

PURAC® FCC Lactic Acid



The “gold standard” in beef surface treatment



- ✓ Naturally present and naturally fermented
- ✓ Safe, non-toxic and easy to use
- ✓ Free of odor nuisance in workers place
USDA FSIS processing aid status
- ✓ Effective for pathogens and indicators
- ✓ Over 20 years use in meat industry

Carcass treatment solutions based on natural lactic acid. Purac® FCC lactic acid can be used throughout the processing line to reduce the microbial load of fresh beef, pork, poultry or lamb.



Customers demand their suppliers to produce safe and wholesome meat products. Although animal muscle is essentially sterile, exterior surfaces are highly susceptible to microbiological contamination. Meat surfaces can be contaminated during slaughter or further processing by pathogens such as E. coli O157:H7 and Salmonella. The United States Centers for Disease Control and Prevention (CDC) estimates that approximately 1 in 6 Americans (48 million people) each year will contract foodborne illnesses¹. Purac® FCC 88 Lactic Acid offers natural surface treatment solution which enables meat processors to lower microorganism counts and produce the safest meat products possible.

Reduce pathogens

The international meat industry “Gold Standard” for carcass and fresh meat treatment is PURAC® FCC lactic acid. Used across the food industry for over 20 years, PURAC® FCC is the leading solution to reduce pathogens and spoilage bacteria on carcass and fresh meat. PURAC® FCC has proven to be an effective decontamination solution. Lactic acid is naturally present in meat, naturally produced by fermentation, safe, easy to apply and widely approved for use on beef carcasses and fresh beef around the globe.

Pathogen reduction

In a recent study at Oklahoma State University (USA), PURAC® FCC lactic acid and 3 other commercially available intervention products were compared for efficacy on beef carcasses. A 4% solution of PURAC® FCC 88 was the most effective antimicrobial to reduce *E. coli* O157:H7 when compared to 2.5% citric acid/lactic acid blend, 40% buffered sulphuric acid and 0.02% peracetic acid (PAA). Lactic acid and lactic acid / citric acid blend were applied at 120 °F (49°C), whereas buffered sulphuric acid and PAA were applied at room temperature. Results are presented in Figure 1. Treatment of 4% lactic acid resulted in a 1 log reduction immediately after application. In similar studies with inoculated beef carcass a 4-5 log reduction was reported.

In another recent study by Texas Tech University, the antimicrobial effect of PURAC® FCC lactic acid on beef carcass samples inoculated with *Salmonella* was determined. A 3% lactic acid solution prepared from PURAC® FCC 88 resulted in 3.16 log reduction of *Salmonella* in 24 hours. Results are presented in Figure 2.

Reduce Aerobic Plate Count

PURAC® FCC lactic acid is also very effective in reducing microbial hygiene indicators. In a test with chilled beef carcasses, the beef surface was sprayed with water and 4% lactic acid at room temperature. The lactic acid treatment resulted in a 2 log reduction for APC, Coliforms and *E. coli*. (figure 3).

Regulatory

Overall the regulatory environment is in favor of the use of lactic acid to treat beef carcasses and fresh meat. In the US and the EU, lactic acid for beef carcasses and fresh beef treatment is regulated as a processing aid and does not require labeling.

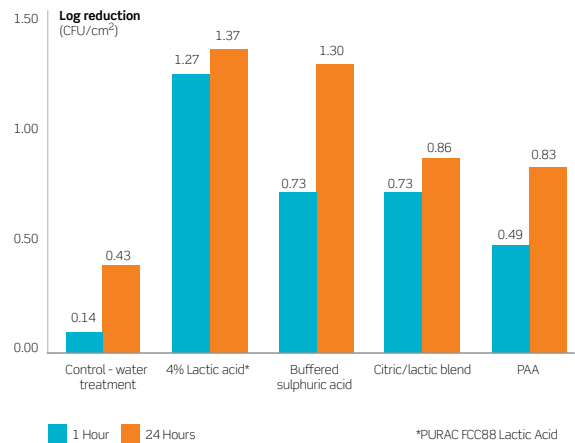


Figure 1

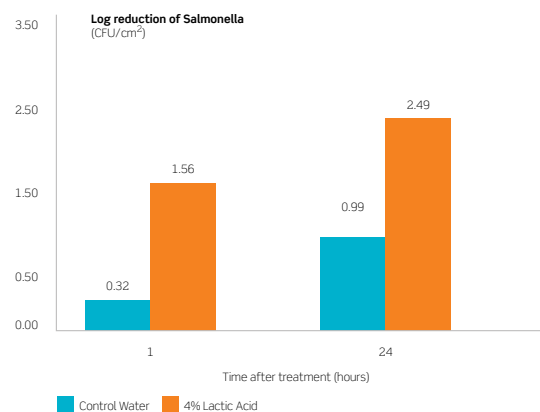


Figure 2

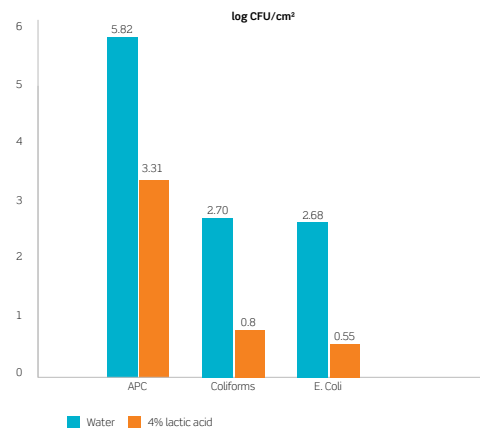


Figure 3

Interested in surface treatment solutions? Go to Corbion.com/surfacetreatment

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Corbion is a leading company in natural food preservation, lactic acid based bioplastics, biobased chemicals and the worldwide market leader in lactic acid, lactic acid derivatives and lactides. Corbion has 80 years experience in the development, manufacturing and marketing of these products in a broad range of industries. Corbion operates production plants in the USA, The Netherlands, Spain, Brazil and Thailand and markets its products through a worldwide network of sales offices and distributors. Corbion is headquartered in The Netherlands.

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