

ABSTRAK

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Program Studi : Sarjana Farmasi
Judul : Formulasi dan Stabilitas Fisik Sediaan Krim Pewarna Rambut Dari Ekstrak Etanol Kayu Secang (*Biancheae sappan* (L.) Tod.) Sebagai Antioksidan.

Kayu secang (*Biancheae sappan* (L.) Tod) secara tradisional dimanfaatkan sebagai pewarna alami yang mengandung senyawa aktif brazilin. Penelitian ini bertujuan mengembangkan sediaan krim pewarna rambut berbahan dasar ekstrak kayu secang, yang berfungsi sebagai pewarna sekaligus agen antioksidan. Ekstrak digunakan dalam dua konsentrasi, yaitu 6% dan 12%, untuk diformulasikan menjadi krim, kemudian diuji stabilitas fisik, aktivitas antioksidan, serta potensi iritasinya. Evaluasi dilakukan terhadap homogenitas, pH, viskositas, daya sebar, daya lekat, dan stabilitas warna. Aktivitas antioksidan diukur menggunakan metode DPPH, sedangkan uji iritasi dilakukan melalui *patch test*. Hasil menunjukkan bahwa kedua formulasi memiliki stabilitas fisik yang baik, memiliki aktivitas antioksidan lemah dan sedang pada konsentrasi 6% dan 12%, dan tidak menimbulkan iritasi kulit. Dengan demikian, krim pewarna rambut berbahan dasar ekstrak kayu secang berpotensi dikembangkan sebagai produk kosmetik alami yang aman, efektif, dan ramah lingkungan.

Kata Kunci : Antioksidan, DPPH, ekstrak (*Biancheae sappan* (L.) Tod.), Krim pewarna rambut, uji iritasi.

ABSTRACT

Name : Muhammad Yusuf Kurniawan
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Title : Formulation and Physical Stability of Hair Dye Cream from Ethanol Extract of Secang Wood (*Biancheae sappan* (L.) Tod) as an Antioxidant.

Sappan wood (*Biancheae sappan* (L.) Tod) has traditionally been used as a natural dye containing the active compound brazilin. This study aimed to develop a hair dye cream formulation based on sappan wood extract, which functions both as a coloring agent and an antioxidant. The extract was used at two concentrations, 6% and 12%, to be formulated into creams, which were then evaluated for physical stability, antioxidant activity, and irritation potential. Evaluations were conducted on homogeneity, pH, viscosity, spreadability, adhesion, and color stability. Antioxidant activity was measured using the DPPH method, while irritation testing was performed through a patch test. The results showed that both formulations exhibited good physical stability, demonstrated weak and moderate antioxidant activity at 6% and 12% concentrations, respectively, and did not cause skin irritation. Therefore, hair dye creams containing sappan wood extract have the potential to be developed as safe, effective, and environmentally friendly natural cosmetic products.

Keywords: Antioxidant, DPPH, extract (*Biancheae sappan* (L.) Tod), hair dye cream, irritation test.