

## Unilever Home Care Assistant Formulation Manager MET Research / Development: Product Development

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### **Abstract:**

In this study, the use of safer preservatives as alternatives to isothiazolinones, known as preservatives, was examined. Preservatives are used in liquid detergents to prevent microbial contamination, enhance product stability, and extend shelf life, thereby providing safer products to consumers. Isothiazolinones and their derivatives (BIT, MIT, CIT/MIT, and OIT), which are among the commonly used effective preservatives, are criticized for causing serious skin sensitivity that can result in Allergic Contact Dermatitis (ACD), as well as for environmental toxicity and biodegradability issues. This research addressed the harmful effects of isothiazolinones in a cream cleaner format for household cleaning products, exploring alternative natural and synthetic preservative options, as well as preservative-free product formulations. As a result of the study, data on the efficacy, performance, and safety of the preservative-free formulation were analyzed, and the self-preserving formulation in cream format was commercialized based on the outcomes.