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Evaluation of disinfectants for use in the pharmaceutical environments

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Disinfectants are used in pharmaceutical companies to guarantee the reduction or elimination of microorganisms that may be present in production lines, equipment, personnel or the environment. Although the manufacturer guarantees their effectiveness, it is necessary to test them in the pharmaceutical environment where they are to be used.

Three disinfectants were evaluated, NDP-Surfaplus in 70% concentration, NDP-Surfaclin in 2% and 0.5% concentration and Tristel Jet gel activated at 0.12% concentration. Swabs were performed before and after the application of the disinfectant to sections of wall surfaces, floors, marble plateaus and stainless steel sinks. From each surface the sections that were most difficult to carry out the cleaning and disinfection processes were chosen. The counting method used was the poured plate method. The disinfectants were shown to meet the stipulated acceptance criteria with a 90% reduction in the initial microbial population, except for the 0.5% concentration of the NDP-Surfaclin disinfectant. A greater number of microorganisms were isolated on surfaces that had a tendency to form pores due to erosion from cleaning and disinfection processes, and it was also shown that disinfectants had a better activity on stainless steel surfaces. The effectiveness of disinfectants in the pharmaceutical environment of the formulation line was demonstrated, approving their use for cleaning and disinfection processes. The best-performing disinfectant was NDP-Surfaplus at the 70% concentration.

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