

ABSTRACT

ANALYSIS OF FORMALIN CONTENT IN COSMETIC PRODUCTS SUNSCREEN CREAM AND BODY LOTION CIRCULATING IN THE COMMUNITY USING THE CHROMATROPHIC ACID METHOD

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Formalin is a dangerous preservative that can have a negative impact on human health such as allergic contact dermatitis or even skin cancer if used in high concentrations exceeding the limit set by BPOM for cosmetic preparations, namely a maximum limit of 0.2% (2000 ppm) and products. those that detect formaldehyde with a concentration of more than 0.05% (500 ppm) must include the label "contains formaldehyde" on the product packaging. This research aims to analyze the formaldehyde content in body lotion and sunscreen products circulating in the community to see whether they still meet the requirements set by BPOM.

A total of 76 samples from several cosmetic shops in Rungkut sub-district, Surabaya and which were bought and sold *online* through the *marketplace*, consisting of 39 body lotion products and 37 sunscreen cream products, were subjected to semi-quantitative laboratory tests using chromatropic acid reagent. The research results showed that 20 of the 39 body lotion products were detected as positive for containing the highest concentration of formaldehyde ($10 \text{ ppm} \leq x < 2,000 \text{ ppm}$) and 4 of the 20 positive products were not labeled with formaldehyde or formaldehyde-releasing preservatives. 21 of the 37 sunscreen cream products were detected positively to contain the highest concentration of formalin ($\geq 2000 \text{ ppm}$) and 6 of the 21 positive products were not labeled with formalin or formaldehyde-releasing preservatives.

Keywords: Formaldehyde, Chromatropic Acid, Cosmetics.