ABSTRACT

ANALYSIS LEVEL OF LEAD ON EYELINER WITH ATOMIC ABSORPTION SPECTROPHOTOMETRY (AAS) METHOD

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This study aims to determine the level of lead concentration in eyeliner cosmetics in Surabaya city. Eyeliner is one of the cosmetics that is applied to the eye line, therefore the ingredients contained in it must be safe. Cosmetic eyeliner totaled 6 samples with different trademarks were collected by purposive sampling method. The cosmetic eyeliner samples were digested wet with aqua regia and heavy metal analysis of lead was performed using Atomic Absorption Spectrophotometry (AAS) at a wavelength of 283.3 nm. BPOM of Indonesian Republic decides the limit of heavy metals allowed in cosmetics is 20 mg/kg. All samples in this study were found to contain lead metal exceeding the specified limits. The highest lead levels were found in sample E, which was 180.1188 ppm. The results show that cosmetic eyeliner products are exposed to dangerous heavy metals and may have a risk to the health of users because metals can accumulate in the body.

Keywords: Eyeliner, Lead, Atomic Absorption Spectrophotometry (AAS)