

Noor Kholilah.24719814

**FORMULATION AND DETERMINATION OF SUN PROTECTION FACTOR (SPF) VALUES BY SPECTROPHOTOMETRY IN BODY BUTTER PREPARATIONS SUNSCREEN SOURSOP LEAF EXTRACT (*Annona muricata* L.)**

*Scientific Writing of Pharmacy Study Program, Faculty of Health Sciences and Pharmacy, Gunadarma University, 2022*

**ABSTRACT**

*Prolonged exposure to Ultraviolet (UV) rays from the sun can have a negative effect on the skin. Additional protection in the form of substances that are able to reduce the transmission of UV rays to the skin known as sunscreen agents is needed so that the skin avoids the negative effects of UV. Phenolic compounds, especially the flavonoid and tannin groups, have the potential for sunscreen because of the presence of a chromophore group that is able to absorb UV rays so as to reduce their intensity on the skin. Soursop leaves contain flavonoids, saponins, terpenoids, steroids, tannins, and alkaloids that have potential as sunscreen ingredients. This study aims to make a formulation of a body butter sunscreen preparation of soursop leaf ethanol extract and to determine the effect of variations in the concentration of soursop leaf ethanol extract on the value of the Sun protection factor (SPF) of the preparation. Soursop leaf powder simplisia was extracted by the maceration method using a 70% ethanol solvent and then a sunscreen body butter formula was made with variations in concentrations of 0.1%, 0.2%, and 0.3%. The physical evaluation carried out in this study includes organoleptic tests, homogeneity tests, pH measurements, dispersal tests, adhesion tests, and irritation tests. Measurement of the SPF value of sunscreen body butter preparations is carried out using the spectrophotometric method. The higher the SPF value, the better the protection against sunlight and the adverse influence of UV rays.*

*Keywords: Body butter, Soursop leaf extract, Sun protection factor (SPF), Sunscreen.*

*(xii + 65 + Attachment)*

*References (1979 - 2022)*