

TITLE: EFFICACY OF SANITIZERS USED IN EQUIPMENT AND UTENSILS IN A SUPERMARKET OF RECIFE-PE

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ABSTRACT:

Deficiencies in the sanitization of equipment and utensils used in establishments that handle food may favor cross contamination and compromise the safety of the product. In addition, some microorganisms are capable of producing biofilms, becoming resistant to antimicrobial agents and representing a source of contamination and a health risk to consumers. Thus, we aimed to evaluate the efficacy of sanitizers used in equipment and utensils in the fishery area in a supermarket in Recife-PE. Twelve surface swabs of equipment and utensils were collected prior to sanitizing, using chlorine based products and quaternary ammonia. The swabs were deposited in previously sterilized test tubes with a screw cap, containing 4 mL of 0.9% saline solution, identified and transported in isothermal boxes containing recyclable ice to the Laboratory of Inspection of Meat and Milk of the Federal Rural University of Pernambuco. The efficiency of 4% chlorine and 5% quaternary ammonia in 30", 60" and 300" intervals were analyzed, and dilutions were performed according to the manufacturer. Growth of Gram positive colonies was observed in 50% of samples (6/12) and Gram negative colonies in the other 50%. When confronted with chlorine, it was observed that the Gram positive and Gram negative colonies had been sensitive in the three evaluated times. That is, in all samples (100%) the microorganisms were inactivated by the sanitizing action. As for quaternary ammonia, all colonies were resistant. That is, in 100% of the samples the microorganisms were not inactivated by the action of this sanitizer. When confronted with chlorine, it was observed that the Gram positive and Gram negative colonies had been sensitive in the three evaluated times. That is, in all samples (100%) the microorganisms were inactivated by the sanitizing action. It was verified that the chlorine was effective in the three times evaluated before the confronted microorganisms. However, the quaternary ammonia didn't prove effective in the three times before the microorganisms. Therefore, the use of quaternary ammonia in the establishment where the samples were collected isn't an option that guarantees the innocuity of the processed food. The importance of evaluating the efficacy of sanitizers used in sanitation routine in places that handle food is perceived, since this monitoring can help in choosing products that are more appropriate to the needs of the place.

Keywords: Chlorine; Cross-contamination; Quaternary ammonia; Sanitization.