

Press Release**NEW STUDY: PHAGEGUARD S MORE EFFECTIVE AT REDUCING SALMONELLA THAN CHEMICAL TREATMENTS****May 2018**

Micreos, a pioneer in cutting-edge pathogen reduction technology, today announces the results of a newly published scientific study which found that PhageGuard S, a new treatment for Salmonella reduction on food products, is more effective than lactic acid (LA) and peracetic acid (PAA). The findings are of particular interest to meat and poultry processors looking to minimize the use of chemicals in their production processes and protect worker safety.

This recent study¹, carried out by Assistant Professor Amilton de Mello and his team of researchers at the University of Nevada, concluded that traditional chemical treatments such as LA and PAA cut Salmonella levels by under 60%. However, PhageGuard S, a natural phage solution, significantly reduces bacterial levels, killing up to 94% of Salmonella in the samples tested. These results challenge the perceived effectiveness of traditional chemical interventions for foodborne pathogen control and highlight phages as a superior and more successful alternative for enhanced consumer safety.

PhageGuard S, specifically developed to eliminate Salmonella in meat and poultry products, is USDA and FDA-approved and 100% organic, addressing increasing consumer demands for more natural food processing aids and industry transparency. Unlike traditional chemical treatments, PhageGuard S kills Salmonella without affecting organoleptic properties such as taste, odor or texture in food products.

"Salmonella remains a public health concern, with 1.2 million cases recorded every year in the US alone²," says Bert de Vegt, Managing Director at Micreos Food Safety. "Although lactic acid and peracetic acid are widely deployed throughout the industry, consumer demand and health and safety concerns call for different solutions. This report echoes the results we have observed in numerous commercial trials in poultry, fish and red meats and makes a convincing case for switching to phage".

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For more information about PhageGuard S please contact Micreos at info@micreos.com or in the USA Robin Peterson at +1 (847) 620 9386 and in Europe Dirk de Meester at +31 (0)6 4604 8503 or visit: <https://www.phageguard.com/salmonella-solution/>.

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About Micreos

Micreos develops endolysin- and phage technology that enables targeted killing of unwanted bacteria. The company is considered the leader in this exciting new field. Micreos runs its own production and R&D centre for endolysins in Bilthoven and for phages in Wageningen 'Food Valley'. Micreos's head office is in The Hague. The company works together with ETH Zurich and numerous universities and technology centres. Micreos Food Safety produces the FDA-approved products PhageGuard Listex, against *Listeria*, and Phageguard S, against *Salmonella* (www.phageguard.com). Gladskin is a Micreos Human Health brand (www.gladskin.com).

¹ Y. Yeh et al., 'Effect of ultraviolet light, organic acids, and bacteriophage on Salmonella populations in ground beef', Meat Science, vol. 139, 2018, pg. 44-48.

² Centers for Disease Control & Prevention: salmonella factsheet.