PHYSICAL AND MICROBIOLOGICAL CONTAMINATION ANALYSIS IN POMADE X WITH THREE DIFFERENT FORMULAS
(*Oil-Based, Clay Matte Finish, and Hair Powder*)

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ABSTRACTION

Pomade is a hair styling product in various formulas with different characteristics, such as Oil-Based, Clay Matte Finish, and Hair Powder. A manufacturer, whether an industry-scale producer or a small and medium enterprise (SME), must ensure the safety and quality of the product by existing regulations. Therefore, this study aims to analyze pomade's physical properties and microbial contamination quality with three different formulas: Oil-Based, Clay Matte Finish, and Hair Powder, produced by a local brand in Singosari, Malang Regency. The research methods included physical analysis consisting of organoleptic tests, homogeneity tests, pH testing, and spreadability tests. In addition, microbial contamination was tested using the Total Plate Count (TPC) method to determine the total bacterial colonies. The pH test results for all formulas met the pH requirement of less than 7. However, the spreadability test showed that two formulas (Hair Powder and Clay) did not meet the requirements, while the Oil-Based formula did, with a 5–7 cm. The homogeneity test showed that the Hair Powder and Oil-Based formulas were evenly homogeneous, while the Clay formula was only slightly homogeneous (presence of sediment). In the organoleptic test, each of the three formulas showed unique characteristics. The microbial contamination test results showed that the TPC value for the Hair Powder sample was $3x10^2$ CFU/gram, Oil-Based had $2.5x10^3$ CFU/gram, and Clay had $9x10^4$ CFU/gram. Based on this study, it can be concluded that the differences in physical properties among the formulas are correlated with the composition of the ingredients used. The results also indicate that all three formulas meet the quality standard requirements of BPOM Regulation Number 12 of 2019 regarding contaminants in cosmetics, which states that the TPC in cosmetics must be less than $5x10^7$ CFU/gram.

Keywords: Pomade, formula, physical properties, microbial contamination