

ABSTRACT

GEL STABILITY TEST OF THE COMBINATION OF HENNA LEAF EXTRACTS (*Impatiens balsamina Linn*) AND (*Centella asiatica (L.) Urban*) LEAF

(Study conducted at Academy of Pharmaceutical Surabaya)

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*The skin is an organ that functions to protect the surface of the body and protect the body from environmental influences. Disorders of skin diseases such as ulcers, bleeding wounds, burns, eczema, itching. Extracts of henna leaves and gotu kola leaves contain compounds, namely flavonoids, tannins, triterpenoids, saponins and steroids which function as anti-bacterials and heal wounds on the skin. This study aims to determine how the effect of temperature changes on the physical characteristic test of gel preparations of henna leaf extract i and gotu kola leaves (*Centella asiatica (L.) Urban*). This study uses an experimental method. In this study, there were 3 concentrations of the preparation formula to be tested for stability using the Freeze Thaw method, in order to determine changes in temperature in the gel preparation. Testing of physical characteristics includes organoleptic test, homogeneity test, pH test and spreadability test. The data obtained can then be compared with the requirements that are in accordance with the parameters, then processed and analyzed using SPSS 25 software. in formula 3 did not meet the requirements in the pH and spreadability tests. Then a normality test and follow-up test were carried out using the Paired Sample T-test on the spreadability test that Formulas 1 and 3 met the value of good spreadability requirements and these two formulas were significantly different from Formula 2 which had a significant difference between cycles 0-6. In other words, temperature changes in the gel preparations of henna leaf extract (*Impatiens balsamina Linn*) and gotu kola (*Centella asiatica (L.) Urban*) have an effect on the test of spreadability.*

Keywords : Gel, Stability test, Henna leaf extract, Centella leaf extract, Freeze thaw