

INTISARI

Lendir bekicot yang mengandung Allantoin yang berfungsi sebagai pelembab kulit, serta Madu bersifat emolien dan memiliki kandungan Flavonoid dan Asam Amino yang dipercaya dapat melembabkan kulit. Kedua bahan alami ini dikombinasikan dalam formula masker gel *peel-off*. Penelitian ini bertujuan untuk mengetahui sifat fisik masker gel *peel-off* lendir bekicot dengan variasi penambahan madu, mengetahui derajat iritasi dan mengetahui aktivitas kenaikan kelembaban kulit.

Desain penelitian ini menggunakan metode eksperimental dengan formula yang telah dioptimasi dari hasil penelitian sebelumnya. Masker gel *peel-off* dibuat menjadi 5 formula yaitu Basis FI, Basis FII, FI, FII, dan FIII menggunakan Polivinil Alkohol (PVA) dan Karboksi Metil Selulosa Natrium (CMC-Na) sebagai *gelling agent*. Formula ini diuji dengan variasi penambahan madu 6%, parameter yang di uji berupa sifat fisik yang meliputi uji organoleptis, pH, daya sebar, daya lekat, viskositas, dan kecepatan mengering. Perubahan tingkat kelembaban responden sebelum dan sesudah memakai gel pelembab diuji menggunakan *skin detector* RoHs model 56-5D terhadap 5 responden. Uji statistik selisih antara kelembaban dianalisis menggunakan uji *One Way ANOVA*. Uji iritasi dilakukan menggunakan dua ekor kelinci albino dengan membuat 6 pola pada punggung kelinci menggunakan metode Draize serta diamati eritema dan edema pada jam ke 24 jam, 48 jam, dan 72 jam.

Hasil penelitian ini diperoleh bahwa, sediaan masker gel *peel-off* dari segi organoleptik tidak mempunyai perbedaan yang signifikan, nilai pH semua formula sama yaitu $5,5 \pm 0$, kecepatan mengering formula berturut-turut dari Basis FI, Basis FII, FI, FII, dan FIII yaitu $26,44 \pm 0,64$ detik; $25,92 \pm 0,40$ detik; $27,13 \pm 0,15$ detik; $29,65 \pm 0,59$ detik; dan $29,6 \pm 0,52$ detik, daya sebar secara berturut-turut $3,99 \pm 1,09$ cm; $4,66 \pm 1,37$ cm; $3,63 \pm 0,92$ cm; $4,67 \pm 1,44$ cm; dan $3,76 \pm 1,18$ cm, daya lekat secara berurut-turut $78,18 \pm 6,62$ detik; $63,43 \pm 5,94$ detik; $58,29 \pm 12,74$ detik; $43,83 \pm 13,74$ detik; dan $38,44 \pm 14,10$ detik, viskositas secara berurut-turut $2048,33 \pm 7,09$ cPs; $2069,33 \pm 3,51$ cPs; $2315,00 \pm 3,61$ cPs; $2301,33 \pm 8,33$ cPs; dan $2314,67 \pm 6,11$ cPs. Hasil tersebut masuk dalam katagori persyaratan gel *peel-off* tipe *semistiff*. Berdasarkan uji aktivitas pelembab kulit menggunakan uji statistik *One-Way ANOVA* kenaikan kelembaban formula tidak berbeda signifikan dalam meningkatkan kelembaban kulit dengan nilai signifikansi 0,323. Sedangkan hasil uji iritasi menunjukkan variasi formula masker FI, FII, dan FIII menyebabkan iritasi kategori sedikit mengiritasi sedangkan formula basis FI dan FII tidak menyebabkan iritasi.

Kata kunci : gel, masker *peel-off*, lendir bekicot, uji iritasi, efektifitas kelembaban

ABSTRACT

Snail mucus that contains Allantoin which functions as a skin moisturizer, and Honey is emollient and contains Flavonoids and Amino Acids which are believed to moisturize the skin. These two natural ingredients are combined in a peel-off gel mask formula. This study aims to determine in physical properties of snail slime peel-off gel masks with variations in the addition of honey, determine the degree of irritation and determine the activity of increasing skin moisture.

The design of this study uses an experimental method with formulas that have been optimized from the results of previous studies. Peel-off gel masks made into 5 formulas namely FI Base, FII Base, FI, FII, and FIII using Polyvinyl Alcohol (PVA) and Carboxy Sodium Methyl Cellulose (CMC-Na) as a gelling agent.. This formula will be tested with a variation of the addition of 6% honey, the parameters tested in the form of physical properties including organoleptic test, pH, spreadability, adhesion, viscosity, and drying speed. Skin moisturizing activity was tested using a RoHs 56-5D model skin detector. Changes in the humidity level of respondents before and after using a moisturizing gel was tested using a RoHs 56-5D model skin detector of 5 respondents. Statistical test of the difference between humidity analyzed using the One Way ANOVA test. The irritation test was carried out using two albino rabbits by making 6 patterns on the rabbit's back using the Draize method and observed erythema and edema at the hour to 24 hours, 48 hours, and 72 hours.

The results of this study found that, the peel-off gel masks form in organoleptic there was no significant difference, the pH values of all formulas were the same ie 5.5 ± 0 . the drying speed of the formula were successively from Base FI, Base FII, FI, FII, and FIII, namely 26.44 ± 0.64 seconds; 25.92 ± 0.40 seconds; 27.13 ± 0.15 seconds; 29.65 ± 0.59 seconds; and 29.6 ± 0.52 seconds, spreadability strength respectively were 3.99 ± 1.09 cm, respectively; 4.66 ± 1.37 cm; 3.63 ± 0.92 cm; 4.67 ± 1.44 cm; and 3.76 ± 1.18 cm, successive adhesion are 78.18 ± 6.62 seconds; 63.43 ± 5.94 seconds; 58.29 ± 12.74 seconds; 43.83 ± 13.74 seconds; and 38.44 ± 14.10 seconds, viscosity respectively 2048.33 ± 7.09 cPs; 2069.33 ± 3.51 cPs; 2315.00 ± 3.61 cPs; 2301.33 ± 8.33 cPs; and 2314.67 ± 6.11 cPs . These results fall into the category of semistiff type peel-off gel requirements. Based on the test of the effectiveness of skin moisturizers using the One-Way ANOVA statistical test both formulas did not differ significantly in increasing skin moisture with a significance value of 0.323 . While the irritation test results showed variations in the formula FI, FII, and FIII masks included in the category of slight irritation while the base formula FI and base FII did not cause irritation.

Keywords: *gel, peel-off mask, snail mucus, irritation test, humidity effectiveness.*

