

**LEVELS OF NITRATE AND NITRITE, DETERMINATION OF pH AND WATER ACTIVITY OF FRESICAL SAUSAGES FROM NORTHWESTERN RIO GRANDE DO SUL**

*(TEORES DE NITRATO E NITRITO, DETERMINAÇÃO DE PH E ATIVIDADE DE ÁGUA EM LINGUIÇAS DO TIPO FRESICAL ORIUNDAS DO NOROESTE DO RIO GRANDE DO SUL)*

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Curing salts, such as sodium and potassium nitrite and nitrate, are widely used as food additives in the processing of meat products. In addition to preserving the meat against bacterial spoilage, these salts are color fixatives and curing agents, as well. The application of sodium nitrite and nitrate above the limits established by the Brazilian legislation (Ordinance No. 1004/1998-ANVISA), 0.015 g/100g and 0.03 g/100g of the product, respectively, can cause serious risks to human health due to the possibility of acute and chronic toxic effects. The aim of this study was to determine the amount of sodium nitrate and nitrite in sausages of the Frescal type that were produced industrially by factories subject to different inspection levels (Federal and State) or not inspected (artisanal production) and compare the values found with those recommended by the Brazilian legislation. For this, six samples of each group were collected in retail stores in Northwestern Rio Grande do Sul state and analyzed in triplicate. Water activity (Aw) and pH of all samples was also determined. The average pH of the samples ranged between 5.25 and 6.27 while water activity (Aw) varied between 0.849 and 0.890. For fresh pork sausages produced industrially by factories subjected to Federal and State Inspection and without inspection, the amounts of nitrite present were 0.00012 g, 0.00016 g and 0.00006 g per 100g respectively. As for the nitrate, the amounts present were 0.0017g, 0.0050g and 0.0002g per 100 g of the product, for Federal, State and no inspection respectively. Thus, none of the samples contained amounts exceeding the maximum tolerance limits for sodium nitrite and nitrate in meat and meat products; therefore, the sausages offered no risk to human health regarding the analyzed parameters.

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