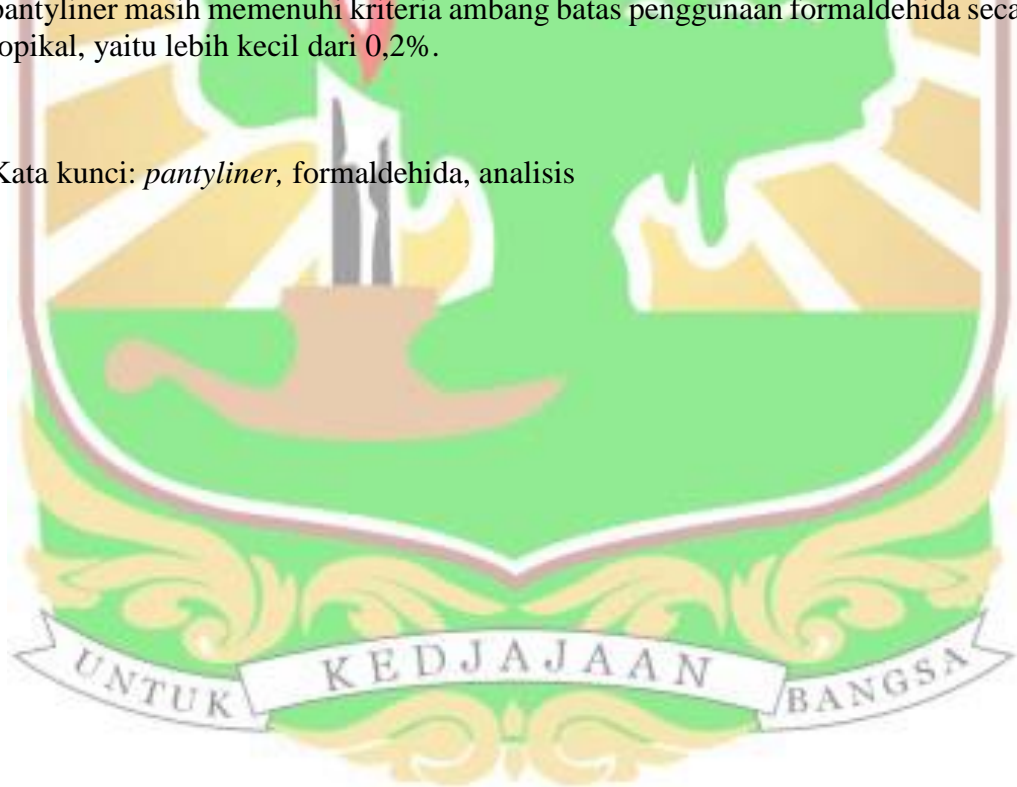


## ABSTRAK

Sebuah metode analisis formaldehida pada sampel *pantyliner* dengan spektrofotometer visibel telah dilakukan dan divalidasi meliputi akurasi, presisi, linearitas, batas deteksi dan batas kuantitasi. Identifikasi formaldehida pada lima buah sampel *pantyliner* bertujuan untuk mengetahui apakah formaldehida terkandung pada masing-masing sampel. Dari uji identifikasi formaldehida didapatkan hasil bahwa tiga dari lima merek *pantyliner* positif mengandung formaldehida. Penelitian dilanjutkan dengan menghitung kadar formaldehida pada sampel yang positif mengandung formaldehida dan diukur pada daerah visibel pada panjang gelombang 409,8 nm. Uji linearitas didapatkan nilai  $r = 0,9994$ ; batas deteksi (BD) 0,207926360 mg/L dan batas kuantitasi (BK) 0,63007988 mg/L. Pada uji presisi diperoleh simpangan baku 0,0419; 0,0898; 0,0582 dengan koefisien variasi berturut-turut 2,0504; 2,3553; 0,9719 %. Akurasi 89,068; 87,615; 80,899 %. Kadar formaldehida tiap pad A, B dan C masing-masing sebesar  $5,406 \times 10^{-6}$ ;  $9,533 \times 10^{-6}$ ;  $9,927 \times 10^{-6}$ %. Dapat disimpulkan bahwa kadar formaldehida pada sampel *pantyliner* masih memenuhi kriteria ambang batas penggunaan formaldehida secara topikal, yaitu lebih kecil dari 0,2%.

Kata kunci: *pantyliner*, formaldehida, analisis



## ABSTRACT

Analysis method of formaldehyde of pantyliner using spectroscopy visible has been done and validated including accuracy, precision, linearity, limit of detection and limit of quantitation. The objective of this research was to determine the concentration of formaldehyde in five samples of pantyliner. The results showed that three of the five pantyliner positive contained formaldehyde. The determination of formaldehyde levels was performed by visible spectrophotometry method at wavelength of 409,8 nm. Linearity of the analytical method showed that  $r = 0,9994$ ; limit of detection (LOD) value was 0,207926360 mg/L and limit of quantitation (LOQ) value was 0,63007988 mg/L. For precision test revealed Standard Deviation (SD) value were 0,0419;0,0898; 0,0582 respectively, with RSD value were 2,0504; 2,3553;0,9719 % respectively. Accuracy value were 89,068; 87,615; 80,899 %. Each pad of pantyliner was found to contain formaldehyde  $5,406 \times 10^{-6}$ ;  $9,533 \times 10^{-6}$ ;  $9,927 \times 10^{-6}$  in sample A, B and C, respectively. It can be concluded that the levels of formaldehyde in the sample pantyliner still at the acceptable range for topical application which was less than 0.2%.

Keyword: pantyliner,formaldehyde, analysis

