

PRATHISTA INDUSTRIES LIMITED

AN ISO : 9001, 14001 & OHSAS 18001 CERTIFIED COMPANY

SUCCESS WITH NETWORKING



PRATHISTA®

The pride of being

INDIA BASED MULTINATIONAL COMPANY

PRATHISTA LACTATES BLEND

To Control "Listeria" Growth and also to enhance Shelf - Life
and flavor for all type of Meat Products - Based on Fermented Cane juice/ Flour"

PRATHISTA MISSION

RESEARCH & DEVELOPMENT

GREEN TECHNOLOGIES

FARMERS' PROSPERITY



NON GMO

PHARMACEUTICALS

FOOD INGREDIENTS

NUTRACEUTICALS

FEED SUPPLEMENTS

PRATHISTA COLLABORATORS - GOVT. OF INDIA



National Agricultural Innovation Project, Indian Agricultural Research Institute,
Central Arid Zone Research Institute,
Indian Council of Agricultural Research & Council for Scientific & Industrial Research

"MAKE IN INDIA PROJECT"

www.prathista.com

"Prathista Lactates Blend - To control " Listeria " Growth and also to Enhance shelf - life and flavor for all type of Meat Products - Based on Fermented cane juice / flour"

Preamble: Listeria monocytogenes is the species of pathogenic bacteria that causes the infection listeriosis. It is a facultative anaerobic bacterium, capable of surviving in the presence or absence of oxygen. It can grow and reproduce inside the host's cells and is one of the most virulent food borne pathogens, with 20 to 30% of food borne listeriosis infections in high-risk individuals may be fatal and responsible for an estimated 1600 illnesses.

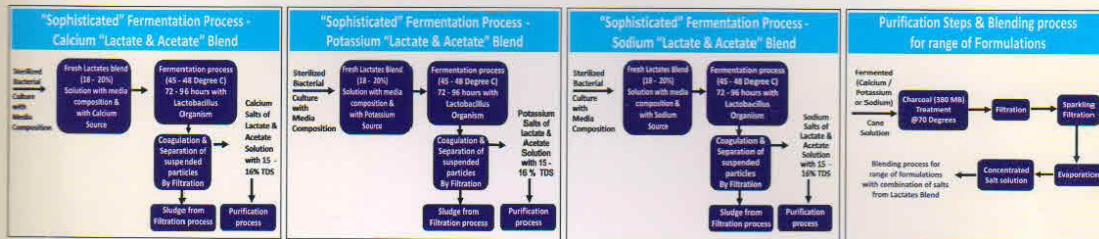
Listeria monocytogenes is a Gram-positive bacterium and its ability to grow at temperatures as low as 0 °C permits multiplication at typical refrigeration temperatures, greatly increasing its ability to evade control in human foodstuffs.

In order to fix above issues and for 100% Food safety and to enhance shelf -life in meat, Prathista – An established 21 years old Bio Technology company, developed unique eco-friendly and non GMO formulations with 100% Food Safety and shelf - life for meat and Poultry products including for cooked meat products.

One stop solution - "Prathista "Lactates Blend" - To control " Listeria " Growth and also to Enhance shelf-life and flavor for all type of Meat Products - Based on Fermented cane juice / flour" is undisputed top shelf solution for Listeria control with many more advantages for meat and poultry products, for range of cooked meat products. Technological Revolution: Natural Fermentation process for production of formulations of Lactate & Acetate salts.

Prathista joined hands with Indian National laboratories to develop and commercialize fermentation process for Lactic acid, Lactates with Acetates and the manufacturing process requires state of the art "Anaerobic" fermentation facilities.

Prathista Unique technology is based on fermentation of naturally available "Sugar Cane Juice" to manufacture range of lactate and acetate salts under Hygienic and aseptic conditions.



Advantages of various Lactate salts:

Sodium Lactate:

The salt form of Lactic acid is Sodium Lactate which commonly used in the food industry including meat products. Sodium lactate is a generally recognized as safe (GRAS) ingredient. It is used as an emulsifier, a flavour enhancer, a flavouring agent, a humectant, and a pH control agent.

There are three proposed mechanisms by which the sodium lactate ion can have an antimicrobial affect; the first is changing water activity (a_w), the second is the sodium lactate passing through the cell membrane and lowering intracellular pH, and the third is affecting cellular metabolism by inhibition of ATP generation.

Sodium Lactate also been shown to improve colour stability of fresh meat and has been reported to function as an antioxidant.

Potassium Lactate:

Potassium Lactate can dramatically increase shelf - life in a wide range of meat, poultry and cooked meat products. Potassium Lactate inhibits microbial growth and oxidative changes. The use of Potassium Lactate offers control against many pathogens found in refrigerated food products.

Potassium lactate exhibits antimicrobial properties against Clostridium botulinum, Staphylococcus aureus and Listeria monocytogenes. Because of its hygroscopic nature, Potassium Lactate also has a positive effect on a products water holding capacity, which may result in less purge, a higher cook yield and an improved texture for cooked product.

Potassium Lactate is an excellent alternative as a salt substitute for low sodium applications because it has functionality similar to salt, strong water binding properties and bacterial control.

"Prathista Lactates Blend - To control " Listeria " Growth and also to Enhance shelf-life and flavor for all type of Meat Products - Based on Fermented cane juice/ flour"

It is blend of Organic salts such as Lactates and Acetates (Potassium and Sodium salts of Lactic acid and acetate).

- It is real game changer for Food Safety.
- Delivering top shelf Listeria control and enhancing shelf-life, while improving production yields, purge and texture of all meat related products, including Poultry products and cooked meat products.
- It is an undisputed top shelf-life solution for Listeria control.

For more than two decades, Prathista "Lactates Blend" - provided meat producers with stabilized formulation that meet the dual need for great tasting products that are 100% safe and provide maximum shelf - life, as the formulation is produced through eco-friendly fermentation process, with years of Research back ground.



Prathista Lactates Blend – Formulation 1 - Cost effective, lower dose and listeria control formulation for all meat and poultry products.

Prathista Lactates Blend – Formulation 1	
Form	Liquid
Label Claim	Potassium Lactate (25 %) Potassium Acetate (25 %) Sodium Diacetate (15 %)
Target dose Level	0.8 to 1.50%
Sodium impact on Product	Sodium impact on Product

Targeted shelf-life extension for formula 1	
Formula 1	Possible shelf-life Extension
0.80 %	Max 60 %
1.25 %	Max 80 %
1.50 %	Max 100 %

Prathista Lactates Blend – Formulation 2 – Cost effective Shelf-life formulation for wide variety of low to medium moisture cured cooked meat products

Prathista Lactates Blend – Formulation 2	
Form	Liquid
Label Claim	Sodium Lactate (35 %) Sodium Diacetate (16 %)
Target use Level	0.80 - 1.80%
Sodium impact on Product	Medium

Targeted shelf - life extension for formula 2	
Formula 2	Possible shelf-life Extension
0.80 %	Max 50 %
1.40 %	Max 75 %
1.80 %	Max 100 %

Prathista Lactates Blend – Formulation 3 – Cost effective Shelf-life formulation for wide variety of cured and uncured cooked meat products as it has minimum flavour only with no Sodium contribution to the final formulation.

Prathista Lactates Blend – Formulation 3	
Form	Liquid
Label Claim	Potassium Lactate (40 %) Potassium Acetate (20 %)
Target use Level	0.50-1.00 %
Sodium impact on Product	NIL

Targeted shelf-life extension for formula 3	
Formula 3	Possible shelf - life Extension
0.50 %	Max 60 %
0.75 %	Max 80 %
1.00 %	Max 100 %

Prathista Lactates Blend – Formulation 4 – Cost effective shelf-life formulation for wide variety of cured cooked meat products including Frankfurter, Cooked Sausage and ham.

Prathista Lactates Blend – Formulation 4	
Form	Liquid
Label Claim	Potassium Lactate (65 %) Sodium Diacetate (10 %)
Target use Level	0.50-1.25 %
Sodium impact on Product	Medium

Targeted shelf - life extension for formula 3	
Formula 4	Possible shelf - life Extension
0.50 %	Max 50 %
1.00 %	Max 80 %
1.25 %	Max 100 %

Unique features for Prathista "Lactates Blend" :

1. Antimicrobial effect
2. Increased Tenderness
3. Increased Cook yield
4. Flavour Enhancer
5. Colour Stability

Multiple Advantages of Prathista "Lactates Blend" :

Prathista Lactates Blend finding the way into many different applications in the food industry. Both the fresh meat and processed meat sectors have found numerous benefits for using Prathista Organic Formulation.

1. It is used to rinse the carcasses of beef, pork and poultry. The Food Safety and Inspection Service (FSIS) has approved using food grade FDA GRAS organic acid in aqueous solutions of 1.50% to 2.50% for carcass washing applications to reduce the pH to levels which do not allow bacteria to initiate growth.
2. It is used in the production of processed meats and has been found to improve characteristics such as tenderness, shelf - life, and color stability.

Availability

Prathista "Lactates Blend" is proven and established – available in both bulk tankers as well as in small packs @ 40 kg of various formulations, depending on unique needs.

Prathista - an India Based Multinational Company

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CERTIFICATIONS FOR PRODUCTS & SERVICES

- GMP as per DMF
- ISO 9001, 14001 & OHSAS 18001
- KOSHER
- HACCP (Hazard Analysis Critical Control Points)
- HALAL
- ISO 22000 : 2005 (Food Safety Management System)
- US - FDA
- FSSAI - Govt. of India



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