

## Blends in Seafood Processing

Phosphate and Non-Phosphate blends are known as MRAs (Moisture Retention Agents) for use in seafood processing industry. Fresh seafood with high nutritional value has a limited shelf life, which can be extended by cold storage. However, the use of MRAs can help in providing improved benefits in seafood processing:

### Retention of Moisture

Frozen seafood lose water more rapidly than meat and poultry foods. Treatment with MRAs can help significantly in retention of moisture for long durations of time, thus maintaining the freshness and juiciness of the seafood.

### Retention of texture and flavour

Treatment with MRAs can prevent the oxidation and improve the buffering capacity of the meat that would preserve the true flavour and glossy blue white texture of seafood.

### Preservation of Nutrients

The quick loss of moisture from seafood causes essential nutrients to denature rapidly during cold storage. MRAs can extend the shelf life of seafood, thereby, preserving the essential nutrients present in seafood.



## Cephalopods

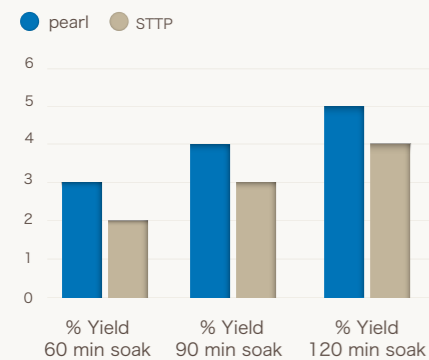
Our pearl range of products now have moisture restoring agents and bleaching agents for treatment of skin on and skinless cephalopods like cuttlefish squid and octopus. These high quality products are specially developed to improve the texturizing effects by increasing water absorption and retention capacity and optimizing industrial handling as well as texture color and quality of raw and cooked cephalopods.

Application	Product	Category	Key Advantages
All forms of Cuttlefish	Pearl C580	Non Phosphate without E-500	Good texture and shape with Natural appearance
	Pearl C98	Non Phosphate	
Squid tube	Pearl 92AB Pearl SC08	Mix Phosphate	Firm texture, tail intact with high yield
	Pearl CA603	Non Phosphate	
Whitening Agent (Liquid & Powder)	Pearl L054	Non Phosphate	Liquid whitener, gives excellent white colour, no skin burns
	Pearl CZ621	Non Phosphate	Powdered whitener, gives excellent white colour, no skin burns
Giant Squid	Pearl CG631	Phosphate Blend	Acidity remover and natural taste
Glazing Application (Shrimp/Cephalopod/Fish)	Pearl GL504	Mix Phosphate	Holds the glaze intact, prevents cracks & microbial contamination

## The **pearl** Advantage

We, at **Aditya Birla Chemicals (Thailand) Ltd.**, have designed the pearl range of phosphates and non-phosphates specifically targeted to fulfil your seafood processing requirements for various applications.

### YIELD MANAGEMENT IN H/L VANNAMEI

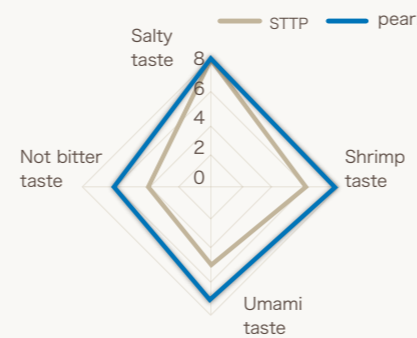


### TYPICAL MOISTURE CONTENT IN MEAT OF SHRIMP



### IMPROVES ORGANOLEPTIC PERFORMANCE

#### Sensory taste of shrimp with STTP and pearl



## pearl Applications in Seafood Processing



### Surimi

Surimi is produced by mincing finfish meat and then refined by a number of different washes. Our pearl range of phosphate blends can act as a cryoprotectant to prevent protein denaturation on storage of Surimis.



### Fish Fillets

Dipping the fish fillets in a 5 - 10% solution of pearl P12 produces a surface coating of dissolved proteins which helps retain the natural juices of the fish, and helps lock in the flavour. In addition, the thaw-drip loss of the frozen fillets will be reduced. Firmer bodied species can be treated by injection and tumbling.

Application	Product	Category	Key Advantages
Fish Fillet	Pearl P09	Mix Phosphate	Good taste, natural color, non-slimy appearance
	Pearl N08	Non Phosphate	
Alaska Pollock, Cod fish fillets	Pearl P12	Phosphate	High dissolution and yield with good texture
Surimi	Pearl P18	Phosphate Blend	Prevents protein denaturation

## Shrimp

Treatment of shrimp with our pearl® range of phosphateblends reduces the thaw-drip loss when frozen. Treatment of POTO, HLSO and butterfly shrimp prior to cooking increases retention of natural juices, and reduces the cook-cool loss. Our pearl® range of products can also help prevent melanosis in HOSO. Good texture and shape, no yellow color in cold storage



Application	Product	Category	Key Advantages
Shrimp (Raw) (H/L, Easy peel, POTO P&D, PD)	Pearl P585 Pearl P01	Phosphate Blend	Natural color & taste, firm texture and consistent higher yields
Shrimps (Cooked) (H/L, CPTO, CPD)	Pearl P898	Mix Phosphate Blend	Consistent higher yields with Less cooking loss
	Pearl LDG	Phosphate	
Shrimps (Raw)	Pearl N03 Pearl N09	Non Phosphate	Natural color & taste, firm texture and consistent higher yields
	Pearl N97	Non Phosphate without E-500	
Red Shrimps	Pearl P02	Phosphate Blend	Natural texture and controlled yield
Shrimps (Raw & Cooked)	Pearl M01	Anti-melanosis	Prevents shrimps from black spots
	Pearl E0	E-number free	Product with Natural ingredient

## Scallops

Sea scallops do not survive for long after being taken out of the water, and are usually chilled on the boat itself to prevent spoilage. Our pearl range of phosphates can be used in scallops to extend their shelf life. pearl phosphates would also help scallops to retain more moisture and stop from shrinking



Application	Product	Category	Key Advantages
Scallop	Pearl SCF1	Phosphate Blend	Maintains desired moisture, works well for long soaking time maintaining all natural properties
	Pearl SC99	Mix Blend	
	Pearl P01	Phosphate Blend	

Applications





## WHERE WE ARE AROUND THE WORLD

Aditya Birla Chemicals (Thailand) Ltd. is part of one of India's most respected industrial houses, the Aditya Birla Group.

- US \$ 44.3 billions of Revenues
- Fortune 500 company
- Present across 35 Countries
- More than 1,20,000 Employees worldwide

Aditya Birla Chemicals (Thailand) Ltd. serves customers across the world operating in diverse industries such as food processing, personal consumer products, pulp and paper detergents, water treatment and more.



# pearl®

## FUNCTIONAL INGREDIENTS FOR SEAFOOD PROCESSING



### OUR CUSTOMISED SOLUTIONS FOR FOOD PROCESSING



Phosphates for Cheese



Phosphates for Meat



Phosphates & Non Phosphates for Seafood



Phosphates for Bakery

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