ABSTRACT

PHYSICAL STABILITY TEST OF LIQUID SOAP PREPARATIONS OF BASIL LEAF EXTRACT (Ocimum basilicum L.) USING THE FREEZE-THAW METHOD

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Cleanliness has become an important thing that must be applied in everyday life, seen from so many germs or microorganisms. Soap is one of the primary needs of humans as a cleanser from germs and bacteria Liquid soap is a liquid preparation intended to clean the skin, made from soap base ingredients that are added various ingredients that are allowed, and can be used for bathing without irritating to the skin. Basil leaves (Ocimum basilicum L.) have antibacterial activity against Staphylococcus aureus bacteria and contain saponin compounds, flavonoids, tannins, saponin compounds work to damage the cytoplasmic membrane and kill microbial cells. The research method is experimental research. The freeze thaw stability test was conducted to determine the effect of liquid soap storage temperature on variations in KOH as a thickener in each formula. The results of organoleptic test research are semisolid, the color of which from cycle 0 is yellowish white to yellowish white in cycle 6 and mint smell. The homogeneity test shows that the preparation is homogeneous or there are no coarse grains. The pH test results stated that there was a significant difference in cycle 0 to cycle 6 through Shapiro-Wilk. This study concludes that freeze thaw storage temperature significantly influences the stability of basil leaf extract liquid soap preparations as much as 6 cycles on color, no effect on odor, shape, and homogeneity parameters, affects pH.

Keywords: *Liquid Soap, Ocimum basilicum L, Freeze Thaw*