



# Portfolio for the Nutrition industry

Nutritional lipid solutions  
for all stages of life



**BUNGE**  
Loders Croklaan





# Bunge Loders Croklaan nutrition

## Your expert partner in lipid solutions

Oils and lipids play a vital part in improving and maintaining healthy infant and adult diets. While science is constantly growing our understanding of the role of lipids in nutrition and health, informed consumers are increasingly looking for healthier and tastier choices. Bunge Loders Croklaan is committed to bringing together consumer demands and science to improve diets across all stages of life.

With more than 200 years of lipids expertise and as the inventor of OPO, Bunge Loders Croklaan is a pioneer in quality infant nutrition ingredients. Its global team of nutrition experts serves customers with a portfolio that caters to the full breadth of needs in the infant, medical, and sports nutrition industries. Building on the company's global footprint and integrated sustainable supply chains, the nutrition team is dedicated to ensuring consistent quality and worldwide availability of its lipid solutions.

Bunge Loders Croklaan is the oils and fats business of Bunge, and one of the world's leading suppliers of nutritional lipids and specialty ingredients.



Unmatched  
global presence



Fully controlled  
supply chain



Leading innovation and  
technical expertise



Full range of seed  
and tropical oils



Strict contaminant  
control

# Overview



Bunge Loders Croklaan nutrition operations

## 200 years of connecting farmers to homes

Since 1818, Bunge’s expansive network has been feeding and fueling a growing world, creating sustainable products and opportunities for more than 70,000 farmers and the consumers we serve across the globe. Bunge Loders Croklaan is a leading global producer and supplier of plant-based specialty oils and fats for the food manufacturing and nutrition industry.

# Portfolio for the nutrition industry

## Complete lipid solutions for infant, medical and sports nutrition

Lipids are a core ingredient in healthy diets and essential sources of energy. The right nutritional balance can only be achieved through a careful selection of oil and lipid ingredients. Our portfolio includes oils from multiple plant sources, nutritional lipids and specialty ingredients to support balanced diets for all stages of life.

### Our portfolio delivers benefits in the following application areas:

- Term and pre-term infants with or without special medical needs
- Young and adult individuals with special nutritional needs either at home or at the hospital
- Professional or amateur athletes optimizing their physical performance
- Elderly individuals seeking a healthy nutritional balance or improved energy intake

### Our nutrition portfolio includes:

**XtraCare oils**

- A full range of seed and tropical oils available for customers to blend in-house
- Oil blends to match customer specifications
- Organic options available

**Betapol nutritional lipids**

- Betapol infant nutrition OPO and OPL provide the highest SN-2 palmitate level in the market (up to 70%)
- Portfolio includes custom oil blends, powdered blends and low melting point variants
- Organic options available

**NuliGo nutritional lipids**

- Structured MLCTs (medium- & long-chain triglycerides)
- Deliver medium-chain fatty acids to muscle

✔  
Organic options  
available



# XtraCare oils

Complete range of oils and custom blends for multiple nutrition applications

Bunge Loders Croklaan is one of the few companies to offer a combination of quality oils, contaminants control and blending capabilities on a global scale. Our customers can, therefore, liaise with a single partner of choice instead of multiple providers for a reliable and trustworthy supply of lipid solutions.

We offer a full range of oils for customers to blend in-house or as ready-to-use blends.

## Xtracare oils portfolio

Oils	Organic
<ul style="list-style-type: none"><li>• Soy*</li><li>• Sunflower</li><li>• High oleic sunflower</li><li>• Canola/rapeseed*</li><li>• Corn*</li><li>• Palm</li><li>• Palm kernel</li><li>• Coconut</li><li>• Flaxseed</li><li>• Safflower</li></ul>	<ul style="list-style-type: none"><li>• Sunflower</li><li>• High oleic sunflower</li><li>• Canola/rapeseed</li><li>• Palm</li><li>• Coconut</li></ul>
*GM and non-GM available	



Global presence



Contaminant control



Full range of oils



**Betapol<sup>®</sup>**

## Betapol nutritional lipids

### Solutions for the best start in life

All mothers want to give their babies the best start in life, preferably with breast milk. When breastfeeding is not an option, choosing the best infant formula is key for healthy growth and development.

Fats are an essential nutrient for the baby. Although mother's milk contains only 3-4% fat, fat makes up to 50% of a baby's energy intake. Besides being a key energy source, the molecular structure of fats present in mother's milk plays an essential role in nutrient absorption and gut health.

Over 30 years ago, in our quest to make infant formula closer to nature, we studied the molecular structure of mother's milk fat and invented an OPO nutritional lipid derived from plant oils. We called it Betapol. Unlike the structure of triglycerides containing palmitic (P) and oleic (O) acids in vegetable oils, Betapol's OPO structure mimics one of the most prevalent triglycerides in mother's milk. It has also proven clinically beneficial for the baby. Hence, since coming to the market Betapol became the ideal choice to develop infant formulas that are closer to nature.



Improved energy intake



Reduced constipation



Increased bone mineral density



Heathy gut bacteria



Less crying



Better sleep at night



Improved fine motor skills



# Betapol nutritional lipids

## Betapol Plus: the next generation OPO

Following the success of Betapol, in 2019 we revolutionized the market again with Betapol Plus, the next generation OPO. It is designed to match mother's milk fat more closely, with the highest levels of OPO/SN-2 palmitate available in the market.

Today, our next generation Betapol Plus offers the best alternative to reach the naturally-occurring 60-75% SN-2 palmitate levels found in mother's milk. Betapol Plus blends offer up to 60% SN-2 palmitate and Betapol Plus base provides 70% or more.

### Difference in fat structure

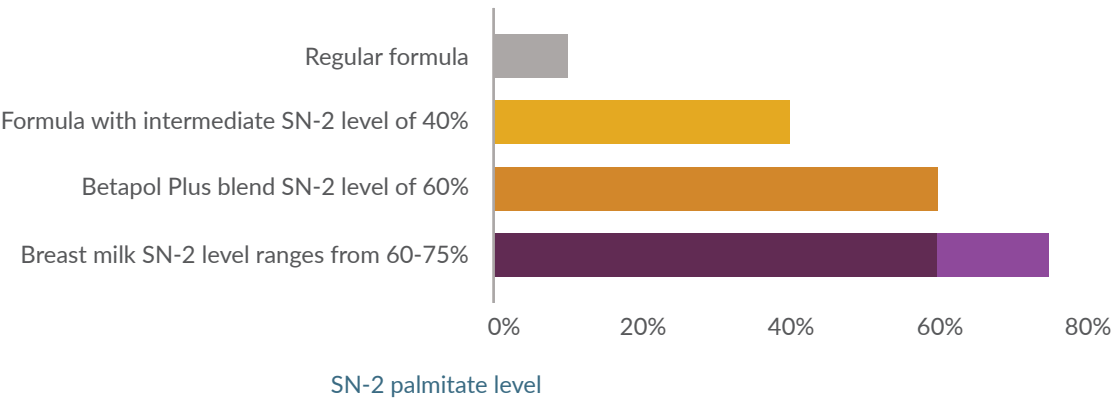


Typical structure in conventional vegetable oil blends

Human Milk Fat & Betapol

Breast milk fat and Betapol have palmitate in SN-2 position

### Matching mother's milk fat level



## Betapol Select adapts to the natural variations in mother's milk

Our expertise in lipids and research in infant nutrition made us understand that mother's milk contains macronutrients and micronutrients that not only vary diurnally within feeds but also regionally. This regional change is influenced by the mother's origin and diet. Research proves that the fat composition of milk from Chinese mothers contains a higher level of linoleic acid compared to other regions. Our Betapol Select mimics the fat composition of Chinese mother's milk by introducing an OPO-OPL combination.

### Betapol nutritional lipids portfolio

Product	SN-2 level	Fat composition	Organic
Betapol B-55		OPO	✓ New!
Betapol Plus B-65		OPO	✓ New!
Betapol Plus B-70		OPO	✓ New!
Betapol Plus B-75		OPO	
Betapol Select B-65		OPO-OPL	
Betapol Select B-75		OPO-OPL	
Betapol Select B-65 ALN		OPO-OPL-OPLn	

✓ Organic options available

EU: Council Regulation (EC)  
No 834/2007



China: GB/T 19630-2019





## NuliGo lipids: a nutritional game-changer

The revolutionary new science-based way to give muscles exactly what they need, when they need it.

NuliGo lipids are perfect for



Athletes and fitness enthusiasts  
Energy | Performance | Endurance



Older adults  
Strength | Stamina | Recovery



Individuals focused on well-being  
Lifestyle | Nutrition | Activity

## Perfect for today's nutritional products

NuliGo lipids improve the functionality and marketability of your formulations.



Powdered drinks



Bars



Supplements



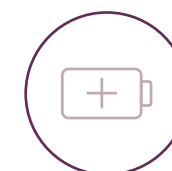


# Go Further, Faster, Longer

NuliGo nutritional lipids are innovative functional ingredients that deliver energy directly to muscles. Ideal for the sports nutrition and active aging categories, NuliGo lipids support:

Muscle health | Muscle building | Muscle maintenance | Muscle recovery

## Consumers are drawn to NuliGo because it gives them:



Energy to keep going, whether they're exercising or leading an active life



Less stiffness and soreness after exercise



The ability to become—and stay—strong

## How it works

NuliGo nutritional lipids provide energy in a completely unique way by going, via the circulation, straight to muscles. In the muscle, NuliGo's balanced energy supply spares amino acids for protein synthesis. Better protein synthesis with less protein degradation means stronger muscles for longer.

## NuliGo nutritional lipids are what consumers have been waiting for

Consumers are excited about all that NuliGo lipids can deliver for them. In our consumer panels, they tell us that NuliGo lipids “cover so many issues” that are top of mind for them and they call the approach of direct-to-muscle energy delivery a “great idea.”

## Easy to incorporate



Clean taste



Easy dispersal

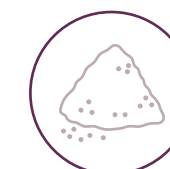


No effect on texture or color

## Available formats



Oil



Powder  
(70% oil content)





# Sustainability

## Responsibly grown ingredients that support our customers’ values around the world

We serve our customers best by sourcing responsibly produced and traceable raw materials from partners we know and trust. The oils, fats and specialty ingredients we provide are responsibly grown, making sure they support the commitments you have made to your customers and stakeholders.

Our approach to sustainability is robust in delivering demonstrated support and impact at the supplier, landscape, social and labor levels. We quantify and verify the sustainability of our supply base to ensure traceability and transparency at all levels.

Active monitoring of palm oil supply chain	Since 2017, we have been actively monitoring Peninsula and Sabah, Malaysia, using satellites. We currently monitor over 27 million hectares of forest for any change in land use.
Agroideal - growing soybeans sustainably	Land-use monitoring and planning tool, built in collaboration with industry stakeholders, that supports companies and farmers in the soybean value chain to promote sustainable agriculture practices.
Centerfield - promoting supply chain transparency and sustainable agriculture	A partnership between growers, food companies and Bunge in the U.S. with the goal to collect farm-level data to promote supply chain transparency and sustainable agriculture. Centerfield crops include: high oleic soy and canola, conventional and non-GMO corn and non-GMO soy.



Highly traceable and transparent supply chains



70,000+ dedicated farmers and growers



Certified sourcing



Satellite technology to monitor deforestation



Growers engagement programs in place supporting sustainable agriculture





## Quality

### Safeguarding quality from seed to customer

Over the years, we have taken increasing control over every aspect of our supply chain – from seed to customer. Our focus on quality and safety covers all areas of our company.

We work relentlessly to optimize each aspect of our operations, from our analytical capabilities to our contaminant control and engineering solutions. To protect your valuable brands, we keep to the highest quality and food safety standards, aiming to meet and exceed your expectations.

Front runner in contaminants mitigation and analysis.  
Our method to analyze 3MCPDe is a certified  
industry standard (ISO/NEN)<sup>1</sup>.

<sup>1</sup> Zwagerman, R. and Overman, P. (2019), Optimized Analysis of MCPD- and Glycidyl Esters in Edible Oils and Fats Using Fast Alkaline Transesterification and <sup>13</sup>C-Correction for Glycidol Overestimation: Validation Including Interlaboratory Comparison



*Let's create together*



BUNGE

Loders Croklaan

[bungeloders.com](http://bungeloders.com)