STABILITY OF COLD PROCESS CREAM BASED ON ALOE VERA AND VIRGIN COCONUT OIL

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ABSTRACT

Aloe vera leaves extract and virgin coconut oil (VCO) have been proved that it has potential antioxidant activity in cosmetic product. However, the efficacy of cold cream formulation of aloe vera and virgin coconut oil has not been studied. The main objective of this study is to establish a stable formulation of cold process cream by using aloe vera and virgin coconut oil. In this research, formulation of cold cream using extracts aloe vera and virgin coconut oil and other ingredients such as VISCOLAM AT 100P, distilled water, phenethyl alcohol and lemongrass oil. To achieve this objective of study, the stability test such as freeze-thaw, centrifugation test and temperature stability test were carried out. Skin tests including skin moisture content, skin pH, skin elasticity and trans-epidermal water loss (TEWL) also were carried out. In order to determine more stable formulation of cold cream, the formulation was carried out by using Design Expert 6.0.8 software. In this software, research surface methodology (RSM) was chosen to study on the percentage of the main factors which are aloe vera, virgin coconut oil and water. Box-Behnken was used to study the effect of different formulation of the cold cream. In optimization step, formulation of cold process cream were 1.14% of aloe vera, 5% of virgin coconut oil and 16.28% of viscolam. As the conclusion, a stable formulation of cold process cream by using aloe vera and virgin coconut oil were obtained.
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