

Universitas Ngudi Waluyo
Program Studi Farmasi, Fakultas Kesehatan
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Tiara Anggraeni
051191114

SIFAT FISIK, STABILITAS DAN UJI IRITASI KRIM PELEMBAB MASKNE KOMBINASI MINYAK BIJI LABU KUNING (*Cucurbita moschata D. Seed Oil*) DAN NIACINAMIDE
(xvi + 61 halaman + 13 tabel + 13 gambar + 13 lampiran)

ABSTRAK

Latar belakang : Salah satu cara mencegah penularan COVID-19 adalah dengan rutin menggunakan masker. Pemakaian masker dalam waktu lama dapat menyebabkan masalah kulit berupa maskne atau timbulnya jerawat pada area yang tertutup masker. Niacinamide memiliki sifat anti-inflamasi yang potensial sebagai pengobatan akne vulgaris. Minyak biji labu kuning kaya akan squalene yang biasa digunakan sebagai pelembab atau emolien pada produk kosmetik. Penelitian ini bertujuan untuk memformulasikan minyak biji labu kuning (*Cucurbita moschata D. Seed Oil*) kombinasi niacinamide menjadi sediaan krim pelembab antijerawat.

Metode : Jenis penelitian ini adalah penelitian eksperimental laboratorium dengan menggunakan variasi konsentrasi minyak biji labu kuning 5% dan 10%. Sifat fisik, stabilitas, serta respon iritasi yang muncul diamati. Data kuantitatif dianalisis dengan SPSS *one way ANOVA* dan *paired T test*. Data pengamatan organoleptis dan homogenitas dianalisis secara deskriptif.

Hasil : Hasil uji sifat fisik krim pelembab kombinasi minyak biji labu kuning dan niacinamide memiliki sifat fisik organoleptis berupa tekstur kental, bentuk semi padat, warna putih, dan tidak berbau. Homogenitas memenuhi syarat yaitu homogen, pH sediaan >8, daya lekat 1,13-1,60 detik, daya sebar 5,11-5,54 cm, dan viskositas 7376-10014,67 cP. Stabilitas krim dilihat dari hasil sentrifugasi yang memiliki nilai F pada rentang 0,88-0,99 dan tidak menunjukkan pemisahan fase, serta membandingkan krim sebelum dan sesudah perlakuan *cycling test*.

Simpulan : Hasil penelitian yang telah dilakukan menunjukkan bahwa krim pelembab kombinasi minyak biji labu kuning dan niacinamide memiliki sifat fisik dan stabilitas yang memenuhi persyaratan kecuali pH serta tidak menimbulkan respon iritasi.

Kata kunci : minyak biji labu kuning, niacinamide, krim, pelembab, maskne

Ngudi Waluyo University
Study Program of Pharmacy, Faculty of Health
Final Project, February 2023
Tiara Anggraeni
051191114

PHYSICAL PROPERTIES, STABILITY AND IRRITATION TEST OF MOISTURIZING MASKNE CREAM COMBINATION OF YELLOW PUMPKIN SEED OIL (*Cucurbita moschata* D. *Seed Oil*) AND NIACINAMIDE

(xvi + 61 pages + 13 tables + 13 pictures + 13 attachments)

ABSTRACT

Background : One way to prevent transmission of COVID-19 is to regularly wear a mask. Wearing a mask for a long time can cause skin problems in the form of a mask or pimples in the area covered by the mask. Niacinamide has potential anti-inflammatory properties as a treatment for acne vulgaris. Pumpkin seed oil is rich in squalene which is used as a moisturizer or emollient in cosmetic products. This study aims to formulate pumpkin seed oil (*Cucurbita moschata* D. *Seed Oil*) combined with niacinamide into an anti-acne moisturizing cream preparation.

Method : This type of research was a laboratory experimental study using variations of pumpkin seed oil concentrations of 5% and 10%. The physical properties, stability, and irritation responses that appeared were observed. Quantitative data were analyzed by SPSS one way ANOVA and paired T test. Organoleptic observation data and homogeneity were analyzed descriptively.

Results : The results of the physical properties test of the moisturizing cream combination of pumpkin seed oil and niacinamide had organoleptic physical properties in the form of thick texture, semi-solid form, white color and odorless. Homogeneity met the requirements, namely being homogeneous, the pH of the preparation was > 8 , the adhesion was 1.13-1.60 seconds, the spreading power was 5.11-5.54 cm, and the viscosity was 7376-10014.67 cP. The stability of the cream was seen from the results of centrifugation which had an F value in the range of 0.88-0.99 and did not show phase separation, as well as comparing the cream before and after the cycling test treatment.

Conclusion : The results of the research that has been done show that the combination of pumpkin seed oil and niacinamide moisturizing cream has physical properties and stability that meet the requirements except for pH and does not cause irritation responses.

Keywords : pumpkin seed oil, niacinamide, cream, moisturizer, maskne