



Akonino®
– The natural
choice for healthy
development

The Co-Development Company

AAK



Natural for infants, natural for you

An infant can get all of its nutrition from a single trusted source. With Akonino lipid ingredients, you can also be certain of getting everything you need – simply and securely – The Akonino solution.

In addition to lactose and proteins, human breast milk supplies rich fat that contains 50% of an infant's dietary calories. More than just energy, the fat is the source of essential fatty acids that can't be synthesized by the human body.

To come as close to breast milk as possible, your formula needs the right fatty acid content. This can mean blending as many as five different oils, which is a complex process better entrusted to AAK.

The ideal combination

AAK is a world-leading supplier of value-adding specialty fats, derived from natural, vegetable sources. Our Akonino lipid ingredients, which are custom-designed for infant nutrition, build on over 140 years of refining experience.

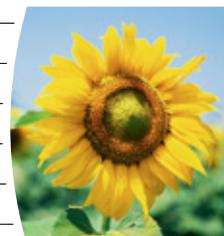
With the right materials and processing, the Akonino solution can fulfill virtually any fatty acid specification. Antioxidants such as mixed tocopherols, α -tocopherol, ascorbyl palmitate and lecithin can also be added upon request.

Security from start to finish

The raw materials for the Akonino solution come from audited and approved suppliers and like your finished product, their quality is regularly monitored. AAK production units are certified according to international standards and our gentle yet accurate processing ensures neutral taste, oxidation stability and the elimination of contaminants.

Akonino® Raw materials

- ◆ Coconut oil*
- ◆ Palm kernel oil
- ◆ Palm oil and palm oil fractions*
- ◆ Rapeseed oil*
- ◆ High-oleic rapeseed oil
- ◆ Sunflower oil*
- ◆ High-oleic sunflower oil*
- ◆ Soybean oil*
- ◆ Corn oil
- ◆ MCT oils



*Organic versions available as well

A close-up photograph of a baby with light brown hair and blue eyes, wearing a blue patterned onesie. The baby is holding a blue baby bottle. The image is framed by a large white circular shape on the left side.

Akonino® – Naturally good business

A mother's milk delivers everything a child needs for healthy development, with natural ease and efficiency. Using Akonino lipid ingredients from AAK, your formula can do the same. Custom-designed Akonino solution offers unique properties and the fatty acids you require in exactly the proportions you need. Extracted from natural sources and blended with exceptional precision, they arrive fresh at your facilities at the very same rate you consume them.

That means no struggling to match specifications, plus less capital bound in storage tanks, mixing equipment and complicated logistics. What's left is an exceptional, consistent product that lives up to your brand promise – as naturally as feeding a baby.



Healthy children, healthy business

Proper nutrition gives a child the building blocks of good health. Akonino lipid ingredients act in a similar way, keeping your business strong and making resources available for its development.

With their natural composition and unique characteristics, Akonino solution makes your formula a more suitable substitute for breast milk. What's more, they economize key aspects of your production. AAK takes on much of the hassle of supply and demand.

Specifications guaranteed

Satisfying your expectations and those of regulating authorities is critical. AAK meets your specifications in full, each and every time your Akonino lipid ingredient is delivered. This saves you the work of optimizing and safeguarding quality. We manage the supply chain and we harmonize variations in nature's raw materials. Our own purity standards often surpass the legal requirements and our quality assurance is verified by third-party auditors against international standards.

Freshness is quality

AAK further promotes quality by matching deliveries to your rate of consumption. Since Akonino lipid ingredients arrive fresh and at the right pace, you avoid storage times that can decrease shelf life.

Such freshness is difficult to obtain by blending yourself. Individual oils are depleted at different rates, depending on their role in your formula. Those used in smaller quantities tend to be stored for much longer, which increases the risk of oxidative breakdown.

Simplicity is value

Logistically, the Akonino solution, consisting of one lipid ingredient, has significant advantages over multiple of oils.

Akonino® – Custom-designed ingredients

- ◆ Unique advantages
- ◆ Guaranteed specification
- ◆ Better quality
- ◆ Better addition of antioxidants
- ◆ Simplified planning
- ◆ Improved logistics
- ◆ More available capital

AAK food safety and quality

- ◆ Careful supplier assessment
- ◆ Gentle and optimized refining
- ◆ HACCP and additional standards
- ◆ Monitoring program
- ◆ Supply chain management
- ◆ Documentation

With only one turnover rate to manage, you can ensure full truckloads and fewer deliveries, which reduces transport costs and environmental impact.

On site, there's also less to plan and take care of. Instead of several tanks for several components, you can have a single tank for your Akonino ingredient.

A better investment

When you use the Akonino solution, the money you have can be spent where it does most good. Instead of tying it up in storage and logistics, it can be used to promote your formula – or even to develop new ones.





Developing bodies, developing ideas

Experienced guidance is vital as a child grows and explores. In your own pursuit of new possibilities, AAK can provide insights as well as ingredients – gained through more than a century of work with high-quality specialty fats.

The Akonino solution is unique in its breadth and capabilities and we can assist you in making the most of it. AAK can provide the resources to move you forward. Through our co-development approach we support you through your projects, acting as a sounding board or as a full development partner. From custom-designing your Akonino lipid ingredient to optimizing the properties of your formula as a whole, AAK can provide the resources to move you forward.

A unique proposition

The Akonino portfolio can be utilized in countless ways. Depending what you want to achieve with your formula, there are many different options to choose from. These include not only the vegetable oils you'd expect, but also many special options, for example:

- ◆ **Akonino Organic:** Most of our oils are available in organic versions, with supply and production strictly regulated by an independent certifying body. Custom-designed Akonino Organic lipid ingredients are an excellent way of making your formula more environmentally sustainable, as well as more attractive to today's health-conscious customers.
- ◆ **Akonino MCT:** MCT oils consists of short-chain fatty acids (C8, C10) that are an efficient source of energy for preterm infants.
- ◆ **Akonino ELIP:** Long chain polyunsaturated fatty acids in phospholipid form, derived from egg yolk to support optimal development. In addition Akonino ELIP naturally contains choline, an important ingredient for healthy development of infants.
- ◆ **Akonino DHA:** A purified source of DHA from vegan approved algae oil.

Knowledge at your service

The ingredients themselves are just one aspect of the Akonino offering. In choosing Akonino, you gain a powerful partner in AAK.

AAK's body of knowledge extends beyond lipids to cover processes, regulations and more. Through our contact with our customers worldwide, as well as our cooperation with research institutes and governmental authorities, it continues to grow. As your partner, we put all of our knowledge to work. No matter how big or small the challenges you face, we're easy to contact and ready to take an active role in solving them.

Welcome to the AAK ACADEMY™

As an Akonino customer, you belong to a strong global network. One benefit of that network is the AAK ACADEMY, to which you receive preferred access.

The AAK ACADEMY provides advanced training in lipid technology that makes it easier to control fat functionality in your end product. In addition to broader segment-based courses, the academy can arrange tailor-made courses for individual companies.



Akonino® Organic raw material options

- ◆ Coconut oil
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- ◆ Sunflower oil
- ◆ High-oleic sunflower oil
- ◆ Soybean oil
- ◆ Rapeseed oil



Sample fatty acid composition of a typical Akonino® ingredient

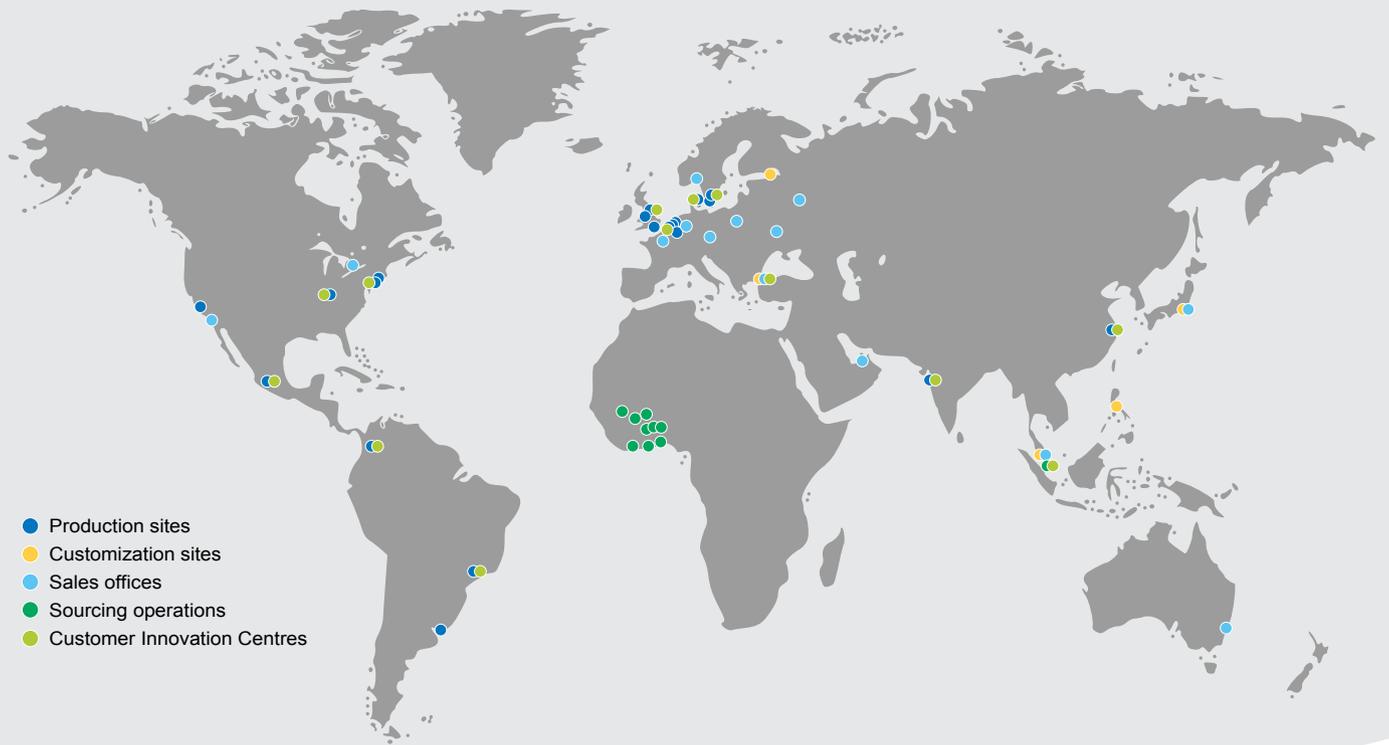
Fatty acid profile (%)	Breast milk	Akonino ST
C12	6.2	7.0
C14	7.8	3.0
C16	25.0	21.0
C18:0	8.7	3.0
C18:1	35.0	38.0
C18:2	11.0	15.0
C18:3	1.2	2.0

Legal requirements for infant nutrition

According to EC directive 2016/127/EC*, fats for use in both infant and follow-on formulas must comply with the following criteria:

- Fat content of reconstituted product: between 1.1 and 1.4 g/100 kJ
- Content of α -linolenic acid: between 12 and 24 mg/100 kJ
- Linoleic acid content: between 120 and 300 mg/100 kJ
- Docosahexaenoic acid content: between 4.8 and 12 mg/100 kJ
- LCP content: maximum 3%, where of 1% from omega 3 and 2% from omega 6
- Content of EPA must be lower than DHA
- Trans fatty acids: maximum 3% of total fat content
- No use of sesame seed or cotton seed oil
- Erucic acid: maximum 0.4% of the total fat content

* Valid from 22 February 2020



We are AAK – the Co-Development Company

AAK in 60 seconds

We develop and provide value-adding vegetable oil solutions in close collaboration with our customers, enabling them to achieve long-lasting business results. We do so through our in-depth expertise in oils & fats within food applications, working with a wide range of raw materials and broad process capabilities.

Through our unique co-development approach, we bring together our customers' skills and know-how with our capabilities and mindset. By doing so, we solve customer-specific needs across many industries – Chocolate & Confectionery, Bakery, Dairy, Special Nutrition, Foodservice, Personal Care, and more.

AAK's proven expertise is based on more than 140 years of experience within oils & fats. With our headquarters in Malmö, Sweden, more than 20 production facilities and customization sites, and sales offices in more than 25 countries. Our more than 3,600 employees are dedicated to providing innovative value-adding solutions to our customers.

We are AAK – The Co-Development Company.

