ABSTRACT

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"THE FORMULATION AND EVALUATION OF ASTAXANTHIN CREAM PREPARATIONS AS SUNSCREEN"

ABSTRACT

Indonesia is a country that is located at the equator latitude causing a relatively high temperature reaching 35◦C, the rays emitted by the sun contain UV-A and UV-B which can cause a problem on the skin, it is necessary to use sunscreen made of natural materials that are safe from side effects such as astaxanthin. The purpose of this study is to determine the formulation of W/O cream and physical evaluation of astaxanthin sunscreen cream with variations in astaxanthin concentration.

This research method was true experimental. The samples used FI (0.5%), FII (1%) and FIII (2%) tests carried out included organoleptics, homogeneity, pH, dispersion and adhesion and SPF values using UV-Vis spectrophotometry with a wavelength of 290-320nm.

The results of this study showed that the cream preparation had met the physical standard, but the conscious value was not in accordance with the standard of a good sunscreen cream preparation. In the test using UV-Vis spectrophotometry with a wavelength of 290-320nm, the highest SPF value reached SPF 11.596 in the FIII formula with the maximum category. The results of statistical test analysis with one-way anova in the pH test obtained sig values (p=0.043), adhesion tests (p=0.017) and dispersion (p=0.023), it can be concluded that there was a significant difference in concentration on the physical properties of astaxanthin sunscreen cream

Keywords: Astaxanthin, Cream, Physical Evaluation.