

Abstrak

FORMULASI SEDIAAN *SPRAY GEL* ANTISEPTIK TANGAN MINYAK ATSIRI BUNGA LAVENDER (*Lavandula angustifolia* M.)

Latar Belakang : *Spray gel* minyak atsiri bunga lavender merupakan alternatif yang dapat digunakan sebagai antiseptik. Minyak atsiri bunga lavender memiliki kandungan linalool dan linalil asetat yang memiliki aktivitas antibakteri. Penelitian ini bertujuan untuk mendapatkan formula terbaik sediaan *spray gel* antiseptik yang memiliki sifat fisik dan stabilitas fisik serta memiliki aktivitas antibakteri terhadap *Staphylococcus aureus*.

Metodologi : Penelitian eksperimental ini meliputi pembuatan sediaan *spray gel*, evaluasi sifat fisik dan stabilitas fisik serta uji aktivitas antibakteri. *Spray gel* diformulasikan dengan variasi HPMC pada konsentrasi 0,05%; 0,1%; 0,25; dan 0,5%. Pengamatan organoleptik, homogenitas, kondisi semprotan, dan stabilitas fisik dianalisis secara deskriptif. Pengamatan pH, daya sebar lekat, viskositas dianalisis dengan *oneway* ANOVA. Formula terpilih kemudian diuji aktivitas antibakteri terhadap *S. aureus*.

Hasil Penelitian : Hasil penelitian menunjukkan bahwa formula I memenuhi persyaratan sifat fisik dan uji stabilitas fisik *freeze-thaw*. Formula I merupakan formula terbaik pada pengujian daya lekat dan kondisi semprotan.

Kesimpulan : Formula terpilih sediaan *spray gel* menunjukkan bahwa formula I memiliki aktivitas antibakteri terhadap *S. aureus* lebih besar dibandingkan dengan kontrol positif (sediaan *spray gel* komersil merk X yang mengandung alcohol 70%) yaitu diameter zona hambat pada formula terpilih sebesar 5,6 mm sedangkan pada control positif sebesar 1,1 mm.

Kata Kunci : Antiseptik, Bunga Lavender (*Lavandula angustifolia* M.), Minyak Atsiri, Spray Gel, *Staphylococcus aureus*

Abstract

FORMULATION OF PREPARATION OF ANTISEPTIC HAND SPRAY GEL LAVENDER ESSENTIAL OIL (*Lavandula angustifolia* M.)

Background : *spray gel* Lavender essential oil Lavender essential oil contains linalool and linalyl acetate which have antibacterial activity. This study aims to obtain the best formula for *spray gel* which has physical properties and physical stability and has antibacterial activity against *Staphylococcus aureus*.

Methodology: This experimental research includes the preparation of *spray gel*, evaluation of physical properties and physical stability as well as testing of antibacterial activity. *Spray gel* is formulated with HPMC variations at a concentration of 0.05%; 0.1%; 0.25; and 0.5%. Organoleptic observations, homogeneity, spray conditions, and physical stability were analyzed descriptively. Observation of pH, adhesive dispersion, viscosity were analyzed by way ANOVA . The selected formula was then tested for antibacterial activity against *S. aureus*.

Research Results: The results showed that Formula I (0.05% HPMC concentration) met the requirements for physical properties and freeze-thaw physical stability tests. Formula I is the best formula in testing the adhesion dispersion and spray conditions.

Conclusion: The selected formula for spray gel preparations showed that formula I had greater antibacterial activity against *S. aureus* than the positive control (commercial spray gel of brand X containing 70% alcohol), the diameter of the inhibition zone in the selected formula was 5.6 mm, while the control positive was 1.1 mm.

Keywords: Essential Oil, Lavender Flowers (*Lavandula angustifolia* M.), Spray Gel, *Staphylococcus aureus*