EVALUATION AND SENSITIVITY TEST OF SOLID SOAP FORMULATION OF *Spirulina sp* AND HONEY ON *PSEUDOMONAS AERUGINOSA* AND *STAPHYLOCOCCUS AUREUS* BACTERIA

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ABSTRACT

Background: The skin is an organ on the outer surface of an organism to limit the environment in the body with the external environment, so that the skin is the first line of defense against various threats that come from outside such as germs, viruses, and bacteria. So that protection is needed, one of which is by using bath soap. The use of antibacterial soap made from synthetic materials can prevent infection, so it is necessary to use natural ingredients such as spirulina sp combined with honey because spirulina sp itself has alkaloid, flavonoid, and saponin compounds that can kill bacteria. While honey has a high sugar content such as glucose, fructose, maltose and sucrose which can kill gram-positive and gram-negative bacteria. **Purpose:** This study was to determine the evaluation and effectiveness test of antibacterial formulations of solid bath soap spirulina sp and honey against Pseudomonas aeruginosa and staphylococcus aureus bacteria. **Research method:** evaluation of solid soap was carried out in accordance with SNI 3532 of 2021 and the antibacterial effectiveness test used the well diffusion method. **Research results:** showed that the evaluation of solid soap spirulina sp and honey had met the standards. Except for free fatty acids that do not meet the standards. Meanwhile, the antibacterial effectiveness test showed that there was an inhibitory force formed around the hole. Conclusion From the research that has been conducted, it can be concluded that the results of the evaluation of solid soap spirulina sp and honey pH, water content, and insoluble materials in ethanol meet the requirements according to SNI 3532-2021. The results of the antibacterial effectiveness test show that solid soap spirulina sp and honey are effective in inhibiting the growth of Pseudomonas aeruginosa and staphylococcus aureus bacteria.

Keywords: Solid soap, Spirulina sp, Honey, Pseudomonas aeruginosa, staphylococcus aureus.