Antimicrobial preservation efficacy of glucose and maltitol syrups with and without 0.1% sorbic acid

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1 Introduction
Among paediatric dosage forms, syrups have advantages:
✓ ease of administration;
✓ good acceptability (taste);
✓ self-preservation properties.

The objective of our work is to test the effectiveness of antimicrobial preservation of maltitol and glucose syrups with or without preservatives (sorbic acid).

2 Materials and methods
The preservation efficacy test (PhEur. 01/2011:50103)
✓ Maltitol syrup (Lycasin® 80/55, Roquete, France)
✓ Glucose syrup (Roquete, France)
With or without 0.1% sorbic acid (Inresa, France)
Inoculation with standard strains (Bioballs®, BioMerieux SA, France)

3 Results
Validation of initial inoculums (10^6 UFC/mL) no cross contamination detected

4 Discussion
Addition of 0.1% sorbic acid allows the maltitol and glucose syrup to pass the test
✓ In the literature simple syrup also requires the addition of a preservative (methylparabens + propylparabens) to pass the test on Aspergillus brasiliensis (Santoveña-Estévez A et al. 2018)
✓ Sorbic acid has a better safety profile than propylparaben (EMA, 2015)

Syrups + 0.1% sorbic acid = simple answer (taste / preservation) to (re)discover