The fungicidal efficacy of various commercial disinfectants used in the food industry

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Abstract

The antifungal effects of eight commercial disinfectants namely alcohol, peracetic acid, iodophors, aldehydes, quaternary amine compounds (QAC, a, b and c), and a chlorine-based agent were assessed at different concentrations. The time taken for these disinfectants to kill different microorganisms was used to assess their efficacy. The microorganisms tested were six yeasts,*Saccharomyces cerevisiae, Saccharomyces uvarum, Kloeckera apiculata, Candida oleophila, Metschnikowia fructicola, Schizosaccharomyces pombe*, and two moulds,*Aspergillus niger* (5 strains) and*Penicillium roqueforti* (5 strains). The disinfectants QAC (a) and QAC (c) were the most effective against all the microorganisms tested. The chlorine-based disinfectant worked most efficiently against the moulds at all concentrations used (0.5, 1.0, 1.5 and 2.0%). Peracetic acid and alcohol based disinfectants were most effective against the yeasts than mould. Tested yeasts were more resistant to the aldehyde and iodophors base disinfectants than the others.

Key words

yeast mould food industry disinfectant efficacy

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