

Formulation of Stick Deodorant Using Dr Azri's Perfume As Fragrance

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Structured Abstract

Background: Body odor resulted from bacterial breakdown of sweat and cause social discomfort. Even though many deodorants exist, the products in the market often fail to offer a good fragrances or balance user satisfaction with efficacy and safety. Based on the problem, this study aimed to formulate a stick deodorant by integrating Dr. Azri's Perfume while using natural ingredients as well as evaluating its physical and chemical properties. This product was aimed to meet the consumer demand for effective, safe and uniquely scented personal care products.

Methods: Four (4) deodorant formulations were developed by differing the ratios of beeswax, coconut oil and hydrogenated castor oil. The ingredients included natural and functional components such as shea butter, cetearyl alcohol, zinc oxide, glycerin, menthol, vitamin E and the signature perfume. Each formulation was tested under physical testing such as color, texture, spreadability, stickiness and staining as well as chemical testing such as softening point, disintegration time, pH and stability at 4°C and 25°C. The best-performing formulation which is formulation 4 (F4) was selected for a one-month user validation involving 10 volunteers.

Results: F4 showed the best overall performance including the highest softening point (63°C) and longest disintegration time (121 minutes) indicate excellent heat and moisture resistance. The pH value of 6.80 confirmed its compatibility with armpit skin. Physically, F4 had low stickiness, acceptable spread ability and did not stain fabrics. After two weeks of storage at 4°C and 25°C, it remained stable with no sweating, melting, or color change. In the user validation phase, 90% of users reported no negative effects. F4 scored highly in fragrance appeal, odor protection and comfort, although suggestions were made to improve longevity and sweat control.

Conclusion: The study successfully developed a stable and natural stick deodorant incorporating Dr. Azri's Perfume. F4 met all performance and safety benchmarks, showing strong potential for commercialization. While the product proves its effectiveness, further improvements such as sweat-blocking agents or varied fragrance options could expand consumer appeal and functionality.

Keywords: Stick deodorant, natural ingredients, body odor, fragrance formulation, product stability

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