

## Supplementary materials

### **Sustained delivery of prilocaine and lidocaine using depot microemulsion system: *In vitro*, *ex vivo* and *in vivo* animal studies**

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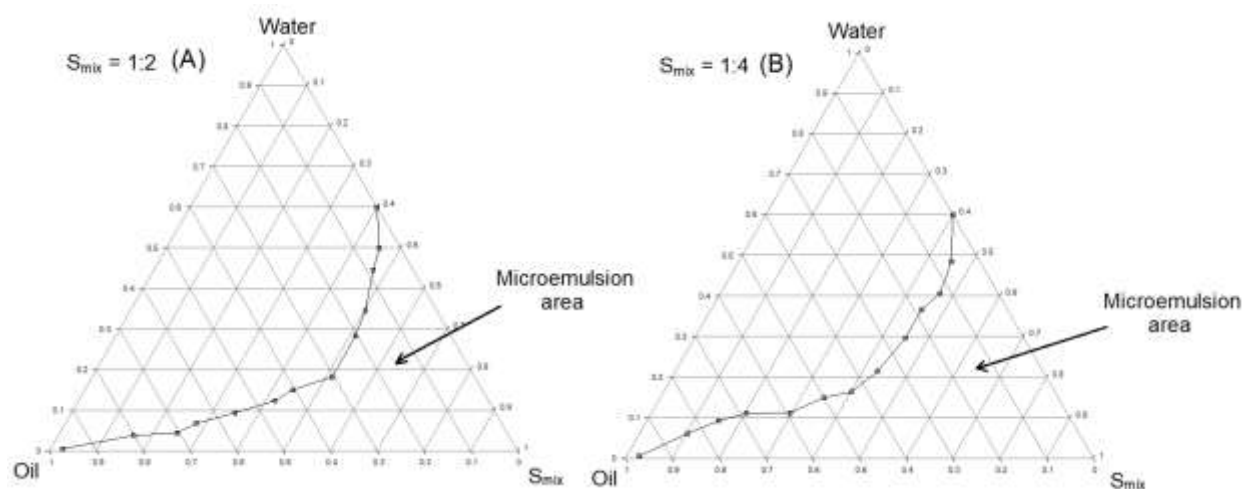
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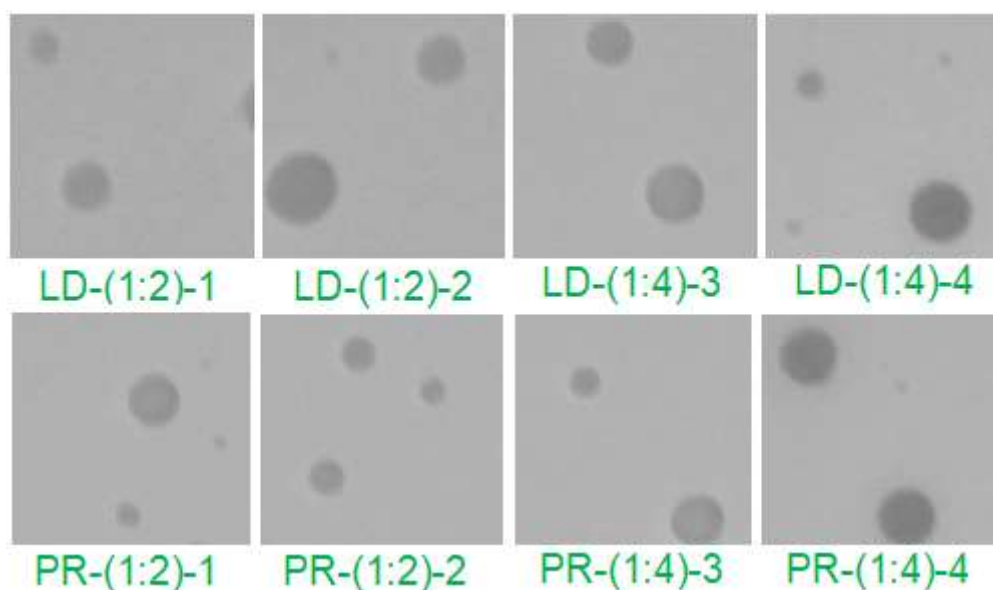
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## Supplementary material Part I: Pseudo-ternary phase diagrams



**Fig. SM-1.** Pseudo-ternary phase diagrams at  $S_{mix}$  [1:2 (A) and 1:4 (B)].  $S_{mix}$  = Pluronic F127: PEG 200.

## Supplementary material Part II: TEM images



### Supplementary material Part III: Stability of microemulsions with time

**Table**

Transmittance data of LD-(1:4)-3 and PR-(1:4)-3 batches.

Batches	Day-1	Day-30	Day-60	Day-90
LD-(1:4)-3	98.2 ± 0.2	99.1 ± 0.1	98.8 ± 0.2	99.1 ± 0.2
PR-(1:4)-3	99.5 ± 0.1	98.8 ± 0.2	99.6 ± 0.1	99.4 ± 0.2

### Supplementary material Part IV: Thermodynamic stability

**Table**

Thermodynamic stability data of lidocaine and prilocaine loaded microemulsions.

Batches	Visual appearance	Centrifugation	Heating-cooling cycles	Freeze thaw cycles
LD-(1:2)-1	Transparent	√	√	×
LD-(1:2)-2	Transparent	√	√	×
LD-(1:4)-3	Transparent	√	√	√
LD-(1:4)-4	Transparent	√	√	√
PR-(1:2)-1	Transparent	√	√	×
PR-(1:2)-2	Transparent	√	√	×
PR-(1:4)-3	Transparent	√	√	√
PR-(1:4)-4	Transparent	√	√	√

### Supplementary material Part V: Skin irritation study images

Marketed ointment USP



LD-(1:4)-4



PR-(1:4)-4

