



HydrolyFort – Plus

LIQUID FISH AND
SHRIMP HYDROLYSATES



SANITARY REGISTRY: SCI-R004534

Product description

HydrolyFort-Plus is a formula of liquid fish and shrimp hydrolysates, with a high content of bioactive peptides with low molecular weight (<1200 daltons) elaborated by enzymatic hydrolysis with controlled pH, time, and temperature from fresh byproducts of the fish processing Ecuadorian industries which process fish and shrimp for human consumption.

With the guarantee of Fortidex S.A., one of the main high biologic content marine protein producers in Ecuador.

Ingredients

- Fresh byproducts from the processing of fish and shrimp for human consumption, added with preservatives.
- Antioxidants free of ethoxyquin.
- Preservatives: phosphoric acid, organic acids: propionic, acetic, and butyric.



Functional properties

HydrolyFort-Plus is a balanced and synergic formulation of the nutritional and functional properties of hydrolyzed fish and shrimp, which benefits have been tested in national and international tasks and which are summarized in:

- Immunomodulating effect
- Antibacterial properties
- Increases the level of survival in the face of virus and bacteria attacks.
- Natural growth promoters.

Additionally, it complies with the attracting-palatability features of aquaculture food which, added to the high digestibility of the protein section, substantially improves food intake and FCR (Feed conversion ratio).

Specific applications

It is the most indicated modern tool to be used in strategies for formulation of aquaculture products with less fish meal: It partially, or totally, replaces fish meal, with a better cost-benefit relationship, and allows increasing vegetable protein.

Its potential for replacing fish meal lies in its content of Bioactive Peptides < 1200 Da (PBAs). There is a marked difference in the contents of PBA between fish meal and HydrolyFort-Plus.

The ratio of replaceability, based on functional properties, with fish meal is 1:3, which is equivalent to 1 kg of HydrolyFort-Plus replacing 3 kg of fish meal.

Recommendations of use

Up to 6% of the formulation may be used, but it highly depends on the technological level for application of liquid ingredients in the aquaculture foods' manufacturing process.



Technical Information

PROXIMAL ANALYSIS		
PARAMETER	UNIT	GUARANTEED VALUE
Humidity	%	Max 75.0
Protein	%	Min. 18.0
Fat	%	Max 3.0
Ashes	%	Max 5.0

PROTEIN QUALITY		
PARAMETER	UNIT	GUARANTEED VALUE
Protein Solubility	%	Min. 92.0
AMINO ACIDS PROFILE (% of product, as it is) (1)		
Arginine	%	Min. 0.10
Cysteine	%	Min. 0.25
Phenylalanine	%	Min. 0.10
Histidine	%	Min. 0.06
Isoleucine	%	Min. 0.10
Leucine	%	Min. 0.15
Lysine	%	Min. 0.15
Methionine	%	Min. 0.05
Tyrosine	%	Min. 0.05
Threonine	%	Min. 0.10
Tryptophan	%	Min. 0.20
Valine	%	Min. 0.15

FUNCTIONAL NUTRIENTS		
PARAMETER	UNIT	GUARANTEED VALUE
Low molecular weight peptides (2)	%	Min. 92.0 of soluble protein Min. 16.0 of total product
Chitin	%	Min. 1.5
Astaxanthin	ppm	Min. 30.0

MICROBIOLOGICAL QUALITY AND FRESHNESS		
PARAMETER	UNIT	GUARANTEED VALUE
Salmonella	CFU/gr	Absence in 25 gr
Enterobacteria	CFU/gr	Max. 300.0
TVN	mg/100 g	Max. 300.0
Specific Pathogens in Crustaceans (3)		No presence
pH (4)		Max. 4.5



- (1) The 10 amino acids essential for the nutrition of fish and crustaceans, plus 2 that are no essential.
- (2) Bioactive peptides and free amino acids, with a molecular weight less than 1200 dalton.
- (3) OMSA list, 2024 version.
- (4) Preservation of the product is guaranteed for a minimum of 6 months, after the production date.

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