

## ABSTRAK

Bahan aktif sintetik *triclosan* sebagai zat antibakteri dalam sabun dapat mengakibatkan resistensi antimikroba. Ekstrak kulit nanas madu mengandung senyawa flavonoid, alkaloid, tanin, saponin dan terpenoid yang berpotensi sebagai senyawa antibakteri. Penelitian ini bertujuan untuk memformulasikan sediaan sabun cuci tangan cair dengan bahan aktif ekstrak kulit nanas madu, melakukan karakterisasi terhadap sediaan, dan mengetahui aktivitas antibakterinya. Formulasi sabun cuci tangan cair dibuat dengan metode *semi boiled*. Karakterisasi sediaan meliputi uji pH, tinggi dan kestabilan busa, viskositas, kandungan alkali bebas, dan organoleptik. Uji aktivitas antibakteri sediaan menggunakan metode difusi sumuran. Sabun dibuat dengan memformulasikan minyak kelapa sawit, KOH 20%, CMC, asam stearat, SLS, asam sitrat, akuades, pewangi dan ekstrak kulit nanas madu dengan variasi konsentrasi 0,1; 0,5; dan 1 ppm. Formulasi sabun cuci tangan cair dengan ekstrak kulit nanas madu 1 ppm menunjukkan hasil terbaik. Hasil karakterisasi sabun telah memenuhi standar SNI dengan memperoleh pH 10,78, tinggi busa awal 44 mm, tinggi busa akhir 41 mm, stabilitas busa 94,21%, viskositas 32 cP, dan alkali bebas 0,08%. Uji organoleptik menunjukkan sediaan berbentuk cair, berwarna kuning, dan berbau khas. Karakterisasi sabun cuci tangan cair telah memenuhi standar SNI. Uji aktivitas antibakteri terhadap *Escherichia coli* didapatkan zona hambat 4,48 mm.

**Kata kunci :** antibakteri, ekstrak kulit nanas madu, *Escherichia coli*, sabun cuci tangan cair.

## ABSTRACT

The synthetic active ingredient of *triclosan* as an antibacterial agent in the soaps can result in antimicrobial resistance. Honey pineapple peel extract contained flavonoids, alkaloids, tannins, saponins and terpenoids was potentially an antibacterial compound. The aim of the study was to formulated liquid handwash with the active ingredient of honey pineapple peel extract, characterized the preparation, and determined antibacterial activity. The liquid handwash was formulated using a semi-boiled process method. The characterization of the preparations included pH test, height and stability of the foam, viscosity, free alkali content, and organoleptic. The antibacterial activity was determined by a well diffusion method. The soap was formulated using palm oil, KOH 20%, CMC, stearic acid, SLS, citric acid, aquadest, fragrance and honey pineapple skin extract. The formula of liquid handwash with honey pineapple peel extract 1 ppm was the best product. The results of characterization of soap had met SNI standards with a pH 10.78, initial foam height 44 mm, final foam height 41 mm, foam stability 94.21%, viscosity 32 cP, and alkali-free 0.08%. The organoleptic test showed the preparation was liquid, yellow in color and a distinctive aroma. The antibacterial activity test against *Escherichia coli* obtained an inhibition zone of 4.48 mm.

**Keywords** : antibacterial, *Escherichia coli*, honey pineapple peel extract, liquid handwash,

