

ABSTRAK

Pembuatan sabun berbahan dasar alami telah banyak dikembangkan untuk mendapatkan jenis sabun terbaik dan aman bagi kesehatan. Minyak biji nyamplung merupakan bahan alam yang berpotensi digunakan sebagai bahan utama dalam pembuatan sabun. Penelitian sebelumnya telah melakukan formulasi sabun dari minyak biji nyamplung dengan penambahan zat antioksidan alami dan diperoleh sabun antioksidan dengan karakteristik yang sesuai dengan SNI. Penelitian ini akan mengkaji sumber bahan antioksidan alami lainnya yakni ekstrak daun kelor dan dengan penambahan pembusa SLS. Oleh karena itu telah dilakukan pengkajian variasi kadar ekstrak daun kelor dan pembusa SLS guna memperoleh sabun dengan karakteristik terbaik yang sesuai syarat mutu SNI 3532-2016. Sabun karakterisasi terbaik diuji aktivitas antioksidannya dengan metode DPPH. Hasil penelitian menunjukkan sabun karakteristik terbaik yang nilainya mendekati syarat SNI 3532-2016 adalah sabun P1A3 dengan penambahan pembusa SLS 1% dan ekstrak daun kelor 0,5%. Karakteristik sabun terbaik menunjukkan jumlah lemak total 43,615%, asam lemak bebas 1,3281%, jumlah lemak netral 3,5295%, nilai pH 9,9, dan stabilitas busa 72,3890%. Hasil uji aktivitas antioksidan pada sabun P1A3 diperoleh nilai IC_{50} 134,0639 ppm, yang berarti sabun memiliki aktivitas antioksidan sedang.

Kata kunci : sabun, antioksidan, daun kelor, SLS (*Sodium Lauryl Sulfate*)



ABSTRACT

Natural-base soap making has been developed to get the best type of soap and safe for health. Nyamplung seed oil is a natural ingredient that has the potential to be used as the main ingredient in soap making. Previous research had conducted soap formulation from nyamplung seed oil with the addition of natural antioxidants and obtained antioxidant soap with characteristics in accordance with SNI (Indonesian National Standard). This research was examine other source of natural antioxidant ingredients, namely moringa leaf extract and the addition of SLS (Sodium Laureth Sulfate) foaming. Therefore, it had been conducted a variations assessment in levels of Moringa leaf extract and SLS (Sodium Laureth Sulfate) foaming in order to obtain soap with the best characteristics according to the quality requirements of SNI (Indonesian National Standard) 3532-2016. The formulation results with the best characterization were tested for their antioxidant activity using the DPPH method. The results of the soap with the best characteristics according to SNI (Indonesian National Standard) 3532-2016 was P1A3 soap with the addition of 1% SLS foaming agent 0.5% Moringa leaf methanol extract. The characteristics of the best soap showed the amount of fatty acids 43.615%, 1.3281% free fatty acids, the amount of neutral fat 3.5295%, a pH value of 9.9, and 72.3890% foam stability. The results of the antioxidant activity test on the best characterization soap obtained IC_{50} values of 134.0639 ppm, which means that the soap has moderate antioxidant activity.

Keyword: soap, antioxidants, Moringa leaf, SLS (Sodium Laureth Sulfate)

