ANALYSIS OF COLIFORM BACTERIA IN REFILLED DRINKING WATER IN SUMBERSARI VILLAGE, MALANG CITY USING THE MPN (Most Probable Number) METHOD

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ABSTRACT

Background: *Water is a basic need and is very necessary for humans. Refilled drinking water is one solution to meet the community's drinking water needs because it is cheap and practical. People can buy it in a refilled drinking water depot called DAMIU. However, refilled drinking water can be contaminated with pathogenic bacteria such as coliform, which a less hygienic processing process can cause. Therefore, an analysis of coliform bacteria contamination was carried out using the Most Probable Number (MPN) method, and the results obtained must meet PERMENKES 492 / MENKES / IV / 2010 concerning the quality of drinking water with total coliform bacteria is 0/100 ml.* ***Objective:*** *This study aims to determine the quality of refilled drinking water sold at DAMIU in Sumbersari Village, Malang City, using the MPN method based on SNI 19-2897-92 on microbial contamination test methods in 1992.* ***Method:*** *This study used the MPN method with two tests, the presumptive test, and the confirmatory test, on three samples (codes A, B, C) with two replications.* ***Results:*** *Based on the research that has been done, the MPN value of samples A1 and A2 was 0 MPN/ml, samples B1 and B2 0 MPN/ml, sample C1 4 MPN/ml and sample C2 3 MPN/ml.* ***Conclusion:*** *From the study results, it can be concluded that out of 3 samples, there is one sample, sample C, which is positive for coliform and does not meet the PERMENKES 492 / MENKES / IV / 2010 requirements.*

Keywords: *Refilled Drinking Water, MPN, Coliform*