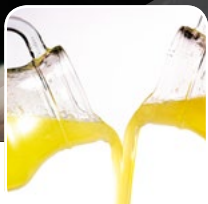


CALF MILK REPLACER MARKET



Natural Ingredients. Smart Solutions.

sonac

DARLING
INGREDIENTS

CALF MILK REPLACER MARKET

VALUABLE INGREDIENTS

Sonac processes raw materials of animal origin into valuable and essential ingredients like fats and specialties for applications in Calf Milk Replacers (CMR). Keywords for Sonac ingredients are:

- Natural
- Digestible
- Sustainable

ANIMAL FATS: MAJOR ENERGY SOURCE

Nutritional and technical characteristics of animal fats make it versatile. Animal fats are a major energy source and an indispensable and palatable element in commercial calf milk replacers. Sonac offers a complete range of animal fats.

SPECIALTIES: ALTERNATIVES TO MILK PROTEINS

The usage of animal proteins in calf milk replacers is very restricted in the EU. In addition to dairy and egg proteins only non ruminant gelatines and (non ruminant) hydrolyzed proteins are allowed. Sonac is offering these alternative sources of proteins and is constantly improving the product process in order to make these proteins even more suitable for calf milk replacer applications.

For the NAFTA market Sonac is able to offer porcine plasma powder for CMR application. Porcine plasma is considered as a high quality alternative for WPC or milk powder.



PRODUCTS

FATS

| | Max FFA (%) | Max peroxide (meq/kg) | Specific characteristics |
|---------------|-------------|-----------------------|----------------------------|
| Lard | 0,5% | 3 | Porcine origin, food grade |
| Lard | 1% | 3 | Porcine origin, food grade |
| Lard | 2% | 3 | Porcine origin, food grade |
| Tallow | 0,5% | 3 | Bovine origin, food grade |
| Tallow | 1% | 3 | Bovine origin, food grade |
| Tallow | 2% | 3 | Bovine origin, food grade |

SPECIALTIES

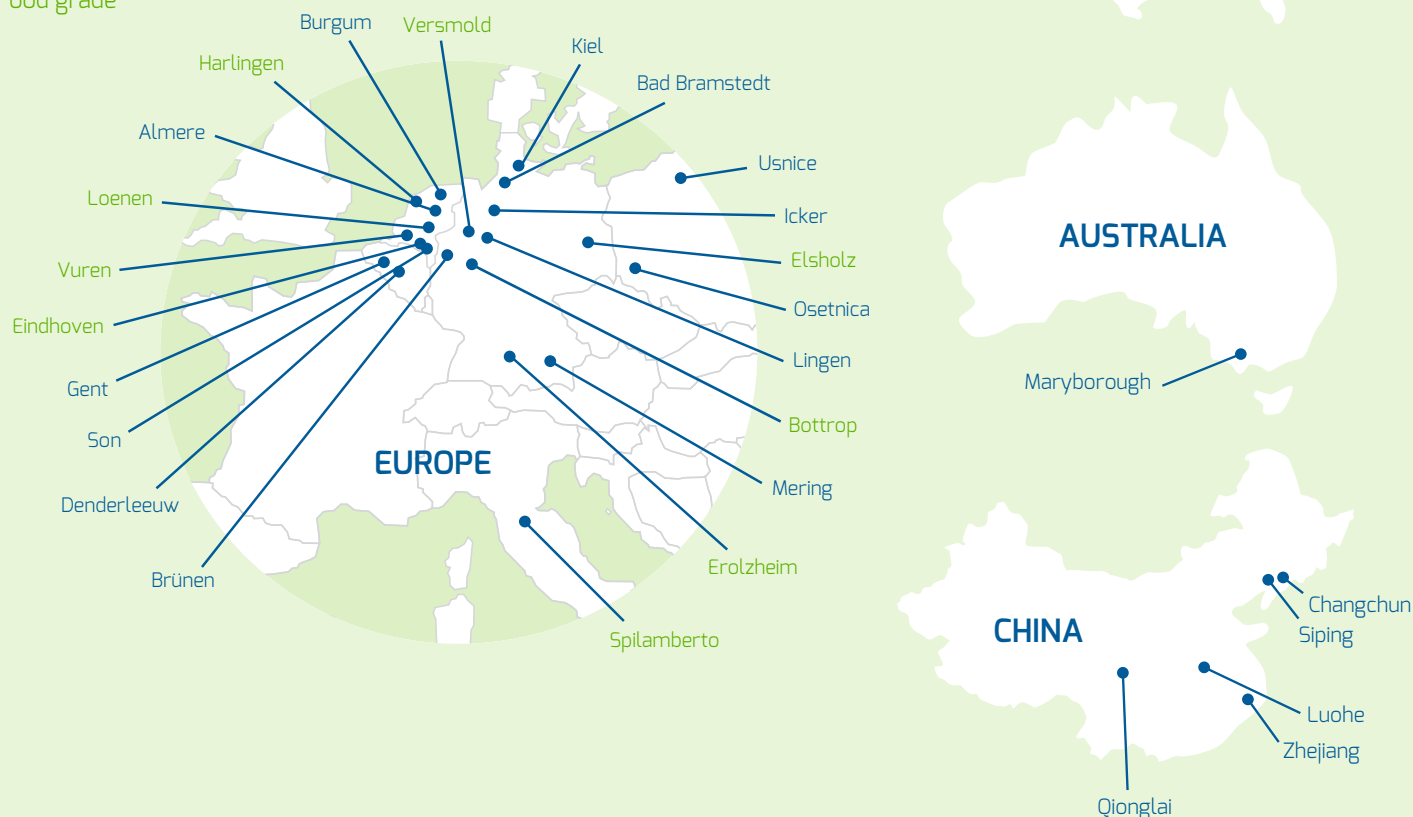
| | Crude Protein % | In vitro digestibility (%) | Specific characteristics |
|------------------------|-----------------|----------------------------|---|
| MucoPro | 72% | 99% | Hydrolyzed mucosa protein |
| BP 85P | > 85% | 99% | Non ruminant gelatin protein, 100 mesh |
| Hydro-P premium | > 90% | 99% | Hydrolyzed non ruminant gelatin protein |
| Gelko powder | 68% | 99% | Porcine origin, spray dried, hydrolyzed porcine protein |
| Innomax plasma | > 78%* | 99% | Porcine plasma |

*NAFTA market only

SONAC LOCATIONS

Petfood/feed grade

Food grade



For more information about our fats, proteins, minerals and specialties, please contact our advisors:

EMEA

| | | |
|--------------------------|-----------------------|--------------------------------|
| Ms. Patricia Kloosterman | + 31 (0)6 22 99 80 09 | patricia.kloosterman@sonac.biz |
| Mr. Taras Reshetiuk | + 48 (0)6 00 07 26 32 | tarasreshetiuk@sonac.biz |
| Mr. Louis van Deun | + 32 (0)4 98 17 54 18 | louisvandeun@sonac.biz |

NAFTA

| | | |
|---------------|-----------------------|-------------------------|
| Mr. Randy Ray | + 1 (0)8 59 80 17 557 | randy.ray@darlingii.com |
|---------------|-----------------------|-------------------------|

China

| | | |
|---------------|-----------------------|-------------------------|
| Mr. Randy Ray | + 1 (0)8 59 80 17 557 | randy.ray@darlingii.com |
|---------------|-----------------------|-------------------------|

Other Asia

| | | |
|--------------------|-----------------------|-------------------------|
| Mr. Jeroen Reijers | + 61 (0)4 85 75 29 32 | jeroenreijers@sonac.biz |
|--------------------|-----------------------|-------------------------|

Sonac is a leading manufacturer of reliable ingredients of animal origin. With an active R&D program, reliable processes and sustainable end products Sonac continuously adjusts to market needs. A good geographical spread of locations and a broad portfolio of fats, proteins, minerals and specialties make Sonac a trusted partner for many international producers in food, pet food, feed and fertilizers, worldwide. Sonac is part of Darling Ingredients.



For more information about our products please contact us:

PO Box 9 NL 5690 AA Son +31 (0)499 364 800 info@sonac.biz

sonac.biz

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DARLING
INGREDIENTS