

# ANALISIS KADMIUM (Cd) DAN TIMBAL (Pb) PADA SEDIAAN LIPSTIK MURAH DI PASAR KRIAN KABUPATEN SIDOARJO SECARA ICPS

Lolla Putri Pradita, 2018

Farmasi

Pembimbing :

(I) Ririn Sumiyani, (II) Reine Risa Risthanti

## ABSTRAK

Lipstik merupakan produk kosmetik yang sangat digemari wanita. Telah dilakukan penelitian tentang Analisis Kadmium (Cd) dan Timbal (Pb) Pada Sediaan Di Pasar Krian Kabupaten Sidoarjo Secara ICPS. Penelitian ini dilakukan untuk menganalisis kadar kadmium (Cd) dan timbal (Pb) dalam sediaan lipstik dengan kriteria lipstik bentuk stik, berharga murah, berwarna merah, dan tidak mempunyai izin edar apakah memenuhi persyaratan kadar kadmium (Cd) dan timbal (Pb) yang telah ditetapkan oleh BPOM RI yakni tidak melebihi kadar timbal (Pb) < 20 mg/kg atau 20 mg/L (20 ppm) dan kadar kadmium (Cd) < 5 mg/kg atau 5 mg/L (5 ppm). Pada penelitian ini dilakukan validasi metode penetapan kadar timbal dan kadmium pada lipstik secara ICPS. Dari penelitian didapatkan panjang gelombang Pb 220,353 nm dengan nilai  $r = 0,9993$  ;  $V_{xo} = 4,26\%$  ; LOD dan LOQ = 48,32962709 ppb dan 98,74319797 ppb sedangkan panjang gelombang Cd 228,802 nm dengan nilai  $r = 0,9999$  ;  $V_{xo} = 1,48\%$  ; LOD dan LOQ = 8,048237631 ppb dan 23,85004313 ppb. Hasil % recovery Pb dan Cd yaitu 98,27-102,61% dan 103,15-108,42%, sedangkan nilai KV Pb dan Cd sebesar 1,79 % dan 1,72 %. Dari data tersebut dapat disimpulkan bahwa metode analisis kadar Pb dan Cd pada lipstik telah memenuhi persyaratan validasi. Hasil yang didapat dari 8 sampel lipstik tidak mengandung logam Pb dan Cd sehingga melebihi batas aman yang ditetapkan oleh BPOM RI 2014.

**Kata Kunci :** Lipstik, Timbal (Pb), Kadmium (Cd), Validasi Metode, ICPS.

# **ANALYSIS OF CADMIUM (Cd) AND LEAD (Pb) FOR CHEAP LIPSTICK IN PASAR KRIAN KABUPATEN SIDOARJO USING ICPS**

Lolla Putri Pradita, 2018

Pharmacy

Contributor :

(I) Ririn Sumiyani, (II) Reine Risa Risthanti

## **ABSTRACT**

Lipstick is a cosmetic product that is very popular with women. Research on Cadmium (Cd) and Lead (Pb) Analysis on Preparations in Pasar Krian Kabupaten Sidoarjo has been conducted ICPS. This study was conducted to analyze the levels of cadmium (Cd) and lead (Pb) in lipstick preparations with the criteria of stick lipstick, cheap, red, and does not have a marketing permit whether it meets the requirements of cadmium (Cd) and lead (Pb) which have been determined by BPOM RI that does not exceed lead (Pb) <20 mg / kg or 20 mg / L (20 ppm) and cadmium (Cd) levels <5 mg / kg or 5 mg / L (5 ppm). In the study This method validated the determination of lead and cadmium levels on lipstick by ICPS. From the research, the Pb 220,353 nm wavelength with  $r = 0,9993$ ;  $V_{x0} = 4.26\%$ ; LOD and LOQ = 48,32962709 ppb and 98,74319797 ppb while the wavelength Cd 228,802 nm with  $r = 0,9999$ ;  $V_{x0} = 1.48\%$ ; LOD and LOQ = 8.048237631 ppb and 23.85004313 ppb. The results of % recovery of Pb and Cd were 98.27-102.61% and 103.15-108.42%, while the KV Pb and Cd values were 1.79% and 1.72%. From these data it can be concluded that the method of analysis of Pb and Cd levels in lipstick has fulfilled the validation requirements. The results obtained from 8 lipstick samples did not contain Pb and Cd metals so that they exceeded the safe limits set by BPOM RI 2014.

**Keyword :** Lipstick, Timbal (Pb), Cadmium (Cd), Validation Method, ICPS.