

ABSTRACT

FORMULATION AND EVALUATION OF CO-PROCESSED EXCIPIENT WITH AVICEL PH 102 10% AND 15% AS DISINTEGRANT (Prepared with Wet Granulation Method)

Sinda Alfreeda

One method of making tablets is direct compression. The direct compression method requires excipients that have good flow properties and compressibility so that they can be overcome by the use of co-processed excipient. Co-processed excipient is a combination of two or more types of excipients which aims to modify physical properties such as flow properties and compressibility. This study aims to determine the effect of differences concentration of Avicel PH 102 10% and 15% as a disintegrant on the characteristics of co-processed excipient. The method used is wet granulation method which has the advantage of increasing physical properties such as flowability, compressibility, and preventing segregation of the powder mixture. Co-processed excipient were evaluated for their physical characteristics which included flow rate, angle of repose, bulk density, tapped density, compressibility index, Hausner ratio, moisture content test and distribution of particle size. Then the results of the evaluation were tested statistically using the SPSS Independent T-test. The results showed that the evaluation of the co-processed excipient with differences concentration of Avicel PH 102 10% and 15% as a disintegrant had met the test requirements of flow rate, angle of repose, compressibility index, Hausner ratio, moisture content, and distribution of particle size. Meanwhile, the statistical test results showed a significant difference between the concentrations of Avicel PH 102 10% and 15% as a disintegrant on the characteristics of the co-processed excipient, except for the moisture content parameter. Then for further research can be carried out using different concentrations of Avicel PH 102 is 5% and 7% to see its effect on co-processed excipient.

Keywords : Co-processed excipient, Wet granulation, Avicel PH 102