IDENTIFICATION OF METANIL YELLOW IN RAW MULTICOLORED ROSE CRACKERS SOLD AT PAGOTAN MARKET, MADIUN REGENCY USING THIN LAYER CHROMATOGRAPHY METHOD

Salsabila, Widwiastuti*
Department of Pharmaceutical and Food Analysis, Poltekkes Kemenkes Malang
**Email: salsabilaaa1308@gmail.com*

ABSTRACT

Background: *Metanil yellow is a synthetic dye banned in food based on BPOM Regulation No. 22 of 2023 due to its toxic and carcinogenic nature. Despite the prohibition, it is still illegally used by irresponsible food producers because of its vibrant color and low cost. One potentially contaminated product is raw multicolored rose crackers, commonly sold in traditional markets.* ***Objective:*** *This study aimed to qualitatively identify the presence of metanil yellow in raw multicolored rose crackers sold at Pagotan Market, Madiun Regency.* ***Methods:*** *Yellow cracker samples were collected from four different vendors. The dye was extracted using pretreated wool yarn and analyzed using Thin Layer Chromatography (TLC) on silica gel 60 F254 plates with a mobile phase of n-butanol:acetic acid:water (4:5:1). The elution plates were observed under UV light at 254 nm.* ***Results:*** *A bright yellow spot with an Rf value of 0.9875 appeared only on the standard solution. No similar spot was detected in any of the cracker samples, either visually or under UV light.* ***Conclusion:*** *The tested raw rose crackers from Pagotan Market were confirmed negative for metanil yellow, indicating that these products are relatively safe from synthetic dye contamination and meet food safety expectations based on the TLC method.*

Keywords: *Metanil yellow, Rose crackers, TLC, Synthetic dye, Qualitative test*