ABSTRAK

FORMULASI DAN EVALUASI SAMPO DARI KOMBINASI EKSTRAK SELEDRI DAN MINYAK BIJI ANGGUR DENGAN VARIASI EMULGATOR. (Oleh Pratama Aura Nurrisky; Pembimbing Wahyudin Bin Jamaludin dan Hafiz Ramadhan; 2024; 144 Halaman)

Ekstrak etanol 96% seledri konsentrasi 10% dan minyak biji anggur konsentrasi 0,012-0,3 mg/mL, efektif dalam merawat, menyuburkan dan menstimulasi pertumbuhan rambut. Kombinasi kedua bahan tersebut dapat diformulasikan dalam sediaan sampo. Pada pembuatan sampo, emulgator Natrium Lauril Sulfat bersama golongan non-ionik dapat mengurangi efek iritannya dan membantu menstabilkan sediaan. Setiap surfaktan non-ionik memiliki karakteristiknya masing-masing, sehingga perlu di variasikan untuk melihat kombinasi yang tepat dalam menjaga stabilitas sediaan. Penelitian ini bertujuan mengetahui pengaruh variasi emulgator terhadap karakteristik formulasi sampo kombinasi ekstrak seledri dan minyak biji anggur, serta menentukan formulasi yang paling optimal. Ekstraksi pada herba seledri menggunakan maserasi dengan etanol 96%. Sampo diformulasikan menggunakan variasi emulgator non-ionik (*Cocamide DEA* 7%(F1), 8,5%(F2), 10%(F3) dan Alkil Poliglukosida 10%(F4), 15%(F5), 20%(F6)) yang kemudian dievaluasi karakteristik fisik dan kemampuan daya bersihnya. Hasil pengujian menunjukkan semua formula memiliki stabilitas fisik berwarna cokelat kehijauan, berbau khas seledri, kental, tipe emulsi minyak dalam air, tidak terjadi pemisahan fase, homogen kecuali F2, pH 7,60-8,40, viskositas 580-1760 Cp, tinggi busa 1,6-4,0 cm selama *cycling-test*. Hasil yang belum memenuhi persyaratan terdapat pada uji tegangan permukaan (48-54 dyne/cm) dan kemampuan daya bersih (34,47-46,06%). Kesimpulannya yaitu karakteristik ke-6 formula sampo ini memenuhi persyaratan meliputi evaluasi fisik selama stabilitas, kecuali evaluasi tegangan permukaan dan daya bersihnya, dengan formula sampo yang paling optimal adalah F5.

Kata Kunci : Seledri, Minyak Biji Anggur, Sampo, *Cocamide DEA*, Alkil Poliglukosida.

ABSTRACT

FORMULATION AND EVALUATION OF SHAMPOO FROM A COMBINATION OF CELERY EXTRACT AND GRAPE SEED OIL WITH VARIATIONS OF EMULSIFIERS (By Pratama Aura Nurrisky; Advisors Wahyudin Bin Jamaludin & Hafiz Ramadhan; 2024; 144 Pages)

Celery 96% ethanol extract at 10% concentration and Grape seed oil at 0.012-0.3 mg/mL concentration are effective in treating, nourishing, and stimulating hair growth. The combination of two ingredients can be formulated in shampoo. In manufacturing shampoos, Sodium Lauryl Sulfate emulgator along with non-ionic groups can reduce their irritant effect and help stabilize the preparation. Each non-ionic surfactant has its characteristics, so it needs to be varied to see the right combination to maintain the stability of the preparation. This study aims to determine the effect of emulgator variation on the characteristics of a combination shampoo formulation of celery extract and grape seed oil, and determine the most optimal formulation. Extraction of celery herb using maceration with 96% ethanol. The shampoo was formulated using a variety of non-ionic emulgators (Cocamide DEA 7% (F1), 8.5% (F2), 10% (F3) and Alkyl Polyglucoside 10% (F4), 15% (F5), 20% (F6)) which were then evaluated for physical characteristics and cleaning ability. The test results showed that all formulas had physical stability of greenish-brown color, distinctive celery smell, viscous, oil-in-water emulsion type, no phase separation, homogeneous except F2, pH 7.60-8.40, viscosity 580-1760 Cp, foam height 1.6-4.0 cm during the cycling test. Results that did not meet the requirements were in the surface tension test (48-54 dyne/cm) and cleanability (34.47-46.06%). The conclusion is that the characteristics of the six shampoo formulas meet the requirements including physical evaluation during stability, except for the evaluation of surface tension and cleaning power, with the most optimal shampoo formula being F5.

Keywords : *Celery, Grape Seed Oil, Shampoo, Cocamide DEA, Alkyl Polyglucoside.*