

INTISARI

PUTRI, B. E., 2021, UJI AKTIVITAS GEL *HAND SANITIZER* EKSTRAK KULIT NANAS (*Ananas comosus* (L.) Merr) TERHADAP *Staphylococcus aureus* ATCC 25923, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Kulit nanas (*Ananas comosus* (L.) Merr) diketahui memiliki aktivitas antibakteri terhadap bakteri *Staphylococcus aureus*. Senyawa aktif dalam kulit nanas yang memiliki aktivitas antibakteri yaitu flavonoid, alkaloid, tanin, dan saponin. Tujuan penelitian ini membuat formula sediaan gel *hand sanitizer* dari ekstrak kulit nanas yang memiliki mutu fisik dan stabilitas yang baik serta beraktivitas terhadap bakteri *Staphylococcus aureus*.

Kulit nanas diekstraksi dengan metode maserasi selama 5 hari dengan pelarut etanol 70%. Ekstrak kulit nanas di formulasikan menjadi 3 formula dengan perbedaan konsentrasi ekstrak etanol 3%, 6%, dan 9%. Sediaan gel dari setiap formula di uji organoleptis, homogenitas, pH, viskositas, daya sebar, daya lekat, stabilitas dan aktivitas terhadap bakteri *Staphylococcus aureus*. Data uji mutu fisik dan aktivitas terhadap bakteri *Staphylococcus aureus* dianalisa secara statistik dengan uji *Shapiro-Wilk* dilanjutkan dengan uji *one way ANOVA*.

Hasil penelitian menyatakan bahwa sediaan gel *hand sanitizer* ekstrak kulit nanas dengan berbagai konsentrasi mempunyai mutu fisik dan stabilitas yang baik. Gel *hand sanitizer* ekstrak kulit nanas dengan berbagai konsentrasi mempunyai aktivitas antibakteri. Hasil uji aktivitas antibakteri menunjukkan sediaan gel *hand sanitizer* ekstrak kulit nanas terhadap bakteri *Staphylococcus aureus* dengan konsentrasi 9% memberikan efek antibakteri paling aktif.

Kata kunci : *Ananas comosus* L. Merr, antibakteri, gel *hand sanitizer*, *Staphylococcus aureus*.

ABSTRACT

PUTRI, B. E., 2021, TEST OF GEL HAND SANITIZER ACTIVITY TEST OF Pineapple (*Ananas comosus* (L.) Merr) SKIN EXTRACT AGAINST *Staphylococcus aureus* ATCC 25923, Thesis, FACULTY OF PHARMACY, UNIVERSITY OF SETIA BUDI, SURAKARTA.

Pineapple skin (*Ananas comosus* (L.) Merr) is known to have antibacterial activity against *Staphylococcus aureus* bacteria. The active compounds in pineapple peel that have antibacterial activity are flavonoids, alkaloids, tannins, and saponins. The purpose of this study was to formulate a hand sanitizer gel from ethanol extract of pineapple peel which has good physical quality and stability and has activity against *Staphylococcus aureus* bacteria.

Pineapple peel was extracted by maceration method for 5 days with 70% ethanol solvent. The ethanol extract of pineapple peel is formulated into 3 formulas with differences in the concentration of ethanol extract of 3%, 6%, and 9%. The gel preparations of each formula were tested for organoleptic, homogeneity, pH, viscosity, dispersibility, adhesion, stability and activity against *Staphylococcus aureus* bacteria. Physical quality test data and activity against *Staphylococcus aureus* were analyzed statistically by the Shapirow-Wilk test followed by one way ANOVA test.

The results showed that the hand sanitizer gel preparation of ethanol extract of pineapple peel with various concentrations had good physical quality and stability. The hand sanitizer gel of pineapple peel ethanol extract with various concentrations has antibacterial activity. The results of the antibacterial activity test showed that the hand sanitizer gel preparation of pineapple peel extract against *Staphylococcus aureus* with a concentration of 9% gave the most active antibacterial effect.

Keywords: *Ananas comosus* L. Merr, antibacterial, gel hand sanitizer, *Staphlococcus aureus*.