

ABSTRACT

FORMULATION AND EVALUATION CO-PROCESSED EXCIPIENT BY CORN STARCH 8% AND 10% AS DISINTEGRANT (Prepared by Wet Granulation Method)

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Co-processed excipient is combining two or more existing additives, where the combinations of these materials complement each other, in order to obtain new additives with better properties. This study aims to determine the effect of different concentrations of corn starch 8% and 10% on the characteristics of the co-processed excipient as a disintegrant with lactose as a filler and PVP K-30 as a binder. The method used is the wet granulation method because it can increase the cohesiveness and compactibility of the powder with the addition of a binder that will coat the powder particles so that the powder particles stick together and can form granules. The resulting granules are then evaluated for their physical quality which includes flow rate, angle of repose, real specific gravity, compressible density, compressibility index, hausner ratio, moisture content test and particle size distribution. Then the results of the evaluation were tested statistically using the SPSS Independent T-test. It can be concluded that the co-processed excipient formulation with a comparison of corn starch 8% and 10% is able to produce granules that meet the requirements of the flow velocity test, angle of repose, compressibility index, Hausner ratio, moisture content test and particle size distribution. Meanwhile, from the statistical test results, there is no significant difference between the concentration of corn starch 8% and 10% as a disintegrant to the characteristics of the co-processed excipient, except for the compressibility index parameter. So that in future research, it can be done with different concentrations of corn starch to see its effect on co-processed excipients.

Keywords : granules, co-processed excipient, corn starch, wet granulation