

Application of an accuracy profile strategy based on the β -expectation tolerance interval for the validation of a liquid chromatography analytical method for the quantification ...

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Description

This paper presents the validation of a method for the quantification of benzoic acid and its salt preservatives, which are extensively used in the preservation of foodstuffs. The Joint Expert Committee on Food Additives at the Food Agricultural Organization and World Health Organization has established maximum permitted limits for these compounds in different foodstuffs because of the harmful effects of benzoic acid and its salt preservatives when they exceed certain limits. Therefore, a reliable and simple method to quantify these preservatives was validated. The developed method used a combination of extracted external calibration standards, a simple extraction procedure, and reversed-phase HPLC. This method was validated by applying a new approach in which the total error was based on the β -expectation tolerance interval developed by the Society of Pharmaceutical Science and Techniques Commission ...