ANALISIS KADAR ASAM SALISILAT PADA PRODUK KOSMETIK GEL ANTI JERAWAT DI TOKO X KOTA BATAM

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ABSTRAK

Asam salisilat merupakan salah satu bahan aktif yang banyak digunakan dalam sediaan kosmetik anti jerawat karena memiliki efek keratolitik, eksfoliatif, dan pembersih pori-pori. Namun, penggunaan dengan kadar berlebih dapat menimbulkan iritasi kulit, sehingga diperlukan pengawasan terhadap produk yang beredar di pasaran. Penelitian ini bertujuan untuk mengetahui keberadaan dan kadar asam salisilat dalam sediaan gel anti jerawat yang dijual di Toko X Kota Batam serta menilai kesesuaiannya dengan batas maksimum yang ditetapkan BPOM, yaitu ≤2%. Penelitian ini menggunakan metode eksperimen laboratorium dengan pendekatan kualitatif dan kuantitatif. Pengambilan sampel dilakukan secara purposive sampling terhadap tiga produk gel anti jerawat yang memenuhi kriteria inklusi dan eksklusi. Uji kualitatif dilakukan dengan pereaksi $FeCl_3$ untuk mendeteksi gugus fenol pada asam salisilat, sedangkan penetapan kadar kuantitatif dilakukan menggunakan spektrofotometri UV-Vis pada panjang gelombang maksimum 297,20 nm. Hasil uji kualitatif menunjukkan bahwa sampel A dan B positif mengandung asam salisilat, sedangkan sampel C negatif. Analisis kuantitatif menunjukkan kadar asam salisilat pada sampel A sebesar 0,828% dan pada sampel B sebesar 1,087%, sementara sampel C tidak terdeteksi. Nilai kadar asam salisilat tersebut masih berada dalam ambang batas aman sesuai ketentuan BPOM.

Kata kunci: Asam salisilat, gel anti jerawat, spektrofotometri UV-Vis, kosmetik, Kota Batam

ANALYSIS OF SALICYLIC ACID LEVELS IN ANTI-ACNE GEL COSMETIC PRODUCTS AT STORE X IN BATAM CITY

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ABSTRACT

Salicylic acid is one of the active ingredients widely used in anti-acne cosmetic preparations because it has keratolytic, exfoliative, and pore-cleansing effects. However, excessive use can cause skin irritation, so supervision of products on the market is necessary. This study aims to determine the presence and concentration of salicylic acid in acne-fighting gel products sold at Store X in Batam City and to assess their compliance with the maximum limit set by the Indonesian Food and Drug Administration (BPOM), which is ≤2%. This study used a laboratory experimental method with a qualitative and quantitative approach. Samples were taken using purposive sampling from three acne gel products that met the inclusion and exclusion criteria. Qualitative testing was performed with $FeCl_3$ reagent to detect phenol groups in salicylic acid, while quantitative determination was performed using UV-Vis spectrophotometry at a maximum wavelength of 297.20 nm. The qualitative test results showed that samples A and B were positive for salicylic acid, while sample C was negative. Quantitative analysis showed that the salicylic acid content in sample A was 0.828% and in sample B was 1.087%, while sample C was not detected. These salicylic acid content values are still within the safe threshold as stipulated by BPOM.

Keywords: *Salicylic acid, acne gel, UV-Vis spectrophotometry, cosmetics, Batam City.*

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