

INTISARI

Penelitian ini berfokus pada pengembangan sediaan *dry body oil* dengan kombinasi minyak biji sacha inchi (*Plukenetia volubilis*) dan minyak nyamplung (*Calophyllum inophyllum*) yang memiliki potensi sebagai antioksidan. Tujuan penelitian adalah mengevaluasi mutu fisik sediaan dengan memvariasikan konsentrasi isopropyl miristat dan siklometikon, serta menilai aktivitas antioksidan dari kombinasi kedua minyak.

Metode ABTS (2,2-azinobis-3-Ethylbenzothiazoline-6-Sulfonic Acid) digunakan untuk mengevaluasi aktivitas antioksidan, sedangkan mutu fisik dievaluasi melalui uji organoleptis, homogenitas, pH, viskositas, dan *cycling test*. Analisis data dilakukan menggunakan excel dan SPSS dengan berbagai metode statistik.

Hasil menunjukkan kombinasi minyak biji sacha inchi (*Plukenetia volubilis*) dan minyak nyamplung (*Calophyllum inophyllum*) dengan perbandingan 5% : 3% menghasilkan aktivitas antioksidan tertinggi dengan nilai IC_{50} 118,50 $\mu\text{g/mL}$ (kategori sedang), mendekati standar vitamin C (IC_{50} 150,30 $\mu\text{g/mL}$). Formulasi terbaik ditemukan pada formulasi 2 dengan konsentrasi isopropil miristat 3% dan siklometikon 7,5% memenuhi semua standar mutu dan persyaratan fisik yang baik. Formulasi optimum menunjukkan peningkatan signifikan aktivitas antioksidan (IC_{50} 2,16 $\mu\text{g/mL}$) dan tetap stabil setelah *cycling test* dilakukan (IC_{50} 4,39 $\mu\text{g/mL}$), setara dengan kontrol positif (IC_{50} 4,32 $\mu\text{g/mL}$).

Kata kunci: antioksidan, *body oil*, kosmetik, Nyamplung, Sacha Inchi

ABSTRACT

This research focuses on developing dry body oil preparations using a combination of sacha inchi seed oil (*Plukenetia volubilis*) and nyamplung oil (*Calophyllum inophyllum*) with antioxidant potential. The research aims to evaluate the physical quality of the preparation by varying the concentrations of isopropyl myristate and cyclomethicone, as well as assessing the antioxidant activity of the combination of both oils.

The ABTS (2,2-azinobis-3-Ethylbenzothiazoline-6-Sulfonic Acid) method was used to evaluate antioxidant activity, while physical quality was evaluated through organoleptic tests, homogeneity, pH, viscosity, and cycling tests. Data analysis was performed using Excel and SPSS with various statistical methods.

Results showed that the combination of sacha inchi seed oil (*Plukenetia volubilis*) and nyamplung oil (*Calophyllum inophyllum*) at a ratio of 5%:3% produced the highest antioxidant activity with an IC_{50} value of 118.50 $\mu\text{g/mL}$ (moderate category), approaching the vitamin C standard (IC_{50} 150.30 $\mu\text{g/mL}$). The best formulation was found in formulation 2 with 3% isopropyl myristate and 7.5% cyclomethicone concentrations, meeting all quality standards and good physical requirements. The optimum formulation showed significant improvement in antioxidant activity (IC_{50} 2.16 $\mu\text{g/mL}$) and remained stable after cycling test (IC_{50} 4.39 $\mu\text{g/mL}$), equivalent to the positive control (IC_{50} 4.32 $\mu\text{g/mL}$).

Keywords: antioxidant, body oil, cosmetics, Nyamplung, Sacha Inchi