

performing visual and microscopic (10x) observations. The dispersion droplet dimension was measured by adding few drops of the dispersion on a glass slide for observation under Olympus® BX51 Polarizing Microscope fitted with Digital Camera at initial, 1 hour, and 2 hours time points. In-between the time points the dispersions were stored at room temperature with out disturbance.

## Results

The visual examination of the developed prototypes with combination of excipients showed that either they remained intact as a uniform single layer or separated into two distinguishable layers.

The visual observation of the prototypes in the SGF demonstrated formation of droplets, which meant that the developed placebo prototypes were stable in the SGF. Most of the prototypes visually looked hazy in nature while the prototypes which visually showed to have precipitated were not considered for microscopic observation. The formation of droplets at micron size indicates that the high HLB value excipients demonstrate stability in the GI environment.

Among many prototype combinations evaluated the inclusion of ethanol with equal proportions of high HLB value Cremophor EL and low HLB value Miglyol 812 and lower proportion of high HLB value Labrasol demonstrated droplets between 21 to 60 micron size (figure 1). This indicates that the combination with low and high HLB value excipients demonstrate stability in the gastrointestinal (GI) environment. Also, observed is the fact that this prototype had small droplets and was less varied in droplet size.

