

## **ABSTRACT**

### **ANALYSIS OF FORMALDEHYDE CONTENT IN COSMETIC PRODUCTS OF LIQUID SOAP AND HAIR STRAIGHTENING CREAM CIRCULATING IN THE COMMUNITY USING CHROMATROPIC ACID REAGENT**

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Liquid bath soap is a liquid preparation intended for cleansing the skin. Meanwhile, hair straightening cream is a type of cosmetic that is used to achieve a straighter and smoother hair appearance and reduce or eliminate wrinkles, curls or natural waves in the hair. Both products belong to the rinse-off product category of cosmetics. Based on the Food and Drug Administration Regulation Number 17 of 2022, there are ingredients used in cosmetics with restrictions and requirements on the use of these ingredients, one of which is formaldehyde.

Formaldehyde content analysis has been carried out on liquid soap and hair straightening cream circulating in the community. The purpose of this study aims to determine whether liquid soap and hair straightening cream circulating in the community contain formalin with the limit requirements of the Food and Drug Administration Regulation Number 17 of 2022 which is 0.2% (2000ppm) and if the level is  $>0.05\%$ , you must include the label in the package.. The research time was conducted from February 2024 to March 2024. Samples taken were 54 liquid bath soaps and 10 hair straightening creams tested using reagent.

The results of research conducted at the Pharmaceutical Chemistry Laboratory of the Surabaya Academy of Pharmacy, Jalan Ketintang Madya No.81 Surabaya showed that in 54 samples of liquid soap and 10 hair straightening creams studied there were 22 samples of liquid soap and 7 samples of straightening cream that were positive for formaldehyde. The content of formaldehyde is in accordance with BPOM regulations which are permitted.

**Keywords:** Formaldehyde, Liquid bath soap, hair straightening cream, chromatropic acid