

## ABSTRACT

### **FORMULATION OF FACIAL WASH BUTTERFLY PEA FLOWER EXTRACT (*Clitoria ternatea L.*) WITH VARIATION CONCENTRATION OF CARBOPOL 940**

**Faradhita Kusuma Wardhani**  
**NIM 402019718011**

Facial skin problems can occur in everyone, such as acne, dark spots, dull skin, wrinkles, etc. The butterfly pea flower (*Clitoria ternatea L.*) is a plant with various activities such as antibacterial and antioxidant. It can help prevent various facial skin problems. The study aimed to determine the concentration and effect of carbopol 940 on the characteristics of facial wash preparations. This research was experimental by extracting butterfly pea flowers using the maceration method and 70% ethanol solvent. Then a facial wash preparation was made with variations in the concentration of carbopol 940 as a gelling agent, namely 1%, 1.5%, and 2%. Data analysis was carried out by comparing characteristic evaluation results with SNI, and stability results were analyzed using Paired T-test. The results showed the characteristics of butterfly pea flower facial wash with variations in carbopol concentration 940 had a dark blue to dark purple color, had a slightly liquid viscous texture to very thick, smells typical of butterfly pea flowers, and was homogeneous. As well as the results of the evaluation of the pH of the preparation were suitable, the viscosity of the preparation was suitable, the foaming power of the preparation is suitable, and the dispersal power of the preparation was suitable. The addition of carbopol concentration 940 affects the pH, viscosity, and dispersion. So, if the higher concentration of carbopol, it would cause the viscosity of the preparation to be higher, and would be inversely proportional to the pH and dispersion power of preparation that was getting lower. In addition, it also affects the intensity of the color of the preparation. The best facial wash formula based on characteristic evaluation was F1 preparation with a carbopol concentration of 940 of 1% because it meets the SNI requirements.

**Keywords:** Butterfly pea flower, facial wash, gelling agent, carbopol 940

## ABSTRAK

### FORMULASI FACIAL WASH BUTTERFLY EKSTRAK BUNGA PEA (*Clitoria ternatea L.*) DENGAN VARIASI KONSENTRASI CARBOPOL 940

**Faradhita Kusuma Wardhani**  
**NIM 402019718011**

Masalah kulit wajah dapat terjadi pada setiap orang, seperti jerawat, flek hitam, kulit kusam, keriput, dll. Bunga telang (*Clitoria ternatea L.*) merupakan tanaman dengan berbagai aktivitas seperti antibakteri dan antioksidan. Dapat membantu mencegah berbagai masalah kulit wajah. Penelitian bertujuan untuk mengetahui konsentrasi dan pengaruh karbopol 940 terhadap karakteristik sediaan facial wash. Penelitian ini bersifat eksperimental dengan mengekstraksi bunga telang dengan metode maserasi dan pelarut etanol 70%. Kemudian dibuat sediaan facial wash dengan variasi konsentrasi karbopol 940 sebagai gelling agent yaitu 1%, 1,5%, dan 2%. Analisis data dilakukan dengan membandingkan hasil evaluasi karakteristik dengan SNI, dan hasil stabilitas dianalisis menggunakan Paired T-test. Hasil penelitian menunjukkan karakteristik facial wash bunga telang dengan variasi konsentrasi karbopol 940 memiliki warna biru tua hingga ungu tua, tekstur kental agak cair hingga sangat kental, berbau khas bunga telang, dan homogen. Serta hasil evaluasi pH sediaan sesuai, viskositas sediaan sesuai, daya buih sediaan sesuai, dan daya sebar sediaan sesuai. Penambahan konsentrasi karbopol 940 mempengaruhi pH, viskositas, dan dispersi. Sehingga semakin tinggi konsentrasi karbopol akan menyebabkan viskositas sediaan semakin tinggi, dan berbanding terbalik dengan pH dan daya sebar sediaan semakin rendah. Selain itu juga mempengaruhi intensitas warna sediaan. Formula facial wash terbaik berdasarkan evaluasi karakteristik adalah sediaan F1 dengan konsentrasi karbopol 940 sebesar 1% karena memenuhi persyaratan SNI.

***Kata kunci: Bunga telang, facial wash, gelling agent, carbopol 940***