

## ***ABSTRACT***

Rosella is a plant which is used as an antioxidant. The content that acts an antioxidant is rutin compounds. The purpose of this study to determine the effect of propylene glycol (PG) and Oleic Acid (OA) enhancers against the properties and stability physical and the antioxidant activity of lotion. Antioxidant activity test was done by 2,2-Diphenyl-1-picrylhydrazil (DPPH) method and then calculated the percentage inhibition. To get the effect of antioxidant, the formulation of lotion was needed with the composition addition enhancers of PG and AO : formulation I (without enhancer), formula II (AO 100%), formula III (AO 50% and PG 50%), and formula IV (PG 100%). The study results showed that the addition of enhancer on the lotion has increased antioxidant activity where the value of percentage inhibition from formulation I to formulation IV were 15,625%, 17,7319%, 24,778%, 25,719% respectively. Moreover, ethanol extract of purple rosella flower was also have properties and physical stability better after done the physical stability test includes organoleptic observations, homogeneity, pH test, dispersion and adhesion.

**Keywords:** *lotion*, ethanol extract of purple rosella, antioxidant, DPPH

## INTISARI

Tanaman rosella ungu (*Hibiscus Sabdariffa L.*) merupakan tanaman yang bermanfaat sebagai antioksidan. Kandungan yang berperan sebagai antioksidan salah satunya yaitu senyawa rutin. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh pemberian *enhancer* propilen glikol (PG) dan asam oleat (AO) terhadap sifat dan stabilitas fisik serta aktivitas antioksidan *lotion*. Uji aktivitas antioksidan dilakukan menggunakan metode *2,2-Diphenyl-1-picrylhidrazil* (DPPH) kemudian dihitung persen (%) inhibisinya. Untuk mendapatkan efek antioksidan diperlukan formulasi berupa *lotion* dengan penambahan komposisi *enhancer* PG dan AO sebagai berikut : formula I (tanpa *enhancer*), formula II (AO 100%), formula III (AO 50% dan PG 50%), dan formula III (PG 100%). Hasil penelitian menunjukkan bahwa penambahan *enhancer* pada *lotion* meningkatkan aktivitas antioksidan dimana formula I memiliki nilai % inhibisi 15,625% sedangkan formula II memiliki nilai % inhibisi 17,731%, formula III memiliki nilai inhibisi 24,778%, dan formula IV 25,719%. Selain itu *lotion* ekstrak etanol bunga rosella ungu juga memiliki sifat dan stabilitas fisik yang baik setelah dilakukan uji stabilitas fisik meliputi uji organoleptis, uji homogenitas, uji pH, uji daya lekat serta uji daya sebar.

**Kata kunci :** *lotion*, ekstrak etanol bunga rosella ungu, antioksidan, DPPH