

**P-97****Potential of *Syzygium Malaccense* as Antimicrobial Preservative Agent for Topical Application Products**

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Antimicrobial preservatives are substances that are added into formulation or product to prevent microbial spoilage and thus, prolong the product shelf-life. Our preliminary study indicated ethanolic extract of *Syzygium malaccense* leaf (SmL) exhibited antimicrobial activity via the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) test. SmL was then incorporated into a formulated topical application product before being subjected to a preservative efficacy test. Microbial preservative efficacy of SmL at 0.25% (w/v) and 0.5% (w/v) were evaluated against *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Escherichia coli*, and *Candida albicans* for the duration of 28 days. Euxyl-K300 (0.5%, w/v), a synthetic chemical preservative was used as positive control in the study. The preservative efficacy study showed that both the 0.25% (w/v) and 0.5 % (w/v) of SmL exhibited inhibitory activity against *S. aureus* on the 7 day and against *C. albicans* on the 21 day. The SmL has the potential to be developed as antimicrobial preservative agent in the topical application products.

**Keywords:** *Syzygium malaccense*, preservative efficacy, topical application.

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