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Virucidal, Bactericidal and Fungicidal Efficiency of Dry Microfine Steam on Innate Surfaces

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Abstract : Microorganisms (viruses, bacteria, fungi) are responsible for most communicable diseases, threatening human health. For domestic use, chemical agents are often criticized because of their potential dangerousness, and natural solutions are needed. Application of the “dry microfine steam” (DMS) technology was tested on a selection of common pathogens (SARS-CoV-2, enterovirus EV-71, human coronavirus 229E, E. coli, S. aureus, C. albicans), on different innate surfaces, for 5 to 10 seconds. Quantification of the remaining pathogens was performed, and the reduction rates ranged from 99.8% (S. aureus on plastic) to over 99.999%. DMS showed high efficacy in the elimination of common microorganisms and could be seen as a natural alternative to chemical agents to improve domestic hygiene.

Keywords : steam, SARS-CoV-2, bactericidal, virucidal, fungicidal, sterilization
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