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Shampoo Chemistry

The purpose of this experiment was to take shampoos that are used every day and test them for their efficacy in various areas of hair care. It is important to take care of hair and in order to test the shampoo products; the foam volume and retention, viscosity, pH, and ink dispersal were compared. Using four common shampoos, it was possible to determine which one had better chemical qualities through comparative research.

Each test performed provided one additional measurement relating to the chemical performance of the specific shampoo. In addition, interesting facts concerning the overall composition of ingredients and how they affect the effectiveness of each shampoo was discovered. The results were then compiled to determine which shampoo would be the most effective. Finally, the costs were compared in order to determine cost effectiveness in relation to performance.

In this experiment, cost was associated with quality and therefore the most expensive shampoo, Biolage Matrix, was hypothesized to be the best. In the end however, it was determined that quality is not directly related to cost. It was determined that the TRESemmé shampoo retained the best value. Other findings included basic ingredients that may be harmful to hair, such as sulfates.

To make this project truly impacting, the evaluation of a more significant variety of shampoos would be necessary. Consumers are generally interested in getting more for their money and as a concerned consumer it is nice to have proof that all shampoo claims are not false.