

INTISARI

ZAINUDDIN, SUCIATY. 2016. FORMULASI UJI MUTU FISIK AKTIVITAS KRIM KOMBINASI EKSTRAK HERBA PEGAGAN (*Centella asiatica* L.) DAN MINYAK ZAITUN SEBAGAI TABIR SURYA SECARA *IN VITRO*, TESIS, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Pegagan mengandung senyawa flavanoid yang dapat diaplikasikan sebagai tabir surya untuk mencegah radiasi sinar ultraviolet. *Pegagan dan minyak zaitun* diformulasikan dalam sediaan *krim* agar mudah digunakan. Penelitian ini bertujuan untuk mengetahui pengaruh variasi konsentrasi herba pegagan dan minyak zaitun terhadap sifat fisik dan nilai *sun protecting factor* (SPF) sediaan *krim* anti surya.

Ekstrak herba pegagan diperoleh dengan metode maserasi menggunakan pelarut etanol 96%. Pengukuran nilai SPF secara *in vitro* menggunakan spektrofotometer ultraviolet-visibel. SPF dihitung dan diplotkan dengan konsentrasi menggunakan metode regresi non linier. Formulasi ekstrak herba pegagan dan minyak zaitun dalam sediaan *krim* menggunakan variasi konsentrasi F1 (5%;0,1%), F2 (10%;0,1%), dan F3 (20%;0,1%). Uji stabilitas sifat fisik sediaan *krim* meliputi pemeriksaan organoleptik, homogenitas, viskositas, daya sebar, tipe *krim* dan pH. Hasil diuji secara statistik menggunakan anova dua jalan dengan taraf kepercayaan 95%.

Hasil analisis secara *in vitro* menunjukkan bahwa ekstrak herba pegagan dan minyak zaitun memiliki tingkat kemampuan tabir surya dengan nilai SPF berturut-turut 28,5 (Proteksi ultra); 29,9 (Proteksi ultra); dan 37(Proteksi ultra).

Kata kunci :Herba pegagan, Flavonoid, d, Nilai SPF, Tabir Surya.

ABSTRACT

ZAINUDDIN, SUCIATY. 2016. FORMULATION QUALITY TEST OF PHYSICAL ACTIVITY COMBINED EXTRACT CREAM HERB PEGAGAN (CENTELLA ASIATICA L.) AND OLIVE OIL AS A SUNSCREEN IN VITRO, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Extract herb pegagan consists of flavanoid compound that can be applied as sun filter to prevent ultraviolet radiation. *Herb extract pegagan and olive oil* has been prepared in cream dosage form due to its easy to use. The aims of this research was to determine varying concentrations of physical properties and sun protecting factor (SPF) value of sunscreen lotion.

Extract herb pegagan and olive oil was obtained by maceration method using ethanol 96% as solvent. *In vitro* measurement of SPF used spectrophotometer Ultraviolet-visible. The SPF was calculated and plotted with concentrations using non-linear regression method. Formulation *Herb. Extract pegagan and olive oil* in sunscreen lotion using varying concentrations of was prepared by several ratios *i.e.* F1 (5%:0,1%), F2 (10%:0,1%), and F3 (20%:0,1%). Physical stability and properties of lotion were conducted *i.e.* organoleptic, homogeneity, viscosity, spreadibility, emulsion type and pH. The results were statistically analyzed using two way analysis of variance at confidence level of 95%.

The results showed that as many as extract herb pegagan and olive oil SPF values of 28,5 (ultra protection); 29,9 (ultra protection); and 37 (ultra protection), respectively.

Keyword: Extract herb pegagan and olive oil leaves, Flavonoid, SPF value, Sunscreen