

ABSTRAK

RISA NUR IFATURROHMAH, 2021, UJI AKTIVITAS ANTIBAKTERI SABUN MANDI CAIR EKSTRAK ETANOL KAYU SECANG (*Caesalpinia sappan*, L) TERHADAP BAKTERI *Staphylococcus epidermidis* ATCC 12228, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA

Penyakit kulit merupakan penyakit infeksi yang disebabkan bakteri, salah satunya biang keringat yang disebabkan karena tersumbatnya saluran keringat oleh bakteri *Staphylococcus epidermidis*. Senyawa *brazilin* pada kayu secang mempunyai aktivitas antibakteri. Tujuan penelitian ini untuk mengetahui mutu fisik sabun cair dan daya hambat terhadap pertumbuhan *Staphylococcus epidermidis* ATCC 12228.

Ekstrak diperoleh dari proses maserasi menggunakan etanol 96%. Sabun cair diformulasikan menggunakan variasi konsentrasi ekstrak 1%; 1,5%; dan 2%. Metode pembuatan sabun cair secara *hot process* menggunakan alat *stirrer*. Parameter uji sabun mandi cair meliputi uji organoleptis, viskositas, pH, alkali bebas, tinggi busa, iritasi terhadap kulit, uji stabilitas *cycling test*, dan uji daya hambat terhadap bakteri *Staphylococcus epidermidis* ATCC 12228 dengan metode *disc diffusion*. Analisis hasil menggunakan SPSS dengan pengujian *One Way ANOVA* dan uji *Post Hoc Tukey*.

Hasil penelitian menunjukkan formulasi sabun mandi cair ekstrak kayu secang memiliki mutu fisik dan stabilitas yang baik serta memiliki aktivitas antibakteri. Formula dengan konsentrasi ekstrak 2% menjadi formula terbaik dengan nilai pH 10,94, viskositas 7 dPas, kadar alkali bebas 0,1 %, dan tinggi busa 15 cm serta menghasilkan zona hambat sebesar 20,04 mm dengan kategori sangat kuat.

Kata kunci : Ekstrak kayu secang, Sabun mandi cair, *Staphylococcus epidermidis*

ABSTRACT

RISA NUR IFATURROHMAH, 2021, ANTIBACTERIAL ACTIVITY TEST OF LIQUID SOAP ETHANOL EXTRACT OF SAPPAN WOOD (*Caesalpinia sappan*, L) AGAINST *Staphylococcus epidermidis* ATCC 12228, ESSAY, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA

Skin disease is an infectious disease caused by bacteria. One of which is prickly heat caused by clogged sweat ducts by the bacterium *Staphylococcus epidermidis*. The *brazilin* compound in sappan wood has antibacterial activity. The purpose of this research was to determine the physical quality of liquid soap and its inhibition on the growth of *Staphylococcus epidermidis* ATCC 12228.

The extract was obtained from the maceration process using 96% ethanol. Liquid soap formulation with various extract concentrations included 1%, 1.5%, and 2% (F3). The method of making liquid soap is a hot process using a *stirrer*. The test parameters of liquid bath soap include organoleptic test, viscosity, pH, free alkali, high foam, irritation to skin, *cycling test* stability test, and inhibition test against *Staphylococcus epidermidis* ATCC 12228 with disc diffusion method. Analysis of the results using SPSS with *One Way ANOVA* test and *Post Hoc Tukey* test.

The results showed that the formulation of sappan wood extract liquid bath soap had good physical quality and stability and had antibacterial activity. The formula with an extract concentration of 2% was the best formula with a pH value of 10,94, viscosity 7 dPas, 0,1% free alkali content, and 15 cm foam height and resulted in an inhibition zone of 20,04 mm with a very strong category.

Key word : Liquid soap, Sappan wood extract, *Staphylococcus epidermidis*