

Provia[®] K

Zero sodium - maximum safety

Niacet

Provia K is the new potassium addition to the Niacet Provia product line, specifically designed to preserve meat products with no sodium addition. It is a highly effective blend of potassium acetate and potassium diacetate. With zero sodium content, Provia K is an excellent solution for the production of safe and low sodium meat products. Provia K has excellent antimicrobial properties against pathogenic bacteria of great concern in meat like *Listeria* and is effective at a very low dosage.



Available as powder

Many meat manufacturers use liquid preservatives which increases their manufacturing costs and processing complexity (transportation, storage, dosing etc.). Provia K is available as an easy to handle white powder which can prevent all these difficulties. Provia K does not react with any other ingredient in the meat recipe.

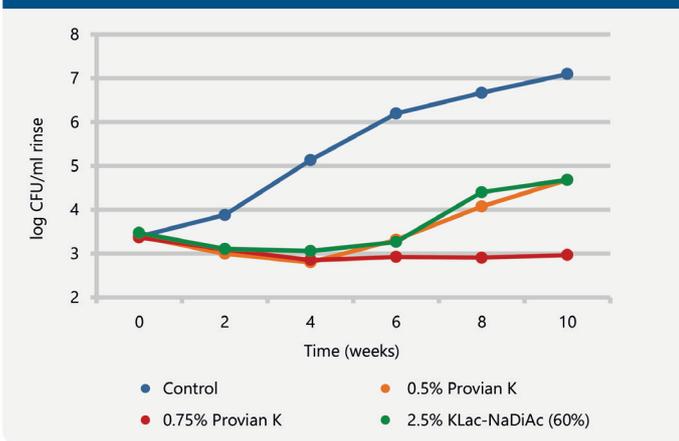
Low dosage

The approved dosage of Provia K depends on local legislation, meat type and shelf life requirements. In the United States, potassium acetate is approved as a flavoring agent and potassium diacetate as an antimicrobial in various meat and poultry products (FSIS 7120.1). In the EU, potassium acetate and potassium diacetate are both approved for meat applications under one E number (E 261). For optimal effect, Niacet recommends a dosage level of 0.50% of Provia K based on the total weight of the meat formulation before cooking. Lower dosages can be used when the requirements for shelf life are less stringent.

Excellent microbiological inhibition

Provia K offers an excellent safety profile for processed meat products even if storage temperatures are abused, which is common during transportation and storage. Provia K did not allow any growth of *Listeria monocytogenes* for 90 days as demonstrated in a challenge study with cooked frankfurters. This efficacy was also observed in cured Turkey at higher storage temperatures (Graph 1), showing the advantage of Provia K versus liquid potassium based alternatives.

Graph 1: Growth of *Listeria monocytogenes* in Cured Turkey at +7°C / 45°F



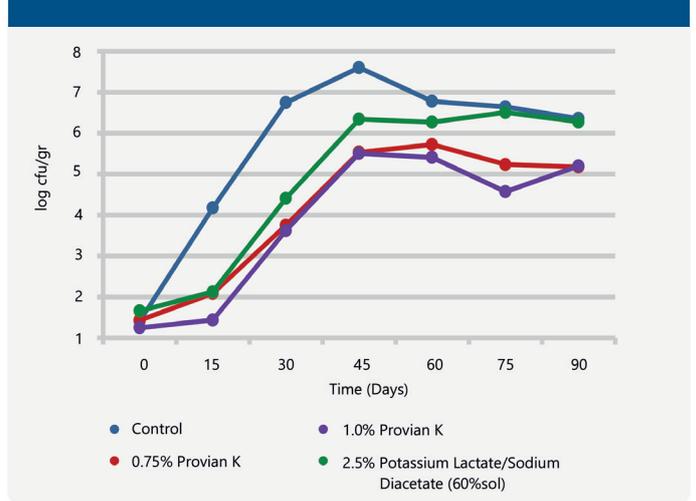
Sensory evaluation

Provia K's effect on the organoleptic characteristics of frankfurters was tested in a sensory analysis study completed by a large number of consumers. No significant differences were found between frankfurters containing no antimicrobials, Provia K and potassium lactate liquid alternatives. Quality parameters like cooking losses and pH were also measured. Based on all the results, Provia K at the suggested dosage levels does not influence negatively any of the quality parameters of the frankfurters.

Shelf life extension

Provia K extends the shelf life of processed meat products even at elevated storage temperatures such as 7°C, as shown in the following graph. While the frankfurters with no added antimicrobials had a shelf life of approximately 20 days, frankfurters containing Provia K had a shelf life of at least 45 days.

Graph 2: Total aerobic bacteria growth inhibition at +7°C / 45°F



Provia® K

- Excellent antimicrobial growth inhibition properties, especially against *Listeria monocytogenes*
- Zero sodium content, benefitting sodium reduction programs for meat products
- Cost effective: dosages at least 50% lower in comparison with lactate-based alternatives
- Only one E number for labeling in EU
- Easy handling (dry product)
- No adverse effect on organoleptic characteristics
- No changes in pH or cooking yield

Niacet

World-Class Quality, World-Class Reputation

Niacet is a leading producer of organic salts, including propionates and acetates, serving the Food and Pharmaceutical industries. With two longstanding and fully automated manufacturing sites, located in Niagara Falls, NY USA, and Tiel, The Netherlands, Niacet offers world-class quality products to a global market.

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