

INTISARI

Penelitian ini bertujuan untuk memastikan faktor yang berpengaruh dari proses pencampuran *virgin coconut oil cream* terhadap sifat fisis dan stabilitas fisis krim serta menentukan kondisi optimum yang sesuai pada proses pencampuran yang menghasilkan *virgin coconut oil cream* dengan sifat dan stabilitas fisis krim yang baik. Dalam penelitian ini digunakan formula *virgin coconut oil cream* yang sudah dimodifikasi.

Penelitian ini menggunakan rancangan eksperimental murni dengan metode desain faktorial dua faktor dua level yaitu kecepatan putar (level rendah 400 rpm; level tinggi 600 rpm) dan waktu pencampuran (level rendah 10 menit; level tinggi 30 menit). Pengujian dilakukan untuk melihat sifat fisis antara lain viskositas, dan daya sebar, serta stabilitas fisis yang mencakup pergeseran viskositas yang diamati setelah penyimpanan selama satu bulan. Data hasil penelitian dianalisis secara statistik.

Hasil penelitian ini menunjukkan bahwa kecepatan putar *mixer*, waktu pencampuran, memberikan pengaruh yang signifikan tetapi untuk interaksi kedua faktor memberikan pengaruh yang tidak signifikan terhadap respon viskositas dan daya sebar. Kecepatan putar *mixer*, waktu pencampuran, serta interaksi kedua faktor memberikan pengaruh yang tidak signifikan terhadap respon pergeseran viskositas. Tidak diperoleh kondisi optimum untuk proses pencampuran pada sediaan *virgin coconut oil cream*.

Kata kunci : *virgin coconut oil cream*, desain faktorial, kecepatan putar *mixer*, waktu pencampuran

ABSTRACT

The aims of the research were to determine the factors in the mixing process of the virgin coconut oil cream which significantly affected the physical properties and physical stability of creams and to obtain the optimum condition in the mixing process that produced good virgin coconut oil cream on appropriate physical properties and stability. This research used a modified formula of virgin coconut oil cream.

This research was a pure experimental design based on factorial design using two-factor and two levels. The factors observed were mixing rate (400 rpm and 600 rpm) and mixing time (10 minutes and 30 minutes). The research was carried out to investigate the responses of the physical properties such as viscosity, spreadability, and physical stability (viscosity shift which was observed after one month storage). The data were statistically analyzed.

The results showed that mixing rate and mixing time were significantly affected viscosity and spreadability, but the interaction between them, weren't significantly affected viscosity and spreadability. Mixing rate, mixing time and the interaction between them, were not significantly affected viscosity shift. The optimum condition is not found in this research.

Key words: virgin coconut oil cream, factorial design, mixing rate and mixing time