ABSTRACT

DOSAGE FORM CHARACTERIZATION AND DRUG RELEASE TEST OF DICLOFENAC SODIUM WITH MICROEMULSION W/O SYSTEM FROM HPC GEL BASE
(Microemulsion w/o with ratio use of surfactant Span 80-Tween80 : cosurfactant Ethanol 96% = 6:1)

Deena Rismayaka Asmaradhani

The present study was made to characterized the dosage form and to investigate the release profile of diclofenac sodium. The pseudo ternary phase diagrams for the combination of soybean oil, water, and Span 80 and Tween 80 : ethanol 96% = 6/1 was used to make the microemulsion formula. Microemulsion obtained was mixed with gel base consisted of HPC and propylenglycol, as formula I. Formulation of diclofenac sodium emulsion gel based was used as control formula (formula II). The result of characterization showed that formula I had thicker consistency than formula II. PH of formula I was 6.77 ± 0.03 and formula II was 6.73 ± 0.05. Spread diameter of zero load for formula I was 6.62 ± 0.06 cm and formula II was 12.97 ± 0.60 cm. Dissolution test was carried out to evaluate diclofenac sodium release, the result of this test is flux of diclofenac sodium. The rate of diclofenac sodium flux of formula I was 47.3409 ± 0.2546 per cm² per minute

Keyword(s) : diclofenac sodium, microemulsion, drug release, HPC.