ABSTRACT

STABILITY TEST OF GEL PEEL OFF MASKS GREEN BETEL LEAF EXTRACT (Piper betle L.) AND BELIMBING WULUH LEAF (Averrhoa bilimbi L.)

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The combination of green betel leaves and belimbing wuluh leaves both contains flavonoids, which have antibacterial properties and overcome premature aging. To make peel-off gel masks from natural ingredients, stability needs to be considered. Stability is defined as the ability of a product or preparation to survive within specified limits during the storage period, its properties and characteristics must be the same as when the preparation was first made. In order to obtain a preparation that is stable in storage and in a short time, an accelerated stability test can be carried out for 6 cycles with a storage temperature of 4°C and 40°C. The purpose of this study was to determine the resistance of peel-off gel mask preparations to the effects of extreme storage temperatures. This peel-off gel mask uses variations of three concentrations of carbomer as a gelling agent, namely 1%, 2%, and 3%. Evaluations carried out before and after the stability test included organoleptic, pH, dry time, spreadability, and homogeneity. In this study, the stability test results showed that there was no significant difference before and after freeze-thaw in organoleptic and homogeneity tests. However, there were significant differences in changes in pH, spreadability, and dry time after the freeze-thaw test was carried out, so it can be concluded that storage temperature can affect the stability of peel-off gel mask preparations of green betel leaf and starfruit leaf extracts.

Keywords: stability, freeze-thaw, effect of variations in carbopol 940 concentrations