Pengaruh Pewarna Alami Ekstrak Kulit Buah Manggis (Garcinia Mangostana Linn.) dan Minyak Essensial pada Formula tanpa Air Terhadap Kestabilan Bath Bomb = Effect of Natural Coloring Agent Mangosteen Peel (Garcinia Mangostana Linn.) Extract and Essential Oil in Waterless Formula on Bath Bomb Stability

Cindy Aswara, author

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh pewarna alami dari ekstrak kulit buah manggis (Garcinia Mangostana linn.) dan minyak essensial pada formula tanpa penambahan air terhadap kestabilan bath bomb. Ekstraksi menggunakan metode maserasi dengan pelarut etanol 96%. Variasi rasio serbuk kulit buah manggis dan pelarut yaitu 1:6, 1:7,5, dan 1:9 (g bahan/mL pelarut) serta jenis minyak essensial yang digunakan dalam formula bath bomb diteliti. Penelitian ini membuat 6 sampel bath bomb yaitu menggunakan jasmine oil berupa sampel A (pewarna buatan), sampel B (variasi pewarna 1:7,5), sampel C (variasi pewarna 1:6), dan sampel D (variasi pewarna 1:9) serta sampel E (variasi pewarna 1:7,5 & lavender oil), dan sampel F (variasi pewarna 1:7,5 & peppermint oil). Karakterisasi bath bomb meliputi uji pH, tinggi busa, kestabilan busa, ketahanan pada suhu ruang, dan antibakteri. Karakterisasi pewarna alami dan sampel bath bomb menggunakan FTIR (Fourier Transform Infra-Red) dan GC-MS (Gas Chromatography-Mass Spectrometry). Berdasarkan hasil penelitian, bath bomb dengan warna yang optimal adalah sampel C. Semua sampel bath bomb memiliki pH asam yaitu antara 6,17 – 6,38. Berdasarkan tinggi dan kestabilan busa, bath bomb yang paling optimal adalah sampel F dengan tinggi busa 195 mL dan kestabilan busa selama 03 menit 20 detik. Sedangkan berdasarkan kehilangan massa yang paling kecil adalah sampel B sebesar 5,37 %.

.....This study aims to determine the effect of natural dyes from mangosteen rind extract (Garcinia Mangostana Linn.) and essential oils in a formula without the addition of water on the stability of the bath bomb. Extraction using maceration method with 96% ethanol solvent. The variations in the ratio between mangosteen rind powder and solvent, there are 1:6, 1:7.5, and 1:9 (g material/mL solvent) and the type of essential oil used in the bath bomb formula was investigated. This study made 6 samples of bath bombs using jasmine oil in the form of sample A (artificial coloring), sample B (dye variation 1:7.5), sample C (dye variation 1:6), and sample D (dye variation 1:9) and sample E (dye variation 1:7.5 & lavender oil), and sample F (dye variation 1:7.5 & peppermint oil). Characterization of the bath bomb include testing of pH, foam height, foam stability, resistance at room temperature, and antibacterial. Characterization of natural dyes and bath bomb by using FTIR (Fourier Transform Infra-Red) and GC-MS (Gas Chromatography-Mass Spectrometry). Based on the research results, the bath bomb with the optimal color is sample C. All bath bomb samples have an acidic pH between 6.17 – 6.38. Based on foam height and stability, the most optimal bath bomb was sample F with a foam height of 195 mL and foam stability for 03 minutes 20 seconds. Meanwhile, based on the smallest mass loss, sample B was 5.37%.