

THE 4TH MULAWARMAN INTERNATIONAL CONFERENCE ON TROPICAL PUBLIC HEALTH (MICTOPH) 2025



ABSTRACT

Title of Abstract : ANALYSIS OF HAZARDOUS SUBSTANCE CONTENT IN

ELEMENTARY SCHOOL SNACKS: CASE STUDY AT SDN 009

KOTA SAMARINDA

Authors of Abstract : Miftahul Husna, Iriyani Kamaruddin, Ratih Wirapuspita Wisnuwardani

Affiliation : Others

Correspondence E-mail : miftahusna1999@gmail.com

Background: Schoolchildren's snacks have the potential to contain hazardous food additives such as formalin, borax, rhodamine B, and methanil yellow, which are prohibited in food products. Prolonged exposure to these substances can pose serious health risks to children.

Objective: This study aimed to assess the presence of hazardous chemical substances in school snacks sold at SDN 009 Karang Asam, Samarinda City, and to evaluate hygiene and food handling practices by school food vendors

Research Methods/ Implementation Methods: A descriptive survey design was employed using direct observation and rapid testing methods. Three popular snack items—iced tea, jelly, and colored mini pancakes (terang bulan)—were tested using rapid test kits for the presence of formalin, borax, rhodamine B, and methanil yellow.

Results: All samples tested negative for the four hazardous substances. However, several hygienerelated deficiencies were observed, including the unclear source of water and ice used in preparation and the lack of personal protective equipment (PPE) such as gloves and masks among vendors.

Conclusion/Lesson Learned: While the tested school snacks did not contain prohibited food additives, the hygiene and sanitation practices of the vendors were suboptimal. Regular education and supervision are essential to ensure comprehensive food safety for schoolchildren

Keyword: School snacks, food additives, formalin, borax, rhodamine B, food safety