

e(Lm)inate[®] listeria concerns and gain control of your formula costs.

New e(Lm)inate[®] low-inclusion technologies deliver greater pathogen control and better flavor.

Hawkins is a leader in lactate blended technologies and using that expertise we developed an exceptional new line of low-inclusion antimicrobial blends that employ unique combinations of organic salts, including lactate, acetate, diacetate and propionate.

These unique blends offer you the ability to reduce usage up to 50% compared to traditional lactate and diacetate blends which reduces your costs because e(Lm)inate[®] is more effective at much lower levels at suppressing listeria growth.

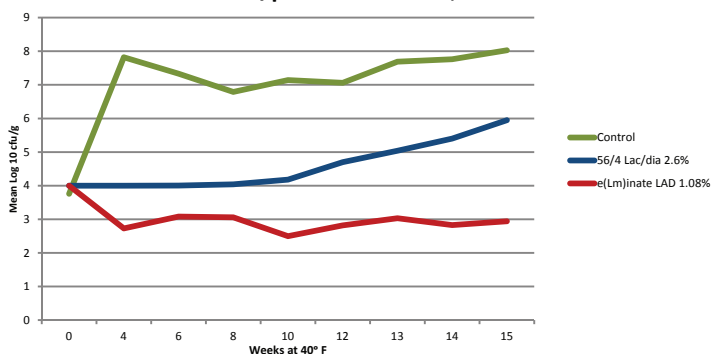
We've partnered with industry, academia, government and independent laboratories to test our antimicrobials under real-world conditions. That's the only way we know to ensure the efficacy of our world-class products.

Need a natural alternative? We offer e(Lm)inate[®] V made from natural vinegar in a concentrated liquid form for uniform blending, superior flavor and enhanced effectiveness.

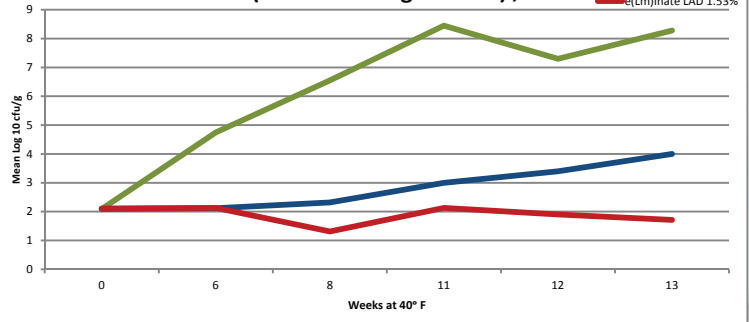
Let Hawkins work with you to customize exactly the right e(Lm)inate[®] formula.

- e(Lm)inate[®] LAD — potassium lactate, potassium acetate, sodium diacetate
- e(Lm)inate[®] 411 — potassium lactate, potassium diacetate, potassium propionate
- e(Lm)inate[®] 411S — potassium lactate, potassium diacetate, sodium propionate
- e(Lm)inate[®] 6810 — potassium lactate, sodium diacetate
- e(Lm)inate[®] VL — vinegar, potassium lactate
- e(Lm)inate[®] V — vinegar

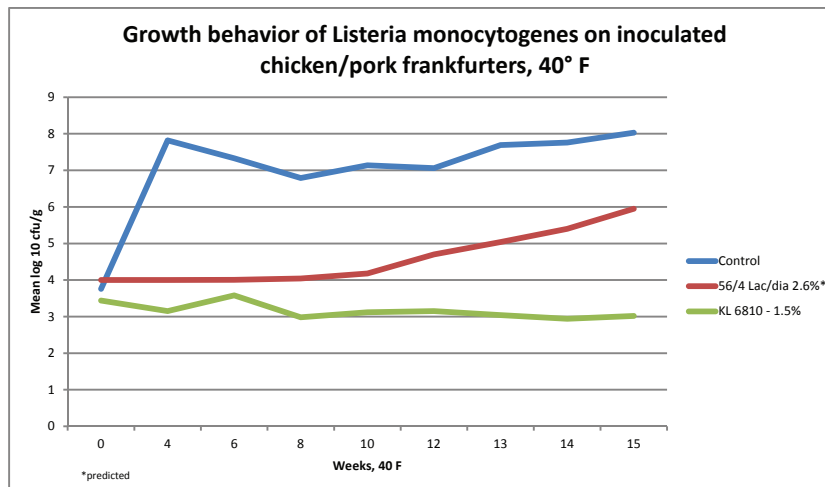
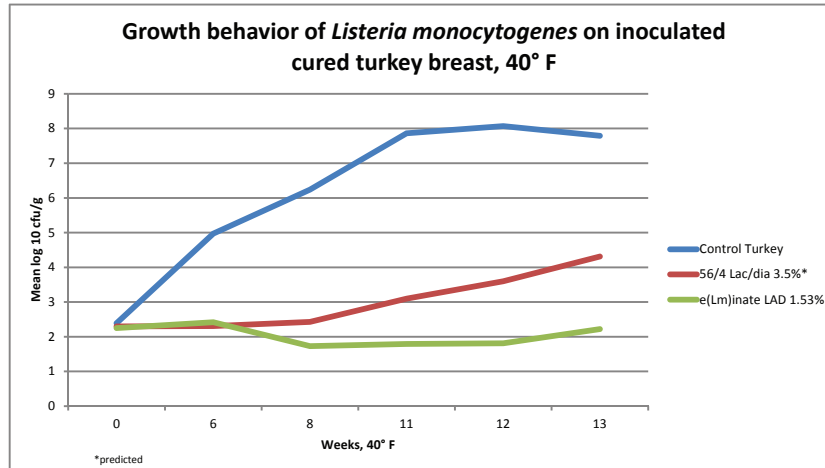
Growth behavior of *Listeria monocytogenes* on inoculated chicken/pork frankfurters, 40° F



Growth behavior of *Listeria monocytogenes* on inoculated RTE ham (35% added ingredients), 40° F



e(Lm)inate® means lower inclusion, lower costs, proven performance and customization



Science, Innovation, Application and Commitment to Customer Service

We have the most extensive product line and it continues to grow. Our product lines are based on the proven science of lactates, diacetates, acetates, vinegar and propionates in helping you make your product safer. UltraLac, Ultra-Pure and the NEW e(Lm)inate products offer you:

Shelf Life Extension Food Safety Pathogen Control Clean Label Options Better economics Sodium reduction

Hawkins is focused on liquid solutions to deliver the following advantages:
 Liquids can be easily automated helping ensure accuracy and ease of handling and storage
 Liquids offer better mixing and distribution than dry products
 Liquids are generally more economical
 Our unique process creates a cleaner flavor profile

Meat & Poultry Solution Portfolio:

UltraLac:

- UltraLac SL-60: Sodium Lactate, 60% USP
- UltraLac KL-60: Potassium Lactate, 60% FCC
- UltraLac SL-564: Sodium Lactate, 56% + Sodium Diacetate, 4% USP/FCC
- UltraLac KL-564: Potassium Lactate, 56% + Sodium Diacetate, 4% FCC
- UltraLac KSL-564: Potassium Lactate, 28% + Sodium Lactate, 28% + Sodium Diacetate, 4% FCC
- UltraLac KL-726: Potassium Lactate, 72% + Sodium Diacetate, 6% FCC

Ultra-Pure Bestate:

- Ultra-Pure Bestate-DS3: Sodium Lactate, 52% + Sodium Diacetate, 8% FCC
- Ultra-Pure Bestate-DP3: Potassium Lactate, 52% + Sodium Diacetate, 8% FCC
- Ultra-Pure Bestate-P: Potassium Acetate, 40% + Potassium Lactate, 20% FCC
- Ultra-Pure Bestate-P4218: Potassium Lactate, 42% + Potassium Acetate, 18% FCC
- Vinlac-DS2: Sodium Lactate, 52% + Vinegar, 48% FCC
- Vinlac-DP2: Potassium Lactate, 52% + Vinegar, 48% FCC

e(Lm)inate®:

Our newest line of antimicrobials that benefit the Meat & Poultry industries

