

ABSTRAK

KAJIAN STABILITAS DAN AKTIVITAS ANTIBAKTERI SABUN BERBAHAN DASAR MINYAK KELAPA SAWIT DENGAN VARIASI KONSENTRASI EKSTRAK DAUN SALAM (*Syzygium polyanthum*)

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Sabun merupakan produk kebersihan yang penting untuk kesehatan kulit, dan pemanfaatan bahan alami seperti ekstrak daun salam (*Syzygium polyanthum*) menjadi solusi inovatif untuk meningkatkan kualitas sabun antibakteri. Penelitian ini bertujuan untuk mengetahui pengaruh variasi konsentrasi ekstrak daun salam terhadap aktivitas antibakteri dan stabilitas sabun cair berbahan dasar minyak kelapa sawit. Metode yang digunakan adalah eksperimen kuantitatif dengan rancangan deskriptif analitik. Ekstrak daun salam diperoleh melalui metode maserasi menggunakan etanol 96%, dan formulasi sabun diuji pada konsentrasi 0%, 5%, 10%, dan 15%. Uji antibakteri dilakukan terhadap *Staphylococcus aureus* dengan metode difusi cakram. Stabilitas sabun diuji melalui uji pH, viskositas, warna, aroma, dan tinggi busa sesuai Standar Nasional Indonesia (SNI). Hasil penelitian menunjukkan bahwa sabun dengan ekstrak 15% menghasilkan zona hambat terbesar 11,9 mm dan semua formulasi memiliki pH netral 7 yang sesuai standar. Penurunan viskositas terjadi seiring peningkatan konsentrasi ekstrak, namun tetap dalam rentang Standar Nasional Indonesia (SNI). Uji organoleptik menunjukkan sabun diterima baik dari segi warna dan aroma. Dapat disimpulkan bahwa penambahan ekstrak daun salam meningkatkan efektivitas antibakteri sabun tanpa mengganggu stabilitas fisik dan kimia, menjadikannya alternatif bahan aktif yang potensial dan ramah lingkungan.

Kata kunci: sabun cair, daun salam, antibakteri, stabilitas, *Staphylococcus aureus*.

ABSTRACT

STUDY OF STABILITY AND ANTIBACTERIAL ACTIVITY OF PALM OIL BASED SOAP WITH VARIATIONS OF BAY LEAF (*Syzygium polyanthum*) EXTRACT CONCENTRATION

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Soap is an important hygiene product for skin health, and the use of natural ingredients such as bay leaf (*Syzygium polyanthum*) extract is an innovative solution to improve the quality of antibacterial soap. This study aims to determine the effect of variations in bay leaf extract concentration on the antibacterial activity and stability of liquid soap made from palm oil. The method used is a quantitative experiment with a descriptive analytical design. Bay leaf extract was obtained through the maceration method using 96% ethanol, and soap formulations were tested at concentrations of 0%, 5%, 10%, and 15%. Antibacterial tests were carried out on *Staphylococcus aureus* using the disc diffusion method. Soap stability was tested through pH, viscosity, color, aroma, and foam height tests according to the Indonesian National Standard (SNI). The results showed that soap with 15% extract produced the largest inhibition zone of 11.9 mm and all formulations had a neutral pH of 7 which was in accordance with the standard. The decrease in viscosity occurred as the extract concentration increased, but remained within the Indonesian National Standard (SNI) range. Organoleptic tests showed that the soap was well accepted in terms of color and aroma. It can be concluded that the addition of bay leaf extract increases the antibacterial effectiveness of soap without disrupting physical and chemical stability, making it a potential and environmentally friendly alternative active ingredient.

Keywords: liquid soap, bay leaves, antibacterial, stability, *Staphylococcus aureus*.

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