

SeaPro™ 75- MSC

De-Boned Natural Pacific Whiting Meal

SeaPro™ 75- MSC is a de-boned, high-protein, low-ash fishmeal derived 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. It is a novel feed ingredient that *is* certified as sustainable by the Marine Stewardship Council (www.msc.org). Achieving these quality standards reflects our commitment to worldwide marine resource management that is responsible and sustainable, and to best manufacturing practices.

SeaPro™ 75- MSC 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 extremely low in ash and magnesium. It provides a supplemental level of omega-3 fatty acids including docosahexaenoic (DHA) and eicosapentaenoic (EPA), and is stabilized with natural antioxidants. This premium product is ideal for improving feed protein quality; reducing dietary ash and magnesium content; and validating flavor, label, and natural claims.

SeaPro™ 75- MSC is produced solely in the United States of America. It is traceable with documentation showing source and processing of 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)	75.0 %
Crude Fat (min)	8.5 %
Crude Fiber (max)	1.0 %
Ash (max)	5.5 %
Moisture (max)	10.0 %
Calcium (min/max)	0.5 / 1.0 %
Phosphorus (min)	0.7 %
Magnesium (max)	0.145 %
Salt (max)	1.5 %

Freshness

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

Amino Acids	(% meal)	(g / 100 g protein)	(% digestible)
Alanine	4.1	5.3	95.9
Arginine	5.6	7.3	88.4
Aspartic acid	7.3	9.5	93.5
Cystine	0.7	0.9	86.8
Glutamic acid	10.1	13.2	94.8
Glycine	3.4	4.5	N/A
Histidine	1.8	2.3	83.8
Isoleucine	3.7	4.8	96.1
Leucine	6.4	8.4	96.3
Lysine	6.6	8.6	85.7
Methionine	2.2	2.9	96.6
Phenylalanine	3.7	4.8	95.4
Proline	2.8	3.6	93.6
Serine	3.2	4.2	94.1
Taurine	0.2	0.3	N/A
Threonine	3.6	4.7	94.2
Tryptophan	1.2	1.6	99.7
Tyrosine	3.3	4.3	95.1
Valine	4.4	5.8	94.1

Protein Digestibility	(% protein)
Pepsin (0.0002% pepsin)	96.0
Rainbow Trout	92.1

Fatty Acids		(% meal)	(g / 100 g fat)
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
Docosaheptaenoic (DHA)	C 22:6 n-3	1.1	12.0
Total omega-3		2.8	28.5
Total omega-6		0.4	2.5

Fat Stability

Preserved with mixed tocopherols 1250 ppm
Peroxide Value 10.0 mEq / kg fat

Minerals (% meal)

Calcium 0.8
Phosphorus 0.9
Potassium 0.5
Sodium 0.4
Sulfur 0.9
Magnesium 0.13

(mg / kg meal)

Iron 250
Zinc 100
Aluminum 30
Copper 4
Manganese 5
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 / ft³
pH 7.0 – 7.5
Storage Store in a cool, dry place in original packaging
Stability 6 months when appropriately stored

Packaging	1,800 lb bulk bags
AAFCO Definition	Pacific Whiting Meal, Whitefish Meal, Fishmeal
Certification	Marine Stewardship Council (MSC-C-50472) 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 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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