

Formulation of Antibacterial Liquid Soap from Nyamplung Seed Oil (*Calophyllum inophyllum* L) with Addition of *Curcuma heyneana* and its Activity Test on *Staphylococcus aureus*

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Abstract	<p>The increasing demand of soap encourages new innovations of it's quantity, quality, benefits and raw materials. One of the innovations that has been developed is the use of nyamplung (<i>C. inophyllum</i> L) seed oil as basic ingredients of soap, with addition of active substances such as antibacterial and fragrance. This research aims to determine best formulation of liquid soap according to SNI 06-4085-1996 and its antibacterial activity after addition of n-hexane fraction of <i>C. heyneana</i> rhizome and fragrance from lavender flower oil at various concentrations, then a hedonic test was conducted to evaluate the panelist's preference towards the soap with the best formulation. This research has been done through several stages of soap making with saponification method, soap characterization according to SNI 06-4085-1996, determination of best formulation of liquid soap based on the effectiveness index method and antibacterial activity test of liquid soap to <i>S. aureus</i> with disc diffusion method and hedonic test using some parameters such as colour, odor, foam, clean power and effects after being used. The results showed that the best characteristic soap according to SNI 06-4085-1996 was soap with 0.2% antibacterial content and 2.5% perfume. The best soap characteristic showed total fatty acid 67.49%, free fatty acid 1.01%, neutral fat 7.24%, weight of type 1.05 g/mL, pH of 9.85 and foam stability 76.69%. The results of the antibacterial activity test of the best formula soap showed the inhibitory zone of 14.92 mm.</p>
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