

ANALYSIS OF SODIUM BENZOATE LEVELS IN FRUIT JAM CIRCULATING IN THE ARJOSARI VILLAGE MARKET PASURUAN CITY

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ABSTRAK

Background: Jams widely consumed by the public are strawberry jam and pineapple jam. Based on BPOM Regulation No. 11 of 2019, the maximum permitted use of sodium benzoate as a preservative in jam is 200 mg/kg. Excessive use of sodium benzoate can cause health problems, especially in the digestive system and nervous system. Based on this, it is necessary to conduct research to determine the levels of sodium benzoate in strawberry jam and pineapple jam.

Objective: This study aims to determine the results of the sodium benzoate content test and the value of sodium benzoate in strawberry jam and pineapple jam samples circulating in the Arjosari Village Market, Pasuruan.

Research methods: This study is a descriptive study using qualitative test with 5% FeCl₃ and quantitative tests with the UV-Vis Spectrophotometry method. The jam samples tested were obtained from several shops in the Arjosari Village Market area, Pasuruan, as many as 10 samples. **Results:** The results of qualitative analysis with 5% FeCl₃ obtained positive results in sample F, indicated by a color change. In quantitative analysis, the absorbance of benzoic acid was measured at a wavelength of 272 nm. A linear regression equation of $y = 0.0067x - 0,0085$ was obtained. From the analysis results obtained, the sodium benzoate content contained in the sample was 959,027 mg/kg.

Conclusions: This result indicates that 1 of the 10 jam samples did not meet the provisions for the use of food additives as stated in the Regulation of the Indonesian Food and Drug Authority No. 11 of 2019 which states that the limit for the use of sodium benzoate as a preservative in jam is 200 mg/kg.

Keywords: Sodium benzoate, strawberry jam, pineapple jam, UV-Vis spectrophotometry