FORMULATION OF LIQUID SOAP WITH COLD PROCESS FROM CITRONELLA OIL (Cymbopogon nardus L.) AND TEGOBETAINE

ABSTRACT

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The citronella oil (Cymbopogon nardus L.) has an antibacterial activity. Chemical compound as an antibacterial in citronella essential oil are sitronellal, sitronellol, ang geraniol. The purpose of this formulation is to determine the combination of the best concentration by addition of citronella essential oil and tegobetaine surfactant, in accordance with SNI 06-4085-1996 and to determine the value of the inhibitory power zone (mm) against Staphylococcus aureus bacteria. The stages in this research are: (1) preparation the tools and materials of liquid bath soap, (2) formulation the bath soap by cold process, (3) characterization: organoleptic test, SNI parameters test and antibacterial test against Staphylococcus aureus bacteria. The results of the organoleptic test showed that five formulations of liquid bath soap A_2B_4 ; A_4B_4 ; A_4B_5 ; A_5B_2 ; and A₅B₅ had pH values 7.24; 7.26; 7.61; 7.27; and 7.27 respectively and the alkali test results weren't alkaline (the color of cloudy liquid bath soap). The result of viscosity test were 37.8; 30.0; 56.4; 67.2; dan 97.0 cPs and the values of inhibitory power zone were 14.3; 15.1; 15.8; 14.4; dan 14.8 mm respectively against the *Staphylococcus aureus* bacteria.

Keywords: citronella oil, tegobetaine, cold process, antibacterial, *Staphylococcus aureus*.