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Holle baby food

Holle infant formulas

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1. Assortment overview

2. Legal information

Infant formula is regulated by law

- Regulation on food intended for infants and young children (EU 609/2013)
- Delegated Regulation EU 2016/127 on the specific compositional and information requirements for infant formulae and follow-on formulae

It defines exactly what the nutritional profile must look like and which ingredients may be used. These specifications are based on sound scientific findings from the last few decades. In addition to the mandatory nutritional profile, there are also voluntary ingredients that 'may' be added. Their benefit for the infant has not yet been 100% proven, so these additives are voluntary and not mandatory.

There are manufacturers who adhere to this logic and develop recipes that are as pure and natural as possible (such as Holle). Other manufacturers add other ingredients.

For example: taurine, GOS/FOS; HMOs (human milk oligosaccharides)

3. Recipes : based on cow's and goat's milk

- ✓ **Demeter** as a USP
- ✓ Holle is the **first Demeter producer** of infant milk formula and offers the only milk formula made from goat's milk in Demeter quality.
- ✓ The organic milk formula contain valuable cow's or goat's milk in Demeter quality. They impress with their **natural flavour** and **ease of preparation**.
- ✓ Our milk formula of the highest organic quality reliably provides babies with **all the nutrients they need for healthy development**.

3. Recipes – the milk formulas

Organic infant formula

- First Infant milk (PRE & 1):
  From the first day when (full) breastfeeding is not possible
  Provides the child with all important nutrients

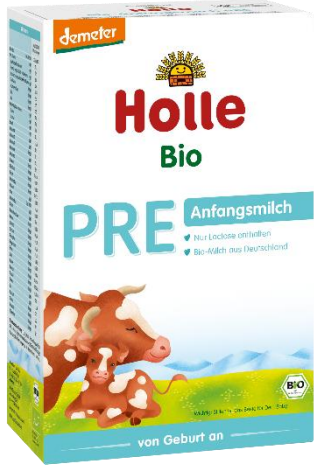
- Follow-on milk (2 & 3):
  From the second half of life with an adapted nutrient content
  Adapted to the needs of the complementary feeding phase (at least 2 meals per day)

- Growing Up Milk (4):
  From 1st year

3. Recipes – the milk formulas– from cow`s milk

Organic PRE / 1 formula milk - from birth to the first year of life:

- Sole feeding from birth or after breastfeeding
- Can be combined with complementary foods (for example cereals)
- Sweet flavour due to higher lactose and milk fat content
- Contains only lactose as the only carbohydrate (like breast milk)
- Addition of DHA und ARA



3. Recipes – the milk formulas– from cow`s milk

Organic follow-on milk 2 - after the 6th month:

- As part of a diet with complementary foods
- Energy content and basic composition similar to Organic Infant Milk 1 - BUT adapted to the nutrient intake during the complementary feeding phase
- Carbohydrates: maltodextrin and additional starch for longer-lasting satiety
- Addition of DHA

3. Recipes – the milk formulas– from cow`s milk

Organic follow-on milk 3 - from the 10th month:

- As part of a diet with complementary foods
- For the increasing nutritional requirements of older infants
- Carbohydrates: maltodextrin and additional starch for longer-lasting satiety
- Addition of DHA

3. Recipes – the milk formulas– from cow`s milk

Organic growing up milk 4 - from the 12th month:

- Encore as part of the family diet
- Supply with the optimum amounts of protein and nutrients adapted to the needs from 12 months onwards
- Carbohydrates: maltodextrin and additional starch for longer-lasting satiety
- Addition of DHA

3. Formulas - Why infant formula based on goat's milk? The advantages

The reasons in favour of goat's milk-based infant formula speak for themselves:

- ✓ **The benefits of goat's milk :**
  - ✓ Better digestibility due to special protein composition, which can be better broken down by digestive enzymes
  - ✓ provides important short and medium-chain fatty acids & palmitic acids, which are very important for the baby
  - ✓ no palmoil
  - ✓ contains all the important vitamins, minerals and nutrients

- ✓ Holle has over 20 years of experience in the production of milk nutrition from goat's milk, making it a pioneer in this field

All information about Holle goat's milk at: https://www.holle.ch/ziegenmilch/

3. Recipes - The milk formulas - made from goat's milk

Why goat milk ?

- Alternative as a breast milk substitute:
  - Different flavour than cow's milk
  - If goat's milk is required
  - When an alternative to cow's milk is needed *
  - If a baby milk without palm oil is desired, as goat's milk fat in combination with vegetable oils provides the necessary amount of saturated fatty acids
  - Goat's milk contains a slightly different fat and protein composition than cow's milk

**Intolerances should always be discussed with a doctor or specialist*

3. Recipes - The milk formulas - made from goat's milk

Organic first Infant milk made from goat's milk - from birth to the first year of life:

- Alternative to infant milk made from cow's milk
- Suitable as a complementary food for partially breastfed infants
- Sole feeding from birth or after breastfeeding
- Can be combined with complementary foods
- easy to digest
- Creamy flavour thanks to the goat's milk fat
- Contains only lactose as the only carbohydrate (like breast milk)
- Addition of DHA from algae oil, ARA from M. Alpina oil, ratio of both 1:1

3. Recipes - The milk formulas - made from goat's milk

Organic follow-on milk 2 made from goat's milk - after the 6th month:

- Alternative to infant milk made from cow's milk
- As part of a diet with complementary foods
- Energy content and basic composition similar to organic starter milk 1 made from goat's milk - BUT adapted to the nutrient intake during the complementary feeding phase
- Carbohydrates: lactose, maltodextrin and additional starch for longer-lasting satiety
- Addition of DHA from algae oil

3. Recipes - The milk formulas - made from goat's milk

Organic follow-on milk 3 made from goat's milk - after the 10th month:

- Alternative to follow-on milk made from cow's milk
- As part of a diet with complementary foods
- For the increasing nutritional requirements of older infants
- Carbohydrates: lactose, maltodextrin and additional starch for longer-lasting satiety
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3. Recipes - The milk formulas - made from goat's milk

Organic growing up milk 4 - from the 12th month:

- Supply with the optimum amounts of protein and nutrients adapted to the needs from 12 months onwards
- Encore as part of the family diet
- Carbohydrates: lactose, maltodextrin and additional starch for longer-lasting satiety
- Addition of DHA

3. Recipes - The milk formulas - made from goat's milk

Organic infant formula made from goat's milk - Summary Especially suitable:

- For sensitive infants (can manifest itself in digestion, skin problems, etc.)
- Goat's milk can be an alternative if you are intolerant* to certain components of cow's milk
- If a natural alternative to cow's milk is desired

**Intolerances should always be discussed with a doctor or specialist*

3. Recipes

Advantages of goat:

- Special fatty acid composition (ARA + DHA, whole milk, no palm oil)
- Optimum ratio of omega 3 to omega 6 (DHA* and ARA*)2 are long-chain polyunsaturated fatty acids
- DHA & ARA, are found in breast milk and play an important role in child development: Important for visual, cognitive and psychomotor development
- By adding both LC-PUFA, similar concentrations in the child's organism as in breastfed infants 2, 3

Advantages of an infant milk from goat whole milk:

- more complex fatty acid profile, similar to that of breast milk, compared to infant formulas, which only contain vegetable oils as a fat source
- higher levels of short and medium-chain fatty acids. These are broken down and absorbed more quickly. As a result, better digestibility and faster energy supply can be achieved
- By using vegetable oils (sun and rapeseed) and goat's milk fat, unsaturated fatty acid contents comparable to those of breast milk are achieved.

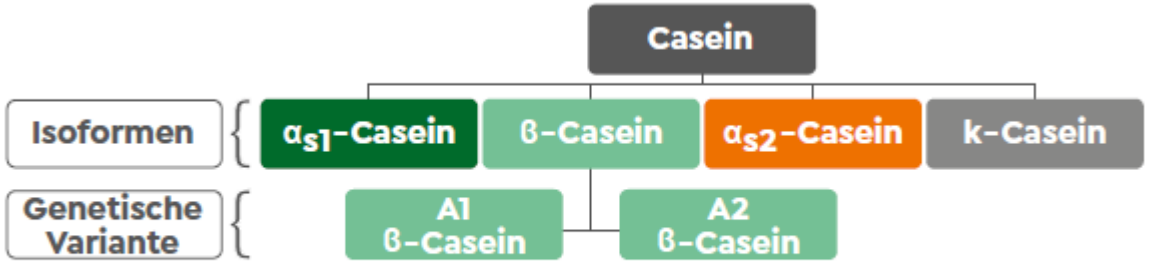
•**Without palm oil**

•By using whole goat's milk, we can dispense with palm oil in the infant formula, as whole goat's milk also provides palmitic acid, a long-chain saturated fatty acid that is predominant in breast milk and is important for development

3. Recipes - Goat

Advantages Goat :
Goat's milk is easier to digest due to its special protein composition:
Beta casein consists of two forms: A1 and A2.

- The difference lies in the amino acid in position 67.
- Like breast milk, A2 has proline at position 67 of the amino acid chain, while the A1 variant has histidine at position 67
- In A1 milk, β-casomorphin-7 (BCM-7) is released during digestion; BCM-7 is said to have negative effects on the organism 5
- No BCM-7 is released in A2 milk, which means that the milk can be perceived as better tolerated 5



3. Recipes

- Infant formula:
  - Highly complex product
  - Highly processed

- Differentiation from other manufacturers :
  - Only additives that are required by law
  - Their effect is therefore scientifically proven
  - Demeter raw materials for cows and goats
  - Algae oil instead of fish oil (more sustainable)
  - <u>Goat:</u> no palm oil, as whole milk can be used and goat fat contains sufficient palmitic acid

Zutaten

Entrahmte Milch**[1], Molkenerzeugnis* (teilentmineralisiertes Molkenpulver), pflanzliche Öle* (Palmöl*[3], Sonnenblumenöl*, Rapsöl*), Maltodextrin*, Stärke*, Calciumcarbonat, Kaliumchlorid, Öl aus der Mikroalge Schizochytrium sp.[2], Vitamin C, Calciumsalze der Orthophosphorsäure, L-Tyrosin, Kaliumcitrat, Natriumchlorid, L-Tryptophan, Eisensulfat, Zinksulfat, Vitamin E, Magnesiumcarbonat, Niacin, Kupfersulfat, Pantothensäure, Vitamin A, Vitamin B_1, Vitamin B_6, Mangansulfat, Kaliumjodid, Folsäure, Vitamin K, Natriumselenit, Vitamin D, Biotin, Vitamin B_{12}

3. Recipes

Product overview

The only one in Demeter quality

		COW				GOAT			
Product		First Infant Milk Formula	Follow-on Milk Formula 2	Follow-on Milk Formula 3	Growing-up Milk 4	First Infant Milk Formula	Follow-on Milk Formula 2	Follow-on Milk Formula 3	Growing-up Milk 4
Age		from birth	after 6 months	from 10 months	from 12 months	from birth	after 6 months	from 10 months	from 12 months
Ingredients	Milk	organic skimmed milk				organic full-cream milk			
	Carbohydrates	lactose	maltodextrine and starch			lactose	lactose, maltodextrine and starch		
	Source of DHA	algae oil				algae oil			
	ARA	✓	-			✓	-		
	ALA	✓				✓			
Protein composition		A1 and A2 beta-caseins				A2 beta-casein			

6. Manufacturing process

Holle organic infant formula is produced in a closed system using a high-tech process with spray technology. The milk ingredients are pasteurised beforehand.

Production steps:

Milk delivery --> cooling --> preheating --> mixing of the following ingredients : Fats and small fat components, automatic, recipe-controlled dosing; addition of liquid and solid raw materials, also automatic recipe-controlled weighing; further weighing and addition of minor components --> the mixture is transferred to a preheating vessel and preheated --> homogenisation and subsequent pasteurisation, spraying with hot air and automatic recipe-controlled dosing of the mineral mix, followed by filling and gassing of the infant milk powder with protective gas.

7. Quality & raw material

The Demeter difference: biodynamic farming

	demeter		COMMERCIAL
Animals have access to fresh air 365 days a year	✓	✓	–
100% organic feed	✓ At least 50 % Demeter feed, directly from the farm or locally sourced	✓ However, up to 5% conventional feed allowed	–
Antibiotics only in cases of illness	✓ Homeopathic treatment and natural remedies in case of illness, max. 3 times antibiotics per year	✓ Homeopathic treatment and natural remedies in case of illness, max. 3 times antibiotics per year	For factory farming regular use of antibiotics, higher susceptibility to disease due to high-performance breeding
Dehorning prohibited (sensory and communication organ)	✓	–	–
Only one form of agriculture on the farm allowed	✓ The whole farm must work according to Demeter standards	– Combination of organic and conventional agricultures possible	–

FAQ

Why do we at Holle not offer any special foods such as HA or Comfort or Anti-Reflux?

- HA foods are highly processed and modified due to the necessary process of protein cleavage. It is not possible to produce such a food and at the same time be compliant with organic legislation. For this reason, and because we currently only offer organic baby food, we do not have any HA milk formula in our range. It is also very niche.
- Speciality foods are also not possible under organic legislation. They come under a different regulation, Foods for Special Medical Purposes

Why does Holle use organic palm oil?

- Palm oil is the oil from the pressed pulp of the oil palm. Together with rapeseed and sunflower oil, palm oil is an indispensable component of the fat blend that we consciously use for our infant formula. As one of the oldest producers of Demeter-quality food, Holle takes its responsibility towards people and the environment very seriously. We therefore attach great importance to selected and compatible recipes and ingredients. Babies in the first year of life have special needs and require a high proportion of saturated fats. Breast milk also contains 51 per cent of these. Most vegetable oils consist mainly of monounsaturated or polyunsaturated fatty acids. There are very few that contain a high proportion of saturated fatty acids. Among these, palm oil occupies a special position, as other possible oils contain undesirable components. Palm oil, on the other hand, is much better tolerated by many children, mainly due to the fact that breast milk itself contains palmitic acid.
- In the future, we will no longer add palm oil to cow's milk formulas; the oil mixture will then only consist of sun and rapeseed.

Why is starch in follow-on milk useful?

- Starch is a complex carbohydrate that leads to longer satiety compared to lactose, as it is digested more slowly. The addition of starch makes the milk creamier. The energy content of follow-on formulae is very similar to that of the mother's milk and infant formula. With complementary foods, you also feed your child natural starch, primarily through the cereal components as well as fruit and vegetables.

Thank you