

AQUA FEED MARKET



Natural Ingredients. Smart Solutions.

sonac

DARLING
INGREDIENTS

AQUA FEED MARKET

VALUABLE INGREDIENTS

Sonac processes raw materials of animal origin into valuable and essential ingredients like fats, proteins, minerals and specialties for applications in aqua feed. Keywords for Sonac ingredients are:

- Natural
- Digestible
- Sustainable
- Safe / Traceable
- Available

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 element in commercial aqua feed. Specially the fatty acid profile of poultry oil is very interesting for application in aqua feeds. Various trials recently performed by Sonac have reconfirmed the suitability of poultry oil in aqua feed. In addition animal fats are the most sustainable fat source available.

ANIMAL PROTEINS: INDISPENSABLE PIECES

Sonac's blood products and blood meals are excellent alternatives for fish meal. Our proteins are processed in an appropriate way in order to reach high digestibility levels. As from 1 June 2013 the EU has allowed the usage of pork and poultry meat meals in aqua feeds. These meals are nutritionally well balanced and digestible protein sources for aqua feeds. The P digestibility in animal proteins is also superior to vegetable proteins.

SPECIALTIES: FUNCTIONAL FEED INGREDIENTS

Sonac is a producer of specialized gelatin based pellet binders. Our Pro-Bind Plus is an effective, natural and low inclusion binder for aqua feeds. Hydrolyzation and concentration of pork mucosa results in a low molecular weight and highly soluble source of protein called MucoPro. This product is an ideal attractant in juvenile aqua feeds in general and shrimp feeds specifically. Other hydrolyzed proteins like Gelko, MPI and Hydro P Premium are also well suited for aqua feed applications.



PRODUCTS

FATS

	Max FFA (%)	Max peroxide (meq/kg)	Specific characteristics
Poultry oil	5% / 10% / 15%	6	Poultry origin
Pork fat	2% / 5%	3 / 6	Porcine origin
Lard	1% / 2%	3	Porcine origin, edible grade

PROTEINS

	Crude Protein %	In vitro digestibility (%)	Specific characteristics
Mixed blood meal	90%	95%	Bovine and porcine origin
Poultry blood meal [†]	90%	95%	Poultry origin
Pork blood meal [†]	90%	95%	Premium digestibility
Mixed hemoglobin	90%	99%	Bovine or bovine / porcine origin
Pork hemoglobin [†]	90%	99%	Porcine origin
Meat bone meal	50%	87%	Porcine / bovine origin
Poultry meat meal [†]	62 - 70%	87%	Poultry origin
Poultry meat bone meal	50%	87%	Poultry origin
Pork meal	50 - 63%	85%	Porcine origin
Feather meal [†]	85%	70%	Poultry origin

MINERALS

	Crude protein (%)	Ca (%) / P (%)	Specific characteristics
Delfos [†]	-	23% / 17%	Very high bio-availability
Calfos ^{†*}	10%	32% / 14%	High bio-availability

SPECIALTIES

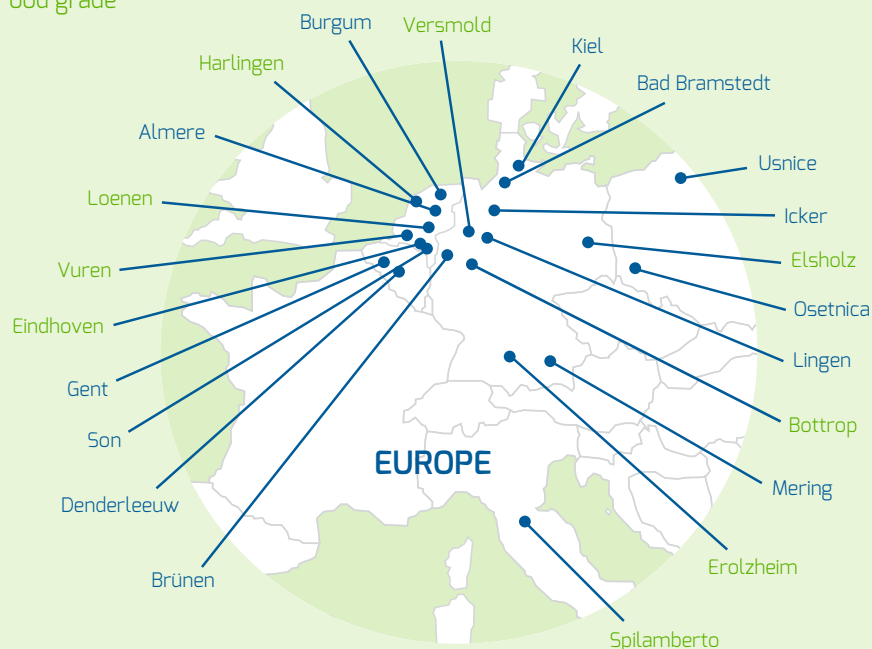
	Crude Protein %	In vitro digestibility (%)	Specific characteristics
Kerapro ^{†*}	85%	75%	Hydrolyzed feather protein
Pro-Bind Plus [†]	85%	99%	Gelatin based pellet binder
MucoPro [†]	72%	99%	Hydrolyzed mucosa protein
Gelko powder [†]	70%	99%	Spray dried
Proglobulin / Innomax [†]	78 - 80%	99%	Porcine plasma, low ash
Innomax MPI [†]	90%	99%	hydrolyzate, porcine origin

[†] = meets EU regulation 56-2013 * = meets EU regulation, but restricted usage

SONAC LOCATIONS

Petfood/feed grade

Food grade



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

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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:

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