

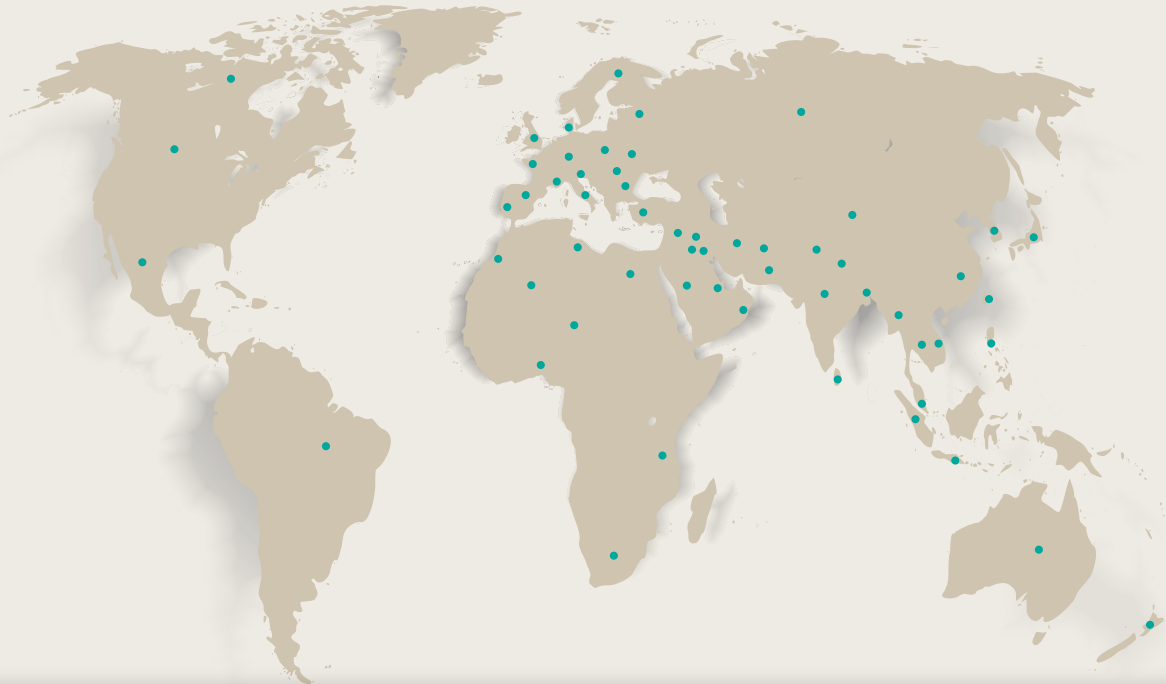


## WHERE WE ARE AROUND THE WORLD

**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.



### OUR CUSTOMISED SOLUTIONS FOR FOOD PROCESSING



Phosphates for Cheese



Phosphates for Meat



Phosphates & Non Phosphates  
for Seafood



Phosphates for Bakery

### **Aditya Birla Chemicals (Thailand) Ltd.**

Phosphates Division / Marketing Department

77 Moo 6, Soi Sukhaphiban 1

Poochao Samingprai Road, Samrong

Phrapradeng, Samutprakarn 10130, Thailand

**T.** +66 2 7042100

**F.** +66 2 7484970

**E.** [customerservices.thaichemicals@adityabirla.com](mailto:customerservices.thaichemicals@adityabirla.com)

[www.adityabirlachemicals.com](http://www.adityabirlachemicals.com)



This above information and recommendations given by us (ABCTL) is to the best of our knowledge & ability and is intended to provide general notes on our products and their usages. It should not be therefore construed as guaranteeing the specification of the product described or their suitability for a particular application. We expressly request the customer or end users of our products to perform such tests prior to any commercial use or application of our products for specific intended use. No representation, warranty or guarantee is made as to its accuracy, reliability or completeness. No consequential losses shall be entertained by usage of the product.

# corino®

## FUNCTIONAL INGREDIENTS FOR CHEESE PROCESSING





# Benefits of Blends in Cheese Processing

Processed cheese is produced from natural cheese along with other dairy ingredients, emulsifiers, salt, food color and water. While producing processed cheese, phosphate salts play a vital role during emulsifying and cooking process. Phosphate blends provide a range of benefits when used in cheese processing:

— **Regulation of pH**

The pH value of the processed cheese determines the consistency of the processed cheese. The pH value of processed cheese varies between 5.4 - 6.1 and can be controlled with the use of phosphate blends to achieve the desired value depending on the application.

— **Emulsification**

Emulsification is an important process for controlling the firmness of the cheese. Phosphate blends when used in cheese processing act as emulsifying agent to stabilize the milk proteins. Depending on the application, different phosphate blends with varying creaming strengths can be used to control the texture and firmness of the cheese.

— **Ion Exchange Property**

Phosphates have an excellent ion exchange capability that improves the emulsifying properties and solubility of the milk proteins in water. The ion exchange leads to a consistent cheese which has excellent spreadability and longer shelf life.



# CORINO® Applications in Cheese Processing

**Block Cheese**



CORINO is used to provide improved ion exchange properties to block cheese. It provides firm shape, good taste and elasticity to the cheese with easy to shred and slice properties. It protects processed cheese from crystallization and maintains natural appearance over time.

**Spreadable Processed Cheese**



After selection of natural cheese and other raw materials, our CORINO range of phosphate blends will be a key raw material for spreadable processed cheese with smooth texture and high creaming suitable for medium to high fat content. CORINO would also help improve the product stability and consistency of the cheese.

**Sandwich & Burger**



Our CORINO range of phosphate blends can be used in sliceable processed cheese for sandwich and burgers. It would also help the cheese improve re-melting capability, toasting properties, nonstick on packaging, maintain color and improve product stability.

**Pizza & Cheese Analogue**



Using 2.5 -3% of CORINO product produces a pizza cheese or cheese analogue with perfect melt, good stretching profile, and shiny appearance with delay setting and easy to shred properties.

## OUR CUSTOMISED SOLUTIONS FOR CHEESE PROCESSING

	Application	Product	Ion exchange capacity	E number	Creaming capacity	pH shift
Pizza cheese	short cheese stretch	CORINO 11 SC	★★★	E452, E331, E339	★	+ 0.0 / + 0.1
	medium cheese stretch	CORINO 70 PC	★★	E331, E452, E340		+ 0.1 / + 0.3
	long cheese stretch	CORINO 81 SL	★★	E331, E339, E452	★	+ 0.2 / + 0.4
Block cheese	thermal stable	CORINO 73 BL	★★★	E339, E452		- 0.1 / - 0.2
	quick melt	CORINO 76 BT	★★★	E452, E450, E341, E339	★	+ 0.1 / + 0.3
		CORINO 77 SL	★★	E452, E450, E331, E339	★★	+ 0.0 / + 0.1
Cheese spreads	spreadable	CORINO 76 SL	★★	E452, E450, E339, E331	★★	+ 0.0 / + 0.1
		CORINO 90 SL	★★	E452, E339	★★	+ 0.1 / + 0.3
	wedges	CORINO 90 SS	★	E452, E450	★★★	+ 0.1 / + 0.4
		CORINO 75 SP	★★	E452, E450	★★	- 0.1 / - 0.2
		CORINO 85 ST	★★	E339, E452	★	+ 0.2 / + 0.4
Cheese slices	cream cheese / quark	CORINO 38 BL	★★★	E452	★	- 0.4 / - 0.6
	IWS burger slice	CORINO 84 SLC	★	E331	★	+ 0.2 / + 0.5
		CORINO 67 BC	★★	E340, E452, E331	★	+ 0.1 / + 0.3
pH correction	alkaline	CORINO 12 PI		E339	★	+ 1.0 / + 1.5
	acidic	CORINO 45 PR		E339	★	- 0.4 / - 0.5

★ = Weak   ★★ = Strong   ★★★ = Very Strong

In addition to the above range, we also have an extensive application laboratory which is available to provide custom made solutions to your cheese processing problems. Please contact us for more information.



## The CORINO® Advantage

We, at **Aditya Birla Chemicals (Thailand) Ltd.**, have designed the CORINO range of customized phosphates specifically targeted to fulfil your cheese processing requirements for various applications.

**Offers Ideal Taste**

**Prevents Water and Fat Separation**

**Provides Good Texture**

**Improves Shelf Life**