

INTISARI

MUNIROH ADDAWIYYAH, 2022, PENGARUH VARIASI BASIS KARBOPOL 940 TERHADAP MUTU FISIK DAN STABILITAS SEDIAAN EMULGEL MINYAK ATSIRI DAUN KEMANGI (*Ocimum basilicum* L), KARYA TULIS ILMIAH, PROGRAM STUDI D-III FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA. Dibimbing oleh apt. Siti Aisyah, S.Farm., M.Sc.

Emulgel merupakan sediaan yang memiliki sistem kontrol pelepasan ganda berupa gel dan emulsi. Minyak atsiri daun kemangi bersifat hidrofobik sehingga sesuai diformulasikan menjadi emulgel. Penelitian ini menggunakan *gelling agent* berupa karbopol 940, yang berperan dalam penentuan sifat dan karakteristik sediaan emulgel. Tujuan penelitian ini adalah untuk mengetahui pengaruh variasi konsentrasi karbopol 940 terhadap mutu fisik dan stabilitas sediaan emulgel minyak atsiri daun kemangi.

Emulgel minyak atsiri daun kemangi dibuat dalam 3 formula dengan variasi konsentrasi karbopol 0,5%, 1% dan 1,5%. Sediaan emulgel yang dihasilkan diuji mutu fisik emulgel meliputi organoleptis, homogenitas, pH, daya sebar, uji stabilitas dan daya lekat. Hasil data dianalisis menggunakan program SPSS Statistic version 25.0 dengan metode *ANOVA one way* dan *Paired T-test*.

Hasil uji mutu fisik emulgel bahwa semakin tinggi konsentrasi karbopol maka viskositas dan daya lekat semakin besar sehingga daya sebar semakin kecil. Perbedaan konsentrasi karbopol dapat menghasilkan sediaan emulgel yang baik terhadap sifat fisik dan stabilitas yang baik pada pengujian organoleptis, homogenitas, daya proteksi dan tipe emulsi.

Kata kunci : Emulgel, minyak atsiri, daun kemangi, karbopol 940.

ABSTRAK

MUNIROH ADDAWIYYAH, 2022, THE EFFECT OF VARIATIONS OF CARBOPOL 940 BASE ON PHYSICAL QUALITY AND STABILITY OF EMULGEL PREPARATIONS OF Basil Essential Oil (*Ocimum basilicum L*), SCIENTIFIC PAPERS, THREE YEAR DIPLOMA IN PHARMACY, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by apt. Siti Aisiyah, S.Farm., M.Sc.

Emulgel is a preparation that has a dual release control system in the form of a gel and an emulsion. Basil essential oil is hydrophobic so it is suitable to be formulated as an emulgel. This study used a gelling agent in the form of carbopol 940, which played a role in determining the nature and characteristics of the emulgel preparation. The purpose of this study was to determine the effect of variations in the concentration of carbopol 940 on the physical quality and stability of the basil leaf essential oil emulgel preparation.

Emulgel essential oil of basil leaves was made in 3 formulas with variations in carbopol concentrations of 0.5%, 1% and 1.5%. The resulting emulgel preparations were tested for physical quality of emulgel including organoleptic, homogeneity, pH, dispersibility, stability and adhesion tests. The results of the data were analyzed using the SPSS Statistics version 25.0 program with one-way ANOVA and Paired T-test methods.

The results of the physical quality test of the emulgel showed that the higher the concentration of carbopol, the greater the viscosity and adhesion, so that the dispersion was smaller. Differences in carbopol concentrations can produce good emulgel preparations with respect to physical properties and good stability on organoleptic testing, homogeneity, protection power and emulsion type.

Key words : Emulgel, essential oil, basil leaves ,carbopol 940.