Phase] = 3:1. (■) [BMA]:[Hexadecane] = [99]:[1], (◊) [BMA]:[Hexadecane] = [93]:[7], (▼) [BMA]:[Hexadecane] = [86]:[14], (▲) [BMA]:[Hexadecane] = [79]:[21].