ABSTRAK

KALISTUS TIRTA KUSUMA, 2026, FORMULASI DAN UJI NILAI SPF EMULGEL MINYAK SACHA INCHI (*Plukenetia volubilis L.*), KARYA TULIS ILMIAH, PROGRAM STUDI D-III FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh apt. Taufik Turahman, S. Farm., M.Farm.

Minyak Sacha Inchi (Plukenetia volubilis L.) mengandung vitamin E dan asam lemak esensial yang berperan penting melindungi kulit dari paparan sinar ultraviolet. Salah satu bentuk sediaan yang sesuai adalah emulgel karena menggabungkan keunggulan emulsi dan gel, sehingga bahan aktif mudah terdispersi, merata, dan lebih cepat diserap kulit. Penelitian ini bertujuan memformulasikan emulgel berbahan minyak Sacha Inchi serta mengevaluasi mutu fisik, dan uji stabilitas dengan variasi konsentrasi dari minyak sacha inchi.

Emulgel dibuat dalam tiga formula dengan variasi konsentrasi minyak sacha inchi (F1 5%, F2 10%, F3 15%). Evaluasi mutu fisik sediaan emulgel meliputi uji organoleptis, pH, viskositas, daya sebar, daya lekat, homogenitas.Seluruh data yang diperoleh dianalisis secara statistik menggunakan metode Anova.

Hasil penelitian menunjukkan seluruh formula memenuhi persyaratan mutu fisik dengan stabil, dan homogen kecuali uji daya sebar karena, formula 2 memiliki daya sebar lebih tinggi dibandingkan formula 1 dan 3 hal. Formula F3 menunjukkan hasil terbaik, dengan demikian, variasi konsentrasi minyak Sacha Inchi berpengaruh terhadap sifat fisik.

Kata kunci: Sacha Inchi, emulgel, stabilitas fisik

ABSTRACT

KALISTUS TIRTA KUSUMA, 2026, FORMULATION AND SPF VALUE TEST OF SACHA INCHI OIL (Plukenetia volubilis L.) EMULGEL SUNSCREEN IN VITRO, SCIENTIFIC PAPER, DIPLOMA IN PHARMACY STUDY PROGRAM, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by: apt. Taufik Turahman, S. Farm., M.Farm.

Sacha Inchi oil (*Plukenetia volubilis* L.) contains vitamin E and essential fatty acids that are beneficial for skin health. One suitable dosage form is emulgel, as it combines the advantages of emulsions and gels, ensuring that active ingredients are easily dispersed, evenly spread, and more efficiently absorbed by the skin. This study aims to formulate a Sacha Inchi oil-based emulgel and evaluate its physical quality and stability across various concentrations.

The emulgel was prepared in three formulas with varying Sacha Inchi oil concentrations (F1 5%, F2 10%, and F3 15%). The physical quality evaluations included organoleptic, pH, viscosity, spreadability, adhesion, and homogeneity tests.

Data were statistically analyzed using the ANOVA method. The results indicated that all formulas met the required physical quality standards for stability and homogeneity. Notably, Formula 2 showed higher spreadability compared to Formulas 1 and 3. Formula 3 provided the most optimal results, confirming that variations in Sacha Inchi oil concentration significantly affect the physical properties of the emulgel.

Keywords: Sacha Inchi, emulgel, physical stability.