



Betapol[®]

Closer to nature
every day



Organic options available!



BUNGE

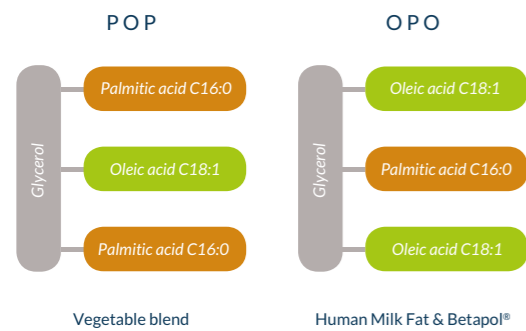
Loders Crokiaan

The science of OPO

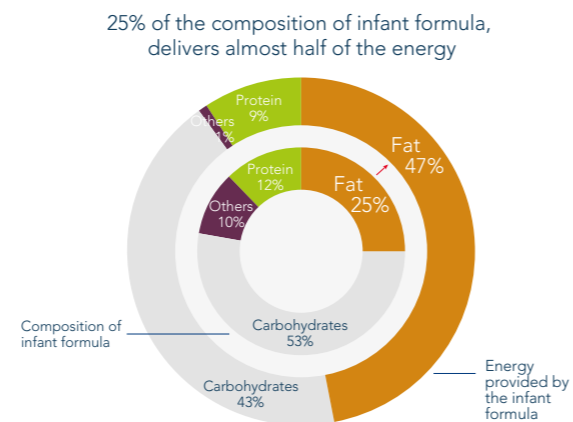
Breastfeeding is an important bonding experience and provides babies with the best start in life. When breastfeeding is not an option, choosing the best infant formula is key for healthy growth and development. While mother's milk fat contains only 3-4% fat, it makes up 50% of a baby's energy intake. Betapol is the ideal choice for infant formula because it mimics the fat composition and unique OPO fat structure of mother's milk.

The composition and structure of human milk fat is vital to the health and nutrition of babies. The fat in human breast milk is in the form of fork-shaped triglycerides. In human milk fat, palmitic acid is bound to the triglyceride's SN-2 position. The SN-1 and SN-3 positions are occupied by oleic acid. This unique OPO fat structure allows babies to absorb more palmitic acid and calcium which contributes to significant nutritional benefits:

Difference in fat structure



The importance of fat



The benefits of OPO

Multiple clinical studies of infants fed with different OPO concentrations suggest that the effect for both fat and calcium absorption increases when higher levels of SN-2 are present in the formula. This supports the suggestion that closer mimicking of the fatty acid profile of breast milk shows increased effects of the benefits that OPO brings:

- Improved energy intake
- Reduced constipation
- Increased bone mineral density
- Healthier gut bacteria
- Less crying
- Better sleep
- Positive for development

Closer to nature every day

Our scientists are continuously developing our Betapol portfolio to mimic mother's milk fat as close as possible. Not only are we the first company providing a 75% SN-2 level to *really match* the palmitic acid level in mother's milk fat with **Betapol Plus**, we also integrate regional differences into our

portfolio by introducing **Betapol Select**, the product that contains OPL, tailoring to Chinese mother's milk fat. The most recent portfolio expansion is the delivery of **Certified Organic OPO options!**

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

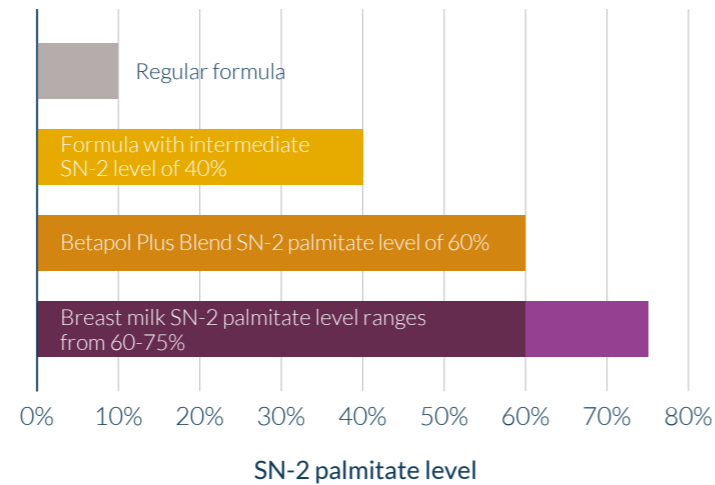
Betapol® Plus:

The next generation of Infant Milk Formula

The new Betapol Plus range combines the benefits of OPO with the highest SN-2 palmitate levels available on the market. Introducing the new standard. Designed to match mother's milk fat more closely.

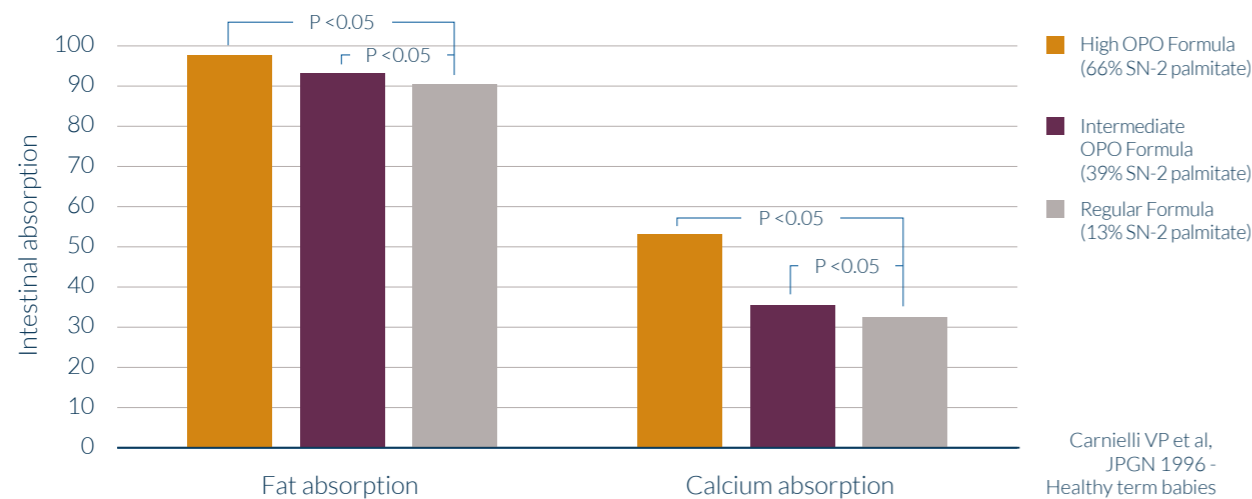
The SN-2 palmitate level of mother's milk fat ranges from 60% to 75%. Today our next generation ready-to-use Betapol Plus Blend 60 offers an SN-2 palmitate level of 60%. This gives you the opportunity to provide mothers with the best possible alternative for their babies.

SN-2 palmitate level



Higher SN-2 palmitate levels show increased nutrients' absorption

Higher SN-2 palmitate levels bring significantly higher absorption of fat and calcium



Betapol® Select:

Premium infant lipid solution that closely mimics the natural balance in Chinese mother's milk fat

Betapol® Select is a premium lipid ingredient for infant milk formula that is inspired by natural variations in the composition of human breast milk. Betapol® Select is Bunge Loders Croklaan's first product line that mimics the fat composition of Chinese mother's milk.

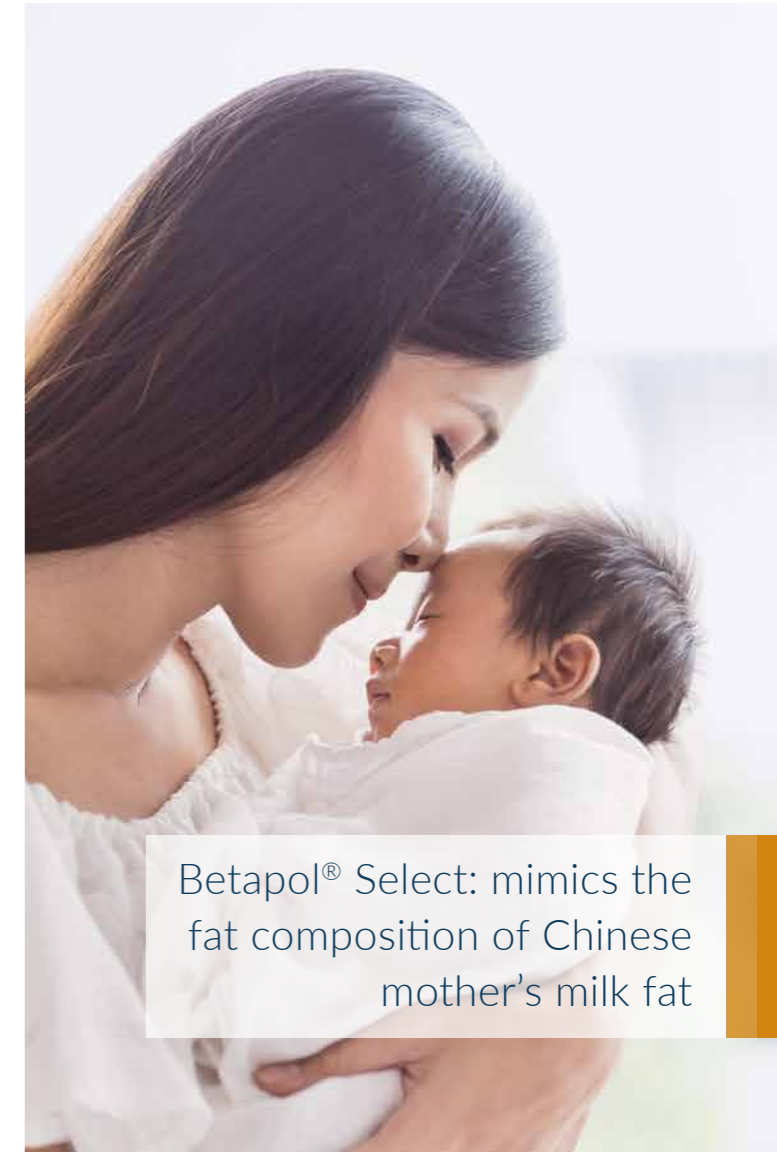
Research in infant nutrition made us understand that macronutrients in human breast milk vary – not only with lactation stages, diurnally, and within feeds, but also regionally. These regional differences are influenced by the mother's origin and diet. Our new solution combines the benefits of Betapol® with the OPL and OPO balance naturally present in Chinese mother's milk fat.

The right OPL-OPO balance

OPL and OPO are uniquely structured lipids that are naturally present in mother's milk. Palmitic acid in the center SN-2 position has been clinically proven to have multiple benefits.

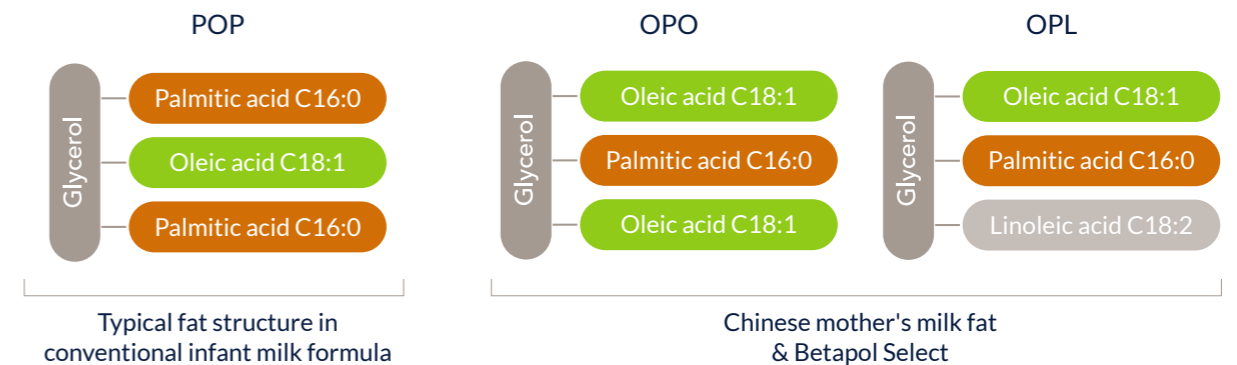
Regional differences in mothers' milk

Recent research into mother's milk has shown regional differences. In Western mothers' milk fat, OPO is the most prevalent triglyceride, followed by OPL. In Chinese mother's milk, it is the other way around: the fat composition contains a higher level of OPL, followed by OPO. To mimic this balance, Betapol® Select provides a high level of SN-2 palmitate with the right combination of OPL and OPO triglycerides.



Betapol® Select: mimics the fat composition of Chinese mother's milk fat

Difference in fat structure



Innovation today and tomorrow

Together with established infant nutrition authorities in Europe, we have committed to a major long-term research program to identify and substantiate new Betapol benefits. These studies have indicated that the high SN-2/OPO structure may also lead to a positive impact on brain functionality and a healthy weight as a result of improved fat distribution. These SN-2 fat innovations will enable us to extend the Betapol portfolio and further develop new OPO products and product combinations adding value to your brand.



Healthy weight



Brain functionality

Proven by science

Carnielli
"It has been proven that infant formulas containing Betapol are much more easily absorbed by infants. Research also shows that Betapol protects infants from the pain and discomfort of constipation, while improving calcium intestinal absorption."



Virgilio P. Carnielli, MD, PhD, Professor of Neonatal Pediatrics, Polytechnical University of Marche. Director of Neonatal Medicine, G. Salesi Hospital, Ancona, Italy.

Let's create together

Bunge Loders Croklaan

Betapol® was developed by Bunge Loders Croklaan as the very first fat blend to mimic human milk fat for infant formula. Bunge Loders Croklaan is a leading global producer and supplier of sustainable plant-based lipids for the food manufacturing industry. It operates as the global B2B edible oils business of Bunge (NYSE:BG).

Enabling your brand

Betapol has established an extensive safety record in Europe and numerous scientific studies have substantiated its benefits. That is why it is widely trusted as the standard for OPO fats. And because we can support our products with solid scientific data, so can you.

Impeccable service

We are eager to be a growth enabler for our customers. Our goal is the same as yours – providing mothers with the best possible alternative to breast milk. Our application and technical support team is always willing to help you to:

- Identify the right Betapol product for you: Betapol offers formula producers the closest match to mother's milk. This specialty structured lipid can be provided alone or as an ingredient in different blends, depending on your specific requirements.
- Build market successes: When you sell a product designed to improve human health, you are making big promises which all need to be clear, transparent and appropriate.
 - Our legal department is ready to help you navigate and comply with local and global regulations.
 - Our team of scientists will help you identify the most powerful market-specific claims for your product, to ensure market success.
 - You can rely on our sales and customer service teams to provide the best service and support in order to ensure an impeccable sales experience.



First, we invented the process behind Betapol's unique OPO structure

In 2019 we launched Betapol Plus, revolutionizing the market again with the highest SN-2 level available

In 2020 we developed Betapol Select, the first OPL in the market to closely mimic Chinese mother's milk fat

In 2021 we launched the first Betapol Organic!

Let's create together



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