## **ABSTRACT**

## STABILITY TEST OF FREEZE THAW LIP CREAM SECANG WOOD EXTRACT (Caesalpinia sappan L.) COMPARED TO LIP CREAM COMBINATION OF SECANG WOOD EXTRACT (Caesalpinia sappan L.) AND ROSELLA FLOWERS (Hibiscus sabdariffa)

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Synthetic dyes are dyes derived from chemical colors, if used continuously they can cause carcinogenic effects on the body. Therefore, this research used a combination of 2 extracts, namely secang wood extract (Caesalpinia sappan L.) and rosella flower extract (Hibiscus sabdariffa) as natural dyes which contain the natural dyes brazilin and anthocyanin. This research used an experimental method to determine the effect of storage temperature on the characteristics of lip cream preparations of secang wood extract (Caesalpinia sappan L.) and rosella flower extract (Hibiscus sabdariffa) which were used in 2 different formulations, namely in F1 the concentration of secang wood extract was 1% and in F2 concentration of secang wood extract 1% and rosella flower extract 1%. The lip cream was tested for freeze thaw stability in 6 cycles with a storage temperature of 4°C in the refrigerator and 40°C in the oven for 24 hours, then the physical characteristics were evaluated, including organoleptic, homogeneity test and pH test. The results showed that the F1 preparation was in the form of cream, in the 0th to 3rd cycle it was dark pink while in the 4th cycle it was light brown and smelled of cacao. Formula 2 is in cream form, brick red in color and smells of cacao. In the homogeneity test, formulas 1 and 2 were not homogeneous or contained white grains. The pH test corresponds to the pH range of the lips. Differences in the 0th cycle and the 6th cycle were tested using Wilcoxon.

**Keywords**: Lip cream, Caesalpinia saapan L, Hibiscus sabdariffa, Stability, Freeze Thaw.