

ABSTRACT

SUNSCREEN TEST OF OCTYL METHOXYCINNAMATE ON THE NLC, SLN, AND SIMPLE CREAM SYSTEM

Eunike Fiona Natania

Octyl methoxycinnamate is a suncreean agent that absorb UV B rays. However, when exposed to sunlight, octyl methoxycinnamate is converted into a less UV-absorbent form, which reduces its effectiveness. The aim of this study was to know the effect of difference of delivery system on characteristic and effectiveness of sunscreen product containing octyl methoxycinnamate. NLC and SLN was made by hot homogenization with high shear homogenization. The characteristic test was done by observing pH, viscosity by Brookfield Cone and Plate Viscometry®, particle size by Particle Analyzer Delsa™ Nano Submicron Particle Size, orderness profil by Powder X-Ray Diffraction (PXRD), and the measuring of SPF value was done with spectrophotometric method. The result of the test showed that the SPF value of octyl methoxycinnamate was influenced by particle size and orderness.

Keywords : octyl methocycinnamate, sunscreen, Nanoparticle Lipid Carrier (NLC), Solid Lipid Nanoparticle (SLN), simple cream.