

ABSTRACT

ANALYSIS OF RHODAMINE B CONTENT IN CHILI SAUCE OF MEATBALL SELLER OUTSIDE SCHOOL CANTEEN USING THIN LAYER CHROMATOGRAPHY (TLC) METHOD

Titin Pramesti

The production of chili sauce has increased along with the use of food additives (BTM). Rhodamine B is one of the food additives that is frequently used as a colorant, despite being prohibited in food due to its toxic nature. This study aims to analyze the content of Rhodamine B in chili sauce samples from meatball sellers outside SD "X" in East Surabaya using the Thin Layer Chromatography (TLC) method. This study employed a descriptive analysis method using TLC to determine the Rhodamine B content in the chili sauce samples. The research was conducted at the Surabaya Pharmacy Academy Laboratory during January-February 2023. The samples used were chili sauce from meatball sellers in the East Surabaya area. The analysis process involved applying the standard reference solution and the chili sauce sample on the TLC plate. After elution, the plate was dried, and the resulting color spots were observed under ultraviolet light. The Rf value of each spot was compared to the standard Rf value of Rhodamine B. The results showed a bright orange standard stain on the TLC plate with a distance of 5.9 cm, while the eluent distance was 7.9 cm. The resulting Rf value was 0.7. However, there were no visible stains in the analyzed chili sauce sample, indicating the absence of Rhodamine B. This study provides evidence that chili sauce samples from meatball sellers outside SD "X" canteen in East Surabaya do not contain Rhodamine B. These results emphasize the importance of monitoring and enforcing regulations regarding the use of food additives in chili sauce to ensure the quality and safety of the food consumed by the public.

Keywords: Chili Sauce, Meatball, Rhodamine B, Thin Layer Chromatography (TLC)