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Abstract: Effectiveness of Using Different Liquid Misting Applicators to Kill Bacteria

Bacteria, the primary agents of infection in humans, are present on nearly all surfaces. To mitigate the spread of bacteria and infections, disinfectants are commonly used. This study explored the effectiveness of common disinfectants and different methods of disinfection, primarily focusing on the use of spray pumps and a transducer as a mechanism to disinfect surfaces using 70% IPA (Isopropyl Alcohol) or ethanol (often referred to by the brand name Lysol). Tests were conducted on bacterial lawns before incubation. The effectiveness of the tests was determined by observing bacterial growth over the next 24 hours after disinfection. Testing proved that both ethanol and 70% IPA are effective in stopping bacterial growth. While both the transducer and spray pump methods showed success, the transducer/ethanol combination was particularly efficient, using the least amount of disinfectant.