

## **ABSTRACT**

### **THE EFFECT OF STEARIC ACID TO THE PHYSICAL CHARACTERISTICS ON AVOCADO LEAF EXTRACT LOTION (*Persea americana* Mill.)**

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Avocado leaves (*Persea americana* Mill.) contain natural antioxidant to protect the body from free radicals that damage the skin. Lotion is a skin moisturizing cosmetic, in the form of an oil-in-water emulsion preparation which is stabilized by an emulsifier. Stearic acid as an emulsifier has the advantage that it is neutral, non-toxic, stable and can give a distinctive luster to the product. The study used an experimental method to determine the effect of stearic acid on the resulting lotion preparation. The sample used was avocado leaf (*Persea americana* Mill.) ethanol extract lotion with variations of stearic acid as an emulsifier, namely F1 (3%), F2 (4%) and F3 (5%). The results of the three lotion formulations have an average pH between 6.39-7.29 with the lotion pH requirement of 4.5-6,5 and the average dispersion is 6.1-6.76 with the dispersion requirements of 5-7cm. The results of data normality with Shapiro-Wilk test and data homogeneity with Levene test, significant of pH and dispersion  $> 0,05$  is means that the results of the pH test and dispersion are normal and homogeneous data. Followed by the One-Way Anova statistical test, the results of the significance of pH and dispersion of  $0.00 < 0.05$  means that there is a significant effect. Based on these studies, it can be concluded that the concentration of stearic acid affects the pH and spreadability of the lotion. The greater the concentration of stearic acid, the lower the pH and spreadability of the lotion.

Key words : Lotion, Emulgator, Stearic Acid, Avocado Leaf (*Persea americana* Mill.)