

## INTISARI

Metilparaben dan propilparaben adalah pengawet yang banyak digunakan dalam *hand and body lotion*. Keputusan Kepala Badan Pengawas Obat dan Makanan (POM) Republik Indonesia No.HK.00.05.4.1745, tanggal 5 Mei 2003, tentang kosmetik, menyebutkan bahwa batas maksimum kadar pengawet paraben dan turunannya adalah 0,4% untuk ester tunggal dan 0,8% untuk ester campuran. Oleh karena itu, kadar metilparaben dan propilparaben dalam *hand and body lotion* perlu ditetapkan.

Penelitian ini merupakan jenis penelitian non eksperimental deskriptif. Pada penelitian ini penetapan kadar metilparaben dan propilparaben dalam *hand and body lotion* dilakukan dengan metode spektrofotometri ultraviolet secara panjang gelombang berganda. Kadar metilparaben dan propilparaben ditetapkan secara serentak tanpa pemisahan terlebih dahulu. Panjang gelombang berganda menggunakan prinsip persamaan regresi berganda (*multivariate regression*) melalui perhitungan operasi matriks dengan pengamatan pada panjang gelombang berganda (*multiple wavelengths*) yang berada pada daerah tumpang tindih spektra serapan 2 komponen.

Berdasarkan analisis hasil yang dilakukan, kadar metilparaben dalam sampel *hand and body lotion* merek "X" adalah  $-1,9375 \pm 0,0237$  mg/g dengan harga koefisien variansi (KV) -24,48%, sedangkan kadar propilparaben adalah  $3,0095 \pm 0,0266$  mg/g dengan harga koefisien variansi (KV) 17,66%. Pada penelitian ini kadar metilparaben dan propilparaben tidak dapat ditetapkan karena prosedur isolasi tidak optimal.

Kata kunci : *Hand and body lotion*, metilparaben, propilparaben, metode spektrofotometri ultraviolet, panjang gelombang berganda

## ***ABSTRACT***

Methylparaben and propylparaben were preservatives which many used in hand and body lotion. The decision of the Republic Indonesia's foreman of supervisor drug and food committee No.HK.00.05.4.1745, May 5<sup>th</sup> 2003, about cosmetics, mentioned that maximum limit of methylparaben and propylparaben concentration was 0,4% as single preservative and 0,8% as mixed preservative. Because of that, concentration of methylparaben and propylparaben in hand and body lotion was obliged to be determinated.

This research was a non-experimental descriptive research. In this research, determination of methylparaben and propylparaben in hand and body lotion used ultraviolet spectrophotometry method by multiple wavelengths. Concentration of metilparaben and propilparaben was determinated jointly without separation previous. The principle of multiple wavelengths was multivariate regression comparison through matrix calculation with observation on multiple wavelengths which wavelengths were on overlapping spectra of 2 components.

Based on analysis result, concentration of methylparaben in sample hand and body lotion "X" was  $1,9375 \pm 0,0237$  mg/g with coefficient of variation (CV) -24,48%, while concentration of propylparaben was  $3,0095 \pm 0,0266$  mg/g with coefficient of variation (CV) 17,66%. On this research concentration of methylparaben and propylparaben could not be determinated because isolation procedure was not optimal

**Key words :** Hand and body lotion, methylparaben, propylparaben, ultraviolet spectrophotometry method, multiple wavelengths