

# SeaOil™

## Natural Pacific Whiting Oil

**SeaOil™** is derived from the 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](http://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. Additionally, it is the best way to ensure our product is wholesome, renewable and consistently available.

**SeaOil™** is a crude oil that retains a complete profile of all naturally-occurring fatty acids. It has applications in a variety of animal feeds to provide dietary energy and supply critical omega-3 docosahexaenoic (DHA) and eicosapentaenoic (EPA) fatty acids. This ingredient is stabilized with natural antioxidants.

**SeaOil™** is a product of the United States of America. 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. 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 Fat (min)           | 98.5 % |
| Moisture/Impurities (max) | 1.5 %  |
| Free Fatty Acid (max)     | 5.0 %  |

### Typical Composition

|                            |                 |
|----------------------------|-----------------|
| Free Fatty Acid (as oleic) | 3.0 %           |
| Iodine Value (Wijs)        | 115-160         |
| Moisture Impurities        | 0.5 %           |
| Vitamin A                  | 900,000 IU / kg |
| Vitamin D                  | 15,000 IU / kg  |

## Fat Stability

|                   |              |
|-------------------|--------------|
| Mixed Tocopherols | 1500 ppm     |
| Peroxide Value    | 3.0 mEq / kg |

## Fatty Acid Profile

|                             |           | % Oil |
|-----------------------------|-----------|-------|
| Myristic                    | C14:0     | 3.5   |
| Palmitic                    | C16:0     | 21.0  |
| Palmitoleic                 | C16:1     | 7.0   |
| Stearic                     | C18:0     | 4.0   |
| Cis-Oleic                   | C18:1 n-9 | 25.0  |
| Cis-Linoleic                | C18:2 n-6 | 1.0   |
| $\alpha$ -Linolenic         | C18-3 n-3 | 1.0   |
| Cis-11,14,17-Eicosatrienoic | C20:3 n-3 | 0.5   |
| Arachidonic                 | C20:4 n-6 | 1.0   |
| Eicopentaenoic (EPA)        | C20:5 n-3 | 18.0  |
| Erucic                      | C22:1 n-9 | 1.0   |
| Docosahexaenoic (DHA)       | C22:6 n-3 | 9.0   |
| Saturated                   |           | 30.0  |
| Mono-unsaturated            |           | 32.0  |
| Poly-unsaturated            |           | 32.0  |
| Omega-3                     |           | 28.0  |
| Omega-6                     |           | 2.5   |

## Product Characteristics

|           |                                    |
|-----------|------------------------------------|
| Color     | Tan to amber                       |
| Odor      | Mild fish                          |
| Physical  | Liquid at room temperature         |
| Density   | 7.25 – 7.75 lb / gal               |
| pH        | 6.0 – 6.25                         |
| Storage   | Store in a cool, dry location      |
| Stability | 6 months when appropriately stored |

## Packaging

Bulk tankers or 2,000 lb liquid totes

## AAFCO Definition

Fish oil, marine fish oil

## **Certification**

Marine Stewardship Council (MSC-C-54072)

## **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 fatty acids, iodine, vitamins, and product characteristics are typical and expected.

## **Manufacturer**

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