

ABSTRACT

FORMULATION AND PHYSICAL STABILITY TEST FOR THE PREPARATION OF 70% Ethanol EXTRACT CREAM OF GREEN Betel Leaf (*Piper betle Linn*) WITH DIFFERENT CONCENTRATIONS OF STEARIC ACID

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Acne (*acne vulgaris*) is a common skin disease. Acne affects skin that has a lot of sebaceous follicle glands (oil glands) such as the face, upper chest and back. Green betel leaf (*Piper betle Linn*) contains essential oils consisting of chaficol paralyphenol or betlephenol. Green betel leaf (*Piper betle Linn*) contains volatile substances consisting of phenol and mostly kavikol. Kavikol antiseptic power five times than febol. This study aims to determine the effect of temperature changes on the physical characteristics of the preparation of green betel leaf extract cream (*Piper betle Linn*) with variations in the concentration of *Stearic Acid*.

The results showed that green betel leaf extract (*Piper betle Linn*) can be used as a cream preparation that is physically stable. This is evidenced by the results of physical properties tests which include shape, color, odor, homogeneity, pH, and dispersibility of the three formulas, namely the 5% *stearic acid* formula, 6% *stearic acid* formula, and 7% *stearic acid* formula. stable. Based on the results of the research on the preparation of green betel leaf extract cream (*Piper betle Linn*) on the organoleptic test and the homogeneity test, changes in storage time did not affect. Based on the one-way Anova test, there is an average difference in the pH of the three formulas from Day 1 – Day 28. Then based on the Kruskal-Wallis Test there is an average difference in the dispersion of the three formulas from Day 1 – Day 28th. Then a follow-up test was carried out using Paired samples T-Test, there was no significant difference between Day 1 and Day 28. In other words, changes in temperature in the preparation of green dun betle extract cream (*Piper betle Linn*) had no effect on pH and power. spread.

Keywords: Cream, Stability test, Green betel leaf extract, *Stearic acid*.