

## INTISARI

**WIHARDI K.C. 2023, PENGARUH VARIASI Na-CMC DAN GLISERIN PADA FORMULASI EMULGEL GIGI GEL MINYAK ATSIRI KULIT JERUK PURUT (*Citrus hystrix* DC) DAN AKTIVITAS TERHADAP BAKTERI *Streptococcus mutans* ATCC 25175, SKRIPSI, FALKUTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA**

Minyak astiri kulit jeruk purut dilakukan pengujian karakteristik organoleptis, BJ, Indeks bias, Uji kelarutan dalam etanol 96%, dan pengujian GC-MS. Pembuatan sediaan emulgel gigi menggunakan konsentrasi minyak atsiri sebesar 8% dengan variasi Na-CMC dan gliserin dilakukan uji mutu fisik meliputi organoleptis, homogenisitas, pH, viskositas, daya sebar, tipe emulsi, tinggi busa, aktivitas antibakteri, dan stabilitas. Data uji mutu fisik, stabilitas dan aktivitas antibakteri dilakukan uji statistik.

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Hasil penelitian menunjukkan variasi konsentrasi Na-CMC dan gliserin memenuhi parameter uji mutu fisik emulgel. Viskositas dan daya sebar mempengaruhi aktivitas antibakteri *Streptococcus mutans*. Formula ke 4 emulgel gigi dengan konsentrasi Na-CMC 2,8% dan gliserin 4% menghasilkan mutu fisik, stabilitas, dan aktivitas antibakteri yang baik.

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**Kata kunci** : Emulgel gigi, Na-CMC, Gliserin, Metode difusi cakram

## **ABSTRACT**

**WIHARDI K.C. 2023, THE EFFECT OF VARIATION OF Na-CMC AND GLYCERIN ON TOOTH PASTE GEL ESSENTIAL OIL KRISTINA CITRAWATI WIHARDI 2023, EFFECT OF VARIATIONS OF Na-CMC AND GLYCERIN ON THE EMULGEL FORMULATION OF DENTAL GEL ESSENTIAL OIL OF Kaffir Orange Peel (*Citrus hystrix* DC) AND ACTIVITY AGAINST THE BACTERIA *Streptococcus mutans* ATCC 25175, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITAS, SURAKARTA.**

Kaffir lime peel essential oil was tested for organoleptic characteristics, BJ, refractive index, solubility test in 96% ethanol, and GC-MS testing. The preparation of dental emulgel preparations using an essential oil concentration of 8% with variations of Na-CMC and glycerin was carried out by physical quality tests including organoleptic, homogeneity, pH, viscosity, spreadability, emulsion type, foam height, antibacterial activity and stability. Test data for physical quality, stability and antibacterial activity were subjected to statistical tests.

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The results showed that variations in the concentration of Na-CMC and glycerin met the physical quality test parameters of emulgel. Viscosity and spreadability influence the antibacterial activity of *Streptococcus mutans*. The 4th dental emulgel formula with a concentration of 2.8% Na-CMC and 4% glycerin produces good physical quality, stability and antibacterial activity.

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**Keywords :** *Emulgel tooth , Na-CMC, Glycerin, Disc diffusion method*