

ABSTRAK

FORMULASI SEDIAAN GEL *HAND SANITIZER* DARI EKSTRAK ETANOL DAUN LINDUR (*Bruguiera gymnorrhiza*) SEBAGAI ANTIBAKTERI

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Latar Belakang : Kebersihan tangan sangat penting karena tangan merupakan bagian tubuh yang paling sering kontak langsung dengan lingkungan dan bakteri. Bakteri yang ada di tangan salah satunya adalah *S.aureus*. Cara untuk menghambat dan membunuh bakteri yaitu dengan mencuci tangan menggunakan sabun. Namun penggunaan sabun tidak efisien. Sehingga, diperlukan *hand sanitizer* menggunakan bahan alam. Salah satunya adalah daun lindur yang berpotensi memiliki aktivitas antibakteri. Tujuan penelitian adalah untuk mengetahui sediaan *hand sanitizer* terpilih yang memenuhi syarat sifat fisik, stabilitas fisik dan efektif menghambat bakteri *S.aureus*.

Metodologi : Penelitian ini adalah penelitian eksperimental yang meliputi formulasi sediaan gel *Hand sanitizer* ekstrak daun *Bruguiera gymnorrhiza* dengan konsentrasi ekstrak daun lindur 0%, 0,5%, 1% dan 1,5% dan evaluasi fisik serta uji aktivitas antibakteri.

Hasil Penelitian : Formula 2 menunjukkan memenuhi syarat sifat fisik. Sedangkan Formula 0, 1, dan 3 pada hasil uji organoleptis dan uji daya sebar tidak memenuhi persyaratan karena pada hari ke-28 mengalami perubahan organoleptis dan peningkatan daya sebar. Hasil pengamatan *stabilitas freeze thaw* yang diperoleh juga stabil selama penyimpanan 28 hari. Hasil zona hambat aktivitas antibakteri formula 2 dengan konsentrasi 1% sebesar 13mm.

Kesimpulan : Formula terpilih adalah formula 2 dengan konsentrasi 1% yang memenuhi persyaratan sifat fisik dan stabilitas fisik serta memiliki zona hambat aktivitas antibakteri terhadap *S.aureus* sebesar 13mm termasuk dalam kriteria kuat.

Kata kunci : *Hand sanitizer*, daun lindur (*Bruguiera gymnorrhiza*), Antibakteri, *S.aureus*

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ABSTRACT

FORMULATION OF *HAND SANITIZER GEL FROM ETHANOL* *EXTRACT OF LINDUR LEAF (Bruguiera gymnorrhiza) AS* *ANTIBACTERIAL*

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Background : Hand hygiene is very important because hands are the part of the body that is most often in direct contact with the environment and bacteria. One of the bacteria on the hands is *S.aureus*. The way to inhibit and kill bacteria is to wash your hands with soap. But the use of soap is not efficient. So, a hand sanitizer is needed using natural ingredients. One of them is lindur leaves which have the potential to have antibacterial activity. The aim of the study was to find out which *hand sanitizer* preparations were selected that met the requirements for physical properties, physical stability and were effective in inhibiting *S.aureus* bacteria.

Methodology: This study was an experimental study which included hand sanitizer gel formulations of *Bruguiera gymnorrhiza* leaf extract with concentrations of 0%, 0.5%, 1% and 1.5% and physical evaluation and antibacterial activity test.

Result: Formula 2 shows that it meets the requirements for physical properties. However Formulas 0, 1, and 3 on the results of the organoleptic test and spreadability test did not meet the requirements because on the 28th day they experienced organoleptic changes and increased spreadability. Freeze thaw stability observations obtained were also stable during 28 days of storage. The results of the inhibition zone of antibacterial activity of formula 2 with a concentration of 1% were 13mm.

Conclusion: The selected formula was formula 2 with a concentration of 1% which met the requirements for physical properties and physical stability and had an inhibition zone of 13mm of antibacterial activity against *S.aureus* which was included in the strong criteria.

Keyword: *Hand sanitizer*, lindur leave (*Bruguiera gymnorrhiza*), Antibacterial, *S.aureus*

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