

Formulation and Evaluation of Hand Sanitizer

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Abstract: *Hand hygiene plays a critical role in preventing the spread of infectious diseases. Hand sanitizers have become a popular choice for convenient and effective hand hygiene practices. This study aims to formulate and evaluate a hand sanitizer using readily available ingredients.*

The formulation includes alcohol as the active ingredient, along with moisturizers and emollients to counteract potential drying effects on the skin. Various concentrations of alcohol are tested to determine the optimal balance between antimicrobial efficacy and skin tolerance. Additionally, different thickening agents are explored to achieve the desired consistency and texture.

The evaluation process involves testing the formulated hand sanitizer for its antimicrobial activity against common pathogens, such as bacteria and viruses. The efficacy is assessed using standard microbiological methods, including agar diffusion assays and time-kill kinetics studies. Moreover, sensory evaluations are conducted to assess factors such as odor, texture, and skin feel.

The results of this study provide valuable insights into the formulation and performance of hand sanitizers, contributing to the development of products that effectively promote hand hygiene while ensuring user comfort and satisfaction..

Keywords: Hand Hygiene, Antimicrobial, Microorganisms

