

## SeaPro<sup>®</sup> 70

### Natural Pacific Whiting Meal

**SeaPro<sup>®</sup> 70** is a high-protein fish meal derived mainly from fresh cuttings of Pacific whiting (*Merluccius productus*) harvested and processed for human consumption. All processing is domestic and shore-based. All facilities are federally inspected. Commercial fisheries targeting Pacific whiting and other groundfish species on the West Coast of the United States conform to [Marine Stewardship Council](#) standards and reflect our “Sustainability Mission” to promote socially and ecologically responsible marine resource management practices worldwide. Utilizing only fish cuttings from established marine fisheries managed as sustainable natural resources is the best way to ensure our product is wholesome, renewable and consistently available.

**SeaPro<sup>®</sup> 70** is a consistent feed ingredient. Product specifications do not vary seasonally and each production lot is formulated and blended to standard nutrient levels. Our ingredient is a concentrated source of highly digestible fish protein and provides supplemental levels omega-3 fatty acids including docosahexaenoic (DHA) and eicosapentaenoic (EPA). It is stabilized with natural antioxidants. This premium product is ideal for improving feed protein quality, reducing dietary ash, and validating flavor, label and natural claims.

**SeaPro<sup>®</sup> 70** is produced solely in the United States of America. It is traceable with documentation showing source and disposition of all raw material utilized in production and final product formulation. Our company benefits from vertical integration within a human seafood company, [Pacific Seafood Group](#), through access to their electronic tracking of fish catch, landings and processing, and the subsequent disposition of fresh fish cuttings. Pacific Seafood Group maintains strict quality standards based on scientifically-derived FSMA/HACCP systems at all our locations to ensure that the product you receive is the highest quality.

Customers are always welcome to visit our facilities and review our practices. Our definition of excellence, “*consistently doing your best and always striving to do better*” demonstrates our commitment to providing a traceable, sustainable and wholesome product to our customers and yours.

#### Guaranteed Analysis

Crude Protein (min)	70.0 %
Crude Fat (min)	7.0 %
Crude Fiber (max)	1.5 %
Ash (max)	12.0 %
Moisture (max)	10.0 %
Calcium (min/max)	3.0 / 5.0 %
Phosphorus (min)	2.0 %
Magnesium (max)	0.185 %
Salt (max)	1.5 %

#### Freshness

Histamine	50 mg / kg meal
Total Volatile Nitrogen	120 mg N / 100 g meal

<b>Amino Acids</b>	<b>(% meal)</b>
Alanine	3.9
Arginine	5.1
Aspartic acid	6.6
Cystine	0.7
Glutamic acid	9.1
Glycine	3.9
Histidine	1.6
Isoleucine	3.3
Leucine	5.4
Lysine	5.7
Methionine	2.0
Phenylalanine	3.3
Proline	2.9
Serine	3.1
Taurine	0.2
Threonine	2.9
Tryptophan	0.9
Tyrosine	2.8
Valine	3.9

**Protein Digestibility**

Pepsin Digestibility (0.0002% pepsin) 96.0 %

<b>Fatty Acids</b>		<b>(% meal)</b>	<b>(g / 100 g fat)</b>
Myristic	C 14:0	0.3	3.0
Palmitic	C 16:0	1.8	19.0
Palmitoleic	C 16:1	0.7	7.0
Stearic	C 18:0	0.5	5.0
cis-Oleic	C 18:1 n-9	2.4	25.0
cis-Linoleic	C 18:2 n-6	0.2	1.8
gamma-Linolenic	C 18:3 n-6	N/A	0.4
α-Linolenic	C 18:3 n-3	0.2	1.5
cis-11-Eicosenoic	C 20:1 n-9	0.2	2.5
cis-11,14,17-Eicosatrienoic	C 20:3 n-3	0.2	2.0
Arachidonic	C 20:4 n-6	0.2	1.5
Eicosapentaenoic (EPA)	C 20:5 n-3	1.2	12.3
Erucic	C 22:1 n-9	0.1	1.5
Docosahexaenoic (DHA)	C 22:6 n-3	1.1	12.0
Total omega-3		2.3	28.5
Total omega-6		0.4	2.5

**Fat Stability**

Preserved with mixed tocopherols 1,000 ppm  
 Peroxide Value 10.0 mEq / kg fat

**Minerals (% meal)**

Calcium 3.8  
 Phosphorus 2.1  
 Potassium 0.5  
 Sodium 0.5  
 Sulfur 0.8  
 Magnesium 0.18

**(mg / kg meal)**

Iron 160  
 Zinc 100  
 Aluminum 40  
 Copper 4  
 Manganese 10  
 Chromium 1  
 Vanadium BDL  
 Cadmium BDL  
 Lead 1  
 Cobalt BDL  
 Nickel BDL  
 Molybdenum BDL

**Vitamins (IU / kg meal)**

Vitamin A 86,500  
 Vitamin D 1,500  
 Vitamin E N/A

**Microbial Analysis**

Aerobic Plate Count 100,000 cfu / g

**Product Characteristics**

Color Light brown  
 Odor Mild fish  
 Physical Free-flowing, 100% through 1.9 mm screen  
 Density Approximately 25 - 28 lb / ft<sup>3</sup>  
 pH 7.0 – 7.5  
 Storage Store in a cool, dry place in original packaging  
 Stability 6 months when appropriately stored

**Packaging**

1800 lb bulk bags

**AAFCO Ingredient Name**

Fish Meal, Fish Protein Concentrate

**Certification**

Canada Export

**Processing Statements**

Allergen: This product contains fish and is processed in a facility that processes crustacean shellfish.

This product is not intended for human consumption.

**Typical Values**

The value for mixed tocopherols is a residual and typical content for the product at the time of shipping.

The value for peroxide is a typical value for the product at the time of shipping.

The values for freshness, amino acids, fatty acids, minerals, vitamins, aerobic plate count, and product characteristics are typical and expected.

**Manufacturer**

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