

Abstract

Living together closely with pets, people put an increased value on the appearance of their pets, specifically putting more attention towards the hair and skin of the pets. Thus, the majority of cosmetics for dogs are shampoos. These may be utilized to wash the coat, enhance its structural properties, and as adjuvant treatment for various skin diseases. In order to treat various skin diseases present in dog hair and skin, the use of specially formulated shampoo specifically designed for sensitive skin should be considered. Hence, the formulation of non-irritant and sulphate-free organic shampoo specifically used for dogs was performed. In order to test the formulation, several methods of stability testing which include several evaluations of non-irritant and sulphate-free dog shampoo were performed and assessed. These methods of stability testing consist of cycling stability, centrifugation stability, and thermal stability, while several evaluations of the formulation after cycling stability and thermal stability consist of organoleptic testing, pH testing, viscosity testing, solubility, and spreadability. According to the results obtained, each of the formulated shampoos has its own limitations. F3 is expected to be the best formulation since the pH of the formulated shampoo in cycling stability is in accordance with the criteria, while the pH obtained from thermal stability is in accordance with the criteria, specifically at room temperature at $30 \pm 2^\circ\text{C}$ and oven at 40°C . Furthermore, there is no significant difference between all of the formulated shampoos according to other evaluations.

Keywords: *Stability testing, evaluations, dog shampoo*