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Poster

## VALIDATION OF METHODS FOR THE DETERMINATION OF PH AND PHOSPHATES IN FOODS



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### ABSTRACT

Nowadays food companies are obliged to produce food that not only covers nutritional needs, but are also safe for consumption, as well as not being a source of disease and infection. This is why there are controls at all points in the production chain for potentially dangerous elements. Regarding chemical hazards, one of the main determinations in food is the content of additives i. e. phosphorus additives, which are those that contain inorganic phosphorus as a main component. The food companies carry out analysis of the content of these additives according to the Regulation (EU) No. 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers. This regulation is focused on the protection of public health and consumers, the prevention of fraud and the protection of industrial and commercial property rights, indications of provenance, registered designations of origin and the prevention of unfair competition.

Moreover, food analysis laboratories carry out other types of routine tests as pH due to its high influence on food security. In this study, the validation of phosphorus and pH determinations were carried out separately. The validation of the phosphate analysis was based on the formation of molybdivanadophosphate complex measured spectrophotometrically. The validation of the pH determination was carried out using reference materials of fruit juice, cheese, meat and milk in Laboratorios Vital. In addition, patterns were used to cover the entire pH range between 1,00 and 13,01. In both validations, parameters such as accuracy, repeatability and reproducibility were studied.

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