

ABSTRAK

EMILIA PUTRI SAFIRA., 2023, FORMULASI SEDIAAN KRIM OKTIL METOKSISINAMAT DENGAN VARIASI KONSENTRASI MINYAK JAGUNG (*Corn Oil*) SEBAGAI *SUN PROTECTING FACTOR* (SPF), SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA, Dibimbing oleh apt. Dewi Ekowati, S.Si., M.Sc. dan apt. Vivin Nopiyanti, M.Sc.

Krim tabir surya adalah sediaan yang berfungsi sebagai perlindungan kulit dari sinar matahari, terutama sinar UV, yang menyebabkan masalah kulit seperti sunburn, penuaan dini, dan risiko terjadinya kanker kulit. Kandungan minyak jagung yang mempunyai aktivitas tabir surya salah satunya senyawa fenolik yang berpotensi fotoprotektif pada tabir surya. Tujuan penelitian ini untuk mengetahui pengaruh variasi konsentrasi minyak jagung dalam krim tabir surya oktil metoksisinamat terhadap stabilitas mutu fisik, peningkatan nilai SPF, dan formula yang mempunyai nilai SPF paling tinggi.

Penelitian ini menggunakan sediaan krim tabir surya dibuat 6 formula yaitu formula a (basis krim), formula b (basis+oktil 6%), formula c (basis+minyak jagung 10%), formula 1 (minyak jagung 5%), formula 2 (minyak jagung 10%), formula 3 (minyak jagung 15%), dimana formula 1 sampai 3 dengan penambahan oktil metoksisinamat 6%. Krim dibuat dengan menambahkan minyak jagung sebagai zat aktif untuk mengetahui nilai spf pada sediaan krim. Evaluasi krim tabir surya meliputi uji organoleptik, homogenitas, pH, daya sebar, daya lekat, viskositas, tipe krim dan uji stabilitas dengan penentuan nilai SPF secara spektrofotometri Uv-Vis dilanjutkan dengan uji statistik menggunakan SPSS.

Hasil penelitian didapatkan krim homogen, tipe emulsi m/a, pH 6,4-7,1. Hasil SPF menunjukkan semakin tinggi konsentrasi minyak jagung, semakin tinggi nilai SPF yang dihasilkan. Nilai SPF paling tinggi adalah formula 3 (minyak jagung 15%) 36,80. Pengaruh konsentrasi Minyak Jagung (*Corn Oil*) terhadap nilai SPF dapat meningkatkan nilai SPF krim tabir surya.

Kata kunci : Krim tabir surya, Minyak jagung, oktil metoksisinamat, SPF

ABSTRACT

EMILIA PUTRI SAFIRA, 2023, FORMULATION OF OCTYL METHOXYNAMATIC CREAM PREPARATIONS WITH VARIED CONCENTRATIONS OF CORN OIL AS SUN PROTECTING FACTOR (SPF), THESIS, BACHELOR OF PHARMACY, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by apt. Dewi Ekowati, S.Sc., M.Sc. and apt. Vivin Nopiyanti, M.Sc.

Sunscreen cream is a preparation that functions to protect the skin from sunlight, especially UV rays, which cause skin problems such as sunburn, premature aging, and the risk of skin cancer. Corn oil contains sunscreen activity, one of which is phenolic compounds which have the potential to be photoprotective in sunscreen. The aim of this research was to determine effect of variations corn oil concentration in octyl methoxycinnamate sunscreen cream on the stability of physical quality, increasing the SPF value, and the formula that had the highest SPF value.

This study used sunscreen cream preparations made in 6 formulas, namely formula a (cream base), formula b (base+ 6% octyl), formula c (base+ 10% corn oil), formula 1 (5% corn oil), formula 2 (10% corn oil), formula 3 (15% corn oil), where formulas 1 to 3 add 6% octyl methoxycinnamate. Cream is made by adding corn oil as an active ingredient to determine the SPF value of the cream preparation. Evaluation of sunscreen cream includes organoleptic tests, homogeneity, pH, spreadability, stickiness, viscosity, type of cream and stability test by determining the SPF value using Uv-Vis spectrophotometry followed by statistical tests using SPSS.

The research results showed the cream homogeneous, m/a emulsion type, pH 6.4-7.1. SPF results showed that the higher the concentration of corn oil, the higher SPF value produced. The highest SPF value was formula 3 (15% corn oil) 36.80. The effect of Corn Oil concentration on SPF value can increase the SPF value of sunscreen cream.

Keywords: Sunscreen cream, Corn oil, octyl methoxycinnamate, SPF