ABSTRACT

FORMULATION OF EFFERVESCENT GRANULE SUSPENSION CHITOSAN MANGROVE CRAB (Scylla serrata) SHELL WITH VARYING GELATIN CONCENTRATIONS

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Mangrove crabs (Scylla serrata) have chitosan. Chitosan is processed through three stages, namely demineralization, deproteination, and deacetylation. The results of chitosan evaluation with the FT-IR (78,16%±0,33), % yield (70%), organoleptic (powder shape and light brown color), ninhydrin (purple), water content (4,67%±2.49), and ash content (0,2%±0.07). Chitosan is a compound that has anticholesterol activity; therefore, effervescent granule suspension is made because it can be given to people who have difficulty swallowing tablets or capsules. This study is to formulate an effervescent granule suspension of chitosan with variations in the concentration of gelatin as a binder. The method of making effervescent granules was carried out by wet granulation separately. Effervescent granule suspension is formulated with gelatin concentrations of 3% and 9%. The granules obtained were carried out an organoleptic evaluation before reconstitution, water content F1 (2,94% ± 4,43); F2 (0,06% ± 0,004), flow time F1 (21,46 g/second ± 1,21); F2 (29,88 g/second ± 5,04), angle of repose F1 (32,55°±3,05); F2 (20,23°±4,04), %fines F1 (1,88% ± 0,55) ; F2 (14,92% ± 4,332), dispersion time F1 (5:08 minutes ± 0,02); F2 (3:46 minutes ± 0,627), foam height F1 (3,4 cm ± 0,7); F2 (1,7 cm ± 0,5), pH test F1 (5,65±0,14); F2 (3,04±0,37), viscosity F1 (2,655 mPa.s ± 0,118); F2 (2,329 mPa.s ± 0,291), organoleptic evaluation after reconstitution, and hedonic. The hedonic test was carried out on 20 respondents. Based on these results, the best formula for effervescent granules suspension is F1 with 3% gelatin.

Keywords: *effervescent, granule, suspension, chitosan, gelatin.*