

TITLE: MICROBIOLOGICAL ANALYSIS AND LABELING OF MINERAL WATER MARKETED IN MACEIÓ, ALAGOAS

AUTHORS: COSTA, M.J.B.S.; BARROS, Y.V.R.; ALMEIDA, D.M.M.S.; AGRA, T.R.V.; MELO, D.S.

INSTITUTION: CENTRO UNIVERSITÁRIO CESMAC, MACEIÓ, AL. (R. Cônego Machado, 984 - Farol, CEP 57051-160, MACEIÓ, AL)

ABSTRACT:

Mineral water is all that obtained directly from natural sources or groundwater and containing certain minerals from these fluctuations. Consumers mostly chose mineral water to consider more purer, cleaner, residue-free and consequently healthier, since untreated water is an important vehicle for spreading diseases. Bottled water is among the three most consumed beverages in the world, and its consumption is increasing, even in countries where the quality of the water supply is considered to be of excellence. Thus, to evaluate the microbiological quality of mineral water, the following bacteria should be investigated: total coliforms and at 45°C, Pseudomonas aeruginosa, Enterococcus sp. and clostridium sulphites. Escherichia coli is included in both the total coliform and thermotolerant coliform groups and is an indicator of fecal contamination. Thus, it is essential to evaluate the quality of this product so that there is no presence of chemical, physical and biological contaminants that alter its composition and / or may cause possible damages to the health of consumers. In addition, it's important to verify the suitability of the marketed mineral water labels in relation to the current legislation. This work accomplished an experimental analytical study, with label analysis of fourteen commercial brands of mineral water sold in Maceió city, Alagoas. The evaluation of the labeling was made based on the legislation in force in this country. To investigate the microbiological quality, the contamination by total coliforms and at 45°C by the multiple tubes technique, the research of heterotrophic bacteria using the "Pour Plate" method on standard agar for counting and the research of Escherichia coli on EMB agar were analyzed. Concerning the analysis of the labels of the mineral water trademarks, it was observed that only one sample showed lack of compliance according to the legislation in force in this country, related items the informations of chemical composition of the water, the size and visibility of the letters and numbers on label. For microbiological analysis, 30 samples of mineral water were evaluated. Among these samples, only 4 of them (13.3%) were unfit for consumption because it contain an amount above the acceptable limit of coliforms.

Keywords: Mineral water. Labeling. Microbiological quality.

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