Formula and Compression Forces Optimization on the Characteristic of Effervescent Tablet of Passion Fruits

Ansar ., Budi Rahardjo, Zuheid Noor, Suyitno .

Abstract

The aims of this research were to determine the influences of formula and compression forces on characteristic of effervescent tablet of fruits cereal. Variation of six formulas and five types of compression forces were studied in this research . Variations of the formula were carried on by combining different ratio of citric acid and sodium bicarbonate (1:3, 1:2, 1:1, 3:1, 2:1, and 2:3 w/w) and compression force of 1000, 2000, 3000, 4000, and 5000 N were applied. Characteristic of effervescent tablet of passion fruits evaluated were texture and dissolution rate. The results of research showed that the compression forces significantly influenced (? > 0.05) on the texture and dissolution rate of effervescent tablet. Variations of formula did not significantly influence (? < 0.05) the texture and dissolution rate. The effervescent tablet of passion fruits of good characteristic was produced by citric acid and sodium bicarbonate ratio of 1:2 w/w with compression force of 3000 N.

Key words: formula, compression force, effervescent tablet