

**STUDI KOMPARATIF KONSENTRASI PENGIKAT
HPMC 2%, 3%, DAN 5% TERHADAP KARAKTERISTIK
FISIK TABLET KITOSAN METODE GRANULASI BASAH**

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ABSTRAK

Telah dilakukan penelitian untuk menyelidiki pengaruh konsentrasi HPMC sebagai pengikat terhadap karakteristik fisik tablet pada pembuatan tablet kitosan menggunakan metode granulasi basah. Konsentrasi bahan pengikat yang ditambahkan adalah 2%, 3% dan 5%. Evaluasi terhadap karakteristik fisik tablet dilakukan pada Formula 1, Formula 2, dan Formula 3 meliputi keseragaman bobot, keseragaman ukuran, kekerasan, friabilitas, dan waktu hancur tablet memenuhi spesifikasi. Data hasil pemeriksaan karakteristik fisik tablet kemudian diolah secara statistik dengan metode *One-way ANOVA* dengan taraf signifikan 5% pada Formula 1, 2, dan 3. Dari analisis secara statistik diperoleh hasil bahwa berdasarkan pemeriksaan karakteristik tablet keseragaman bobot, keseragaman ukuran, dan waktu hancur terdapat perbedaan yang signifikan antara Formula 1, 2, dan 3. Sedangkan untuk friabilitas dan kekerasan tablet tidak menunjukkan perbedaan yang signifikan.

Kata Kunci : HPMC, kitosan, tablet, pengikat, granulasi basah

COMPARATIVE STUDY OF CONCENTRATION OF HPMC AS BINDER IN 2%, 3%, AND 5% ON THE PHYSICAL CHARACTERISTICS OF CHITOSAN TABLETS USING WET GRANULATION METHOD

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ABSTRACT

A Research was conducted to analyze the influence of concentration of HPMC as a binder against the physical characteristics of chitosan tablets in the manufacture of tablets using wet granulation method. Concentration of binder added is 2%, 3% and 5%. There were three formulas to be evaluated: Formula 1, Formula 2, and Formula 3. The evaluation of the physical characteristics of tablets was based on the uniformity of weight, uniformity of size, hardness, friability, and disintegration time. The result of evaluation from Formula 1, 2, and 3 was conformed with qualifies of characteristics tablet. The results of the physical characteristics of tablets were analyzed statistically by *One-way ANOVA* with a significant level of 5%. The statistical analyzed showed that uniformity of size, uniformity of weight, and disintegration time, there were significant differences between Formula 1, 2, and 3 whereas, friability and hardness showed no significant difference.

Key words : *HPMC, chitosan, tablet, binder, wet granulation*

