



# LOOKING FOR LOWER-SODIUM SOLUTIONS?

Innophos phosphates can help  
you reduce sodium in meats,  
baked goods and cheeses.



**A**s more and more consumers look to follow FDA guidelines to reduce sodium in their diets, the market for low-sodium processed foods shows no signs of slowing down. In fact, the American Heart Association is one of several major health organizations pushing to cut salt levels in processed foods by 50 percent to help combat high blood pressure.

Now, subtracting sodium from meats, baked goods and cheeses can be a win-win for both consumers and food processors, thanks to versatile Innophos phosphate solutions such as CAL-RISE<sup>®</sup> and CURAVIS<sup>®</sup> So-Lo 93.

"In general, the trend is to lower factors that contribute to high blood pressure, and Innophos can help companies achieve substantial reductions in sodium for many products," says Eugene Brotsky, technical service manager, meat and cheese, for Innophos in Cranbury, N.J.

## Better Baking

Many processors don't even consider replacing the leavening agent in baked goods to reduce sodium, but it can be an ideal solution for retaining taste and texture. Nearly all of the sodium in baked goods comes from salt, sodium bicarbonate and leavening acid, so using a sodium-free leavening agent can make a significant difference in overall salt levels.

In fact, sodium reductions of 20 to 35 percent are possible in baked goods made with Innophos's CAL-RISE, a sodium-free, slow-acting, calcium-based leavening agent that is as economical to use as SAPP

### Quantity of Sodium and Calcium in Leavening Ingredients

INGREDIENTS	SODIUM (mg) per 100 grams	CALCIUM (mg) per 100 grams
Sodium Bicarbonate	27,370	0
Potassium Bicarbonate	0	0
Sodium Acid Pyrophosphate (SAPP)	21,000	90
Sodium Aluminum Phosphate (SALP)	2,100	400
Monocalcium Phosphate, Monohydrate (MCP-M)	0	16,700
Monocalcium Phosphate Anhydrous (MCP-A)	0	17,000
<b>CAL-RISE*</b>	<b>0</b>	<b>18,000</b>

28 (sodium acid pyrophosphate). CAL-RISE is a chemical mixture of calcium acid pyrophosphate and monocalcium phosphate, anhydrous, produced by a patented process.

"CAL-RISE really is a drop-in to replace SAPP 28," says John Brodie, technical service manager, baking, for Innophos. "It has the same neutralizing value and the same texture properties, with no change in the baked product characteristics. It's very easy for a formulator to just drop this in."

Breakfast foods are leading the way in reduced-sodium baked goods, driven by school lunch program demands for healthier products with lower salt. CAL-RISE can help reduce sodium in the most popular breakfast baked goods, such as egg and cheese biscuit sandwiches,

pancakes and muffins, along with all-day favorites like layer and snack cakes, scones, batters and breadings, and dry mixes. And because of its calcium component, CAL-RISE may provide for a health claim of "good" or "excellent" source of calcium, especially attractive for breakfast products.

## Meaty Matters

Effectively lowering sodium levels in processed meats depends on the type of product involved: high-salt cured meats with 2 to 2.5 percent salt content, medium-salt processed meats such as poultry loaves and turkey breast with 1.25 to 1.75 percent salt, or low-salt products such as roast beef with less than 1 percent salt. With 93 percent less sodium than standard sodium phosphates,



Innophos's CURAVIS So-Lo 93 can enhance processed meats and poultry without sacrificing taste—including reductions of more than 40 percent in products with less than 1 percent salt.

"Two major meat areas with low-sodium emphasis right now are chicken breasts and deli roast beef," says Brotsky. "It's easier to have lower sodium because these products typically are not too high in sodium anyway."

CURAVIS So-Lo 93, an introductory polyphosphate blend of potassium and sodium pyrophosphate, recently proved essential to reducing sodium content in one company's canned soup product. Chicken breast and beef were first immersed in CURAVIS So-Lo 93 treatment solutions and stored refrigerated overnight. Samples were then oven cooked, diced and frozen before being added to canned soups and then retorted.

The end result? CURAVIS So-Lo 93 used with a salt substitute boosted salt flavor intensity while reducing sodium by at least 30 percent.

## Mini-Muffins WITH SAPP

Nutrition Facts	
Serving Size (50g) Servings Per Container	
Amount Per Serving	Calories from Fat 30
Calories 140	
% Daily Value*	
Total Fat 3.5g	5%
Saturated Fat 1g	4%
Cholesterol 25mg	8%
Sodium 340mg	14%
Total Carbohydrate 25g	8%
Dietary Fiber 2g	9%
Sugars 11g	
Protein 3g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 6%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Total Fat	Less than 65g	80g
Saturated Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

## WITH CAL-RISE

Nutrition Facts	
Serving Size (50g) Servings Per Container	
Amount Per Serving	Calories from Fat 30
Calories 140	
% Daily Value*	
Total Fat 3.5g	5%
Saturated Fat 1g	4%
Cholesterol 25mg	8%
Sodium 220mg	9%
Total Carbohydrate 25g	8%
Dietary Fiber 2g	9%
Sugars 11g	
Protein 3g	
Vitamin A 0%	Vitamin C 0%
Calcium 10%	Iron 6%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Total Fat	Less than 65g	80g
Saturated Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

## The Innophos Difference

Looking for fortification solutions? Innophos can help with a wide range of fortification tasks in processed foods and beverages. Innophos calcium, phosphorus, potassium and magnesium can provide fortification in beverages, dairy products, baked foods, desserts, coffee whiteners and creamers, batters and breadings, dietary supplements, meat, poultry and seafood.

## Cheese, Please

Reducing sodium in processed cheese products with functional phosphates is one of the newest solutions being researched by Innophos scientists. Internal lab work at Innophos has demonstrated that sodium reductions of 25 percent and more are possible with blends that incorporate a variety of phosphates while enhancing color, texture and flavor. The blends maintain typical phosphate benefits of



good emulsification, melt characteristics, and extended shelf life.

“Processed cheeses, such as cheese food and imitation cheese, tend to be the best candidates for sodium reduction,” says Brotsky. “It’s easier to change their sodium

content because they are processed. We have more options to affect the composition and still achieve desirable products,” he says. “And because processed cheeses are so widely used, reducing the sodium in them can make a significant reduction in the consumer’s overall sodium intake.”

At the same time, cheese processors are improving cheese nutrition in another way. Innophos tricalcium phosphate is widely used to enhance calcium fortification by inclusion in the processed cheese formulation, even to the extent of doubling the significant natural calcium level in cheese.

## A Healthy Future

Companies facing the challenge of creating healthy and tasty reduced-sodium formulations can count on Innophos for economical, efficient solutions. From CAL-RISE for baked goods to CURAVIS So-Lo 93 for meats to an array of phosphates for cheeses, Innophos is constantly working to develop new and improved ways to cut down on sodium without sacrificing good taste—or the bottom line.

## FDA Sodium Labeling Guidelines

Sodium free	less than 5 mg/serving
Very low sodium	35 mg or less/serving
Low sodium	140 mg or less/serving
Reduced sodium	at least 25% less sodium than the regular food to which it is being compared



## Concerned About Sodium?

*CURAVIS® So-Lo 93 enhances processed meat and poultry without compromising taste*

### *Innovative CURAVIS® So-Lo 93 offers:*

- ◆ 93% less sodium than standard sodium phosphates
- ◆ excellent binding qualities
- ◆ pH formulated for optimum taste and appearance

You provide the challenges and we'll provide the solutions.

Call Technical Assistance at (866) 631-7394.

Call Innophos Customer Service today at (800) 243-5052 to place your order.



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