

ABSTRACT

DSM-Firmenich AG is a Swiss-Dutch company that has the purpose of “Putting the pro in progress” in making positive emotions to enhance well-being. At PT Firmenich Indonesia, which is located in Cileungsi, the quality control in flavorings is divided into two divisions: raw material and finished goods. The responsibility of a quality control intern is to inspect the quality specifications of incoming samples from raw materials to the finished product by analytical measurement and organoleptic test. As one of FG's products, orange emulsion flavoring is considered to have a short shelf-life due to being made of citrus essential oils which are susceptible to oxidation. Hence, a project to observe the effect of storing temperatures on its quality attributes and to estimate the shelf life of orange emulsion flavoring indicated by the quality attributes in terms of pH, SG, and RI values in accelerated storage conditions was performed. Results showed temperatures of 5°C, 20°C, and 55°C affected quality attributes by decreasing the pH value and increasing the SG value throughout the storage period. In addition, temperatures of 5°C and 20°C were found to have an effect by increasing the RI value throughout the storage although a temperature of 55°C affected the RI value even though it was not significant. Using the Arrhenius method, the shelf-life of orange emulsion flavoring was estimated to be 133 days at 5°C, 123 days at 20°C, and 105 days at 55°C.

Keyword: *ASLT, orange emulsion flavoring, pH, refractive index, specific gravity*