

CLEAN LABEL SOLUTIONS IN MEAT APPLICATIONS SUBSTITUTION OF PHOSPHATES



Despite missing a legal or commonly accepted definition, Clean Label pushes industry to re-evaluate ingredients, formulations and processes. Consumers' desire is what drives the industry to abandon some ingredients and to find substitution for practices considered traditional in the food manufacture. Phosphates used in meat products have several functions, such as pH adjustment, buffer properties, sequestration of selected ions and changing the ionic charges distributions and/or bacteriostatic effects. Sequestration of metal ions will enhance the water holding capacity and improve the degree of tenderness and color of meat.

How to avoid phosphates?

Lalvita™ 2190 and Toravita® 033 can play a role!

The combination of selected inactive yeast, such as **Lalvita™ 2190** and **Toravita® 033** with specific process optimization, can allow the successful substitution of phosphates in emulsified meat products and other types processed meat. **Declaration on ingredients list: inactive yeast or natural flavoring according to EU**

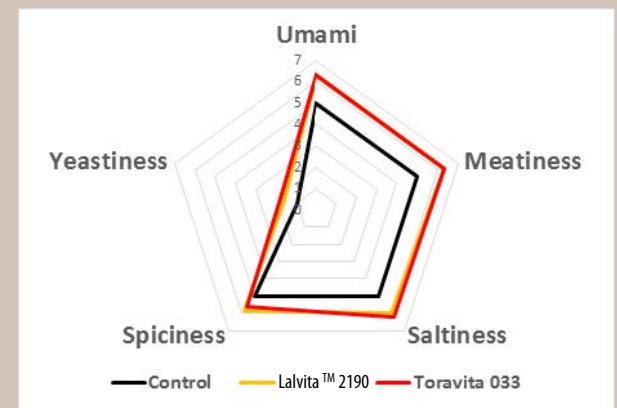
regulation 1334/ 2008 Lalvita™ 2190 and Toravita® 033, at indicative dosage of 0,5-0,7% in finished product, allow the stabilization of water, the color stabilization and flavor enhancement in emulsified sausages, deli hams and other processed meat.



Example of application: Emulsified sausage

Ingredients		A - Control		B - Lalvita™ 2190		C - Toravita™ 033	
		kg	%	kg	%	kg	%
Meat Mass	Beef Meat Class II	3,0	30%	3,0	30%	3,0	30%
	Pork Meat Class II	1,5	15%	1,5	15%	1,5	15%
	Ice Flakes - water	2,5	25%	2,5	25%	2,5	25%
	Pork Fat	3,0	30%	3,0	30%	3,0	30%
TOTAL		10	100%	10	100%	10	100%
Additional ingredients or additives	Nitrite Salt-Curing salt	0,2	2,0%	0,2	2,0%	0,2	2,0%
	Ascorbic Acid-Color stabilizer	0,015	0,15%	0,015	0,15%	0,015	0,15%
	Sausage spice Mix	0,05	0,5%	0,05	0,5%	0,05	0,5%
	Phosphate blend	0,03	0,3%				
	Lalvita™ 2190			0,07	0,70%		
	Toravita® 033					0,07	0,70%

Spider chart



Sausage characteristics - taste perceptions

The structure and water content of sausages produced with **Lalvita™ 2190** and **Toravita® 033** in substitution of phosphates is comparable to the one with phosphate salts. Tastewise, the yeast based products have a positive impact on meat flavor release, enhancing also spiciness and saltiness perception. Structure, bite, chewiness and color are not significantly modified, confirming the opportunity of phosphate-free processed meat.



To learn more or request a sample

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