

UNIVERSITI TEKNOLOGI MARA

**STUDY ON STABILITY OF PARACETAMOL
SUSPENSION WITH VARIOUS THICKENING
AGENTS**

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ABSTRACT

Manufacturing a stable pharmaceutical product such as suspension is important so that the product would be able to exert its therapeutic advantages upon its use. Therefore, stability study is crucial in determining the stability of certain product. Suspension usually subjected to instability such as sedimentation. The sedimentation usually depends on several factors such as particle size of drug, viscosity of the dispersion medium and the storage temperature which had been studied in this research. To determine the stability of the suspension, several tests had been conducted such as particle size determination, polydispersibility index, zeta potential, viscosity, sedimentation rate and redispersability rate test. From these tests, it had been found that the larger particle size of the drug and low viscosity of dispersion medium would produce unstable suspension. Besides, the higher temperature of storage would also cause instability of the suspension. The unstable suspension would have higher sedimentation rate which was hard to be redispersed as hard 'cake' had formed.

Keywords: Suspension, Stability of the suspension, Sedimentation