

DISTILLING FACT FROM FICTION

Fish Oil Manufacturing Clarified

NORDIC[®]
NATURALS 

Pure and Great Tasting Omega Oils[®]

Many producers of fish oil focus exclusively on a few manufacturing steps instead of the entire manufacturing process, sacrificing product quality along the way. At Nordic Naturals we strive to make the best-tasting and most effective omega-3 fish oils possible, knowing that what matters most are results. That's why we follow production methods backed by the latest science and proven to yield supplements superior in taste, purity, and efficacy.

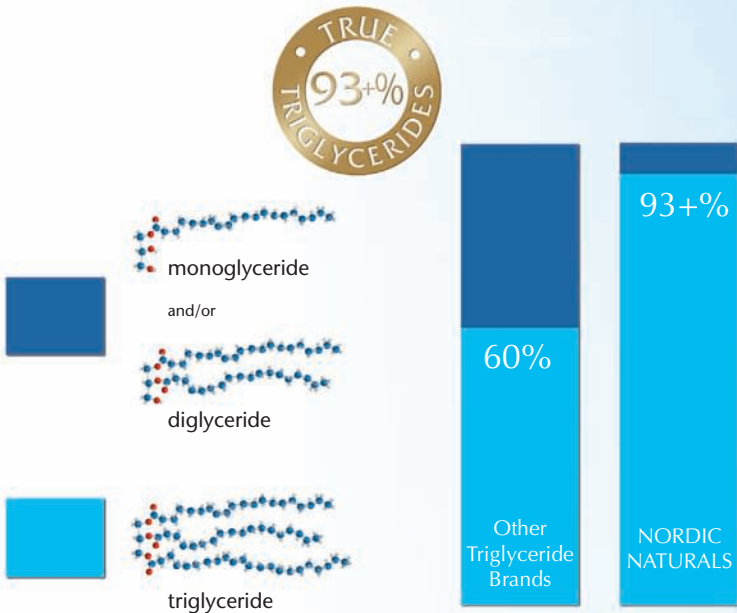
RESULTS MATTER!



Ask for a third-party analysis on any Nordic Naturals product.

RESULTS MATTER WHEN MAKING PREMIUM FISH OIL

New research confirms that concentrated fish oil in triglyceride form is 70% more absorbable than in ethyl ester form, leaving you with higher levels of omega-3s¹. Despite the triglyceride advantage, few brands on the market today take the time to manufacture concentrates in this form. Most that do, offer products that contain (at most) 60% true triglycerides, with the remaining 40% diglycerides and monoglycerides. Nordic Naturals' evidence-based processing attains over 93% triglycerides in our concentrated fish oils. **Get the triglyceride advantage!**



For more information on the digestion and absorption of fish oil, see our brochure *The Importance of the Triglyceride Form*.

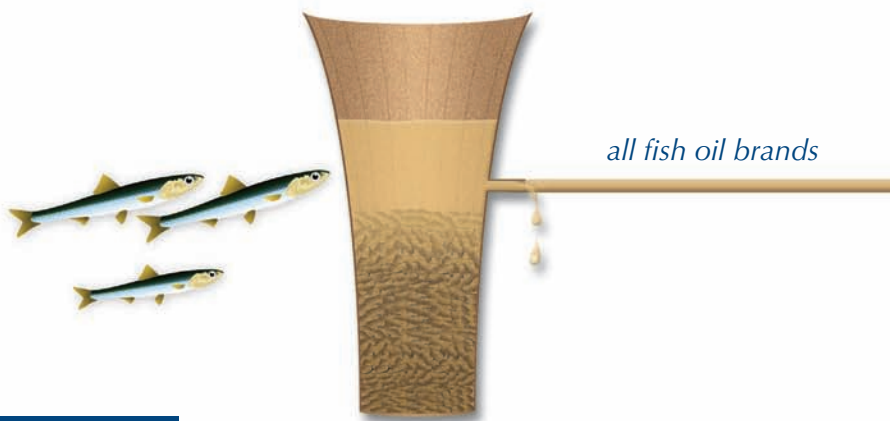
¹ Dyerberg J, et al. Bioavailability of marine n-3 fatty acid formulations. *Prostaglandins Leukot Essent Fatty Acids* 2010 Sep;83(3):137-141.



THE FACTS ABOUT

Despite what you may hear, all manufacturers use heat in the production of their fish oil supplements, as all oils must be cleaned, and all concentrated oils must be molecularly distilled. In the fish oil manufacturing business, this is true across the board. Regardless of whether some brands choose enzymatic or CO₂ (a.k.a. Supercritical CO₂ Extraction) processes for concentration, no brand can avoid heat when manufacturing fish oil supplements.

Third-party analyses confirm the Nordic Naturals advantage. Our fish oils are consistently rated as the purest and freshest available because we focus on results, taking great care to avoid rancidity and to remove harmful contaminants during processing.



STEP 1

EXTRACTION

After sourcing, manufacturers boil and press fish to extract raw oil rich in omega-3s. Nordic Naturals' oxygen-free processing environment ensures that our oils remain protected from the oxidation that causes the fishy smell and taste you find in inferior supplements.

THE FISH OIL MANU



STEP 3

ESTERIFICATION

In order to concentrate fish oil, it must first go through the process of converting its molecular form from natural triglycerides to ethyl esters. During this process, the glycerol backbone of these long-chain fatty acids is removed in order to concentrate them to levels beyond what is normally found in fish.

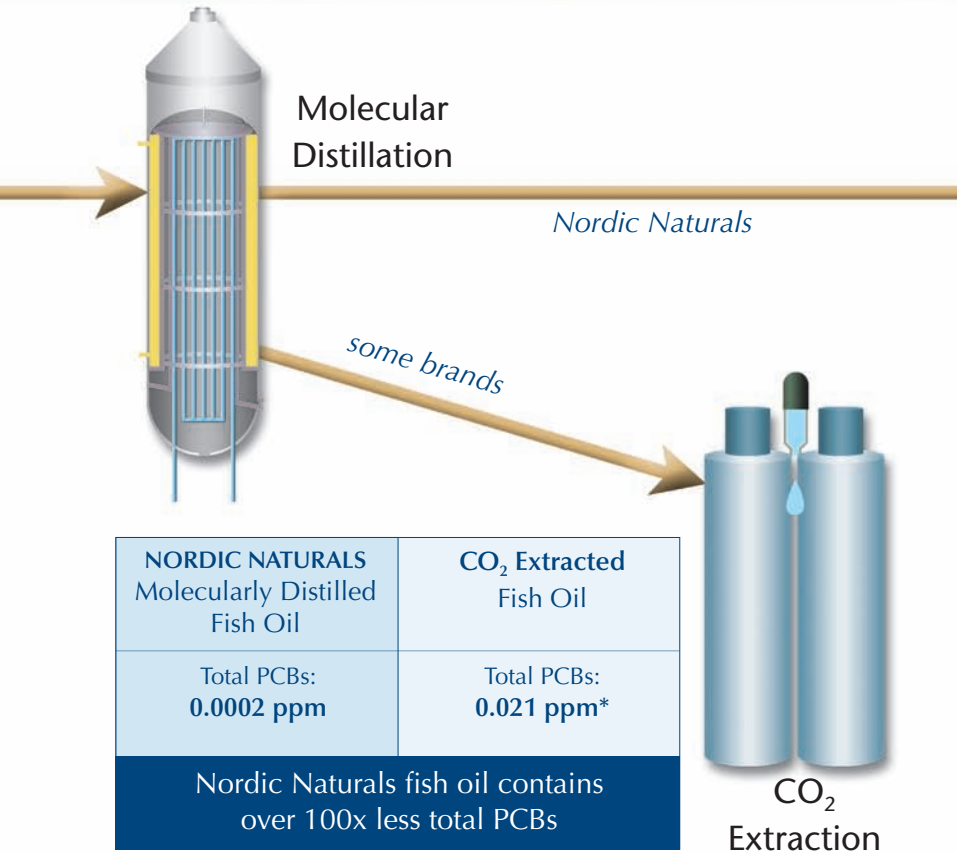
Molecular
Distillation
to
Remove Impurities

STEP 2

PURIFICATION

Fish oils are then purified (i.e. “stripped”) of heavy metals, pesticides, and PCBs through the process of molecular distillation. All quality manufacturers employ this technique prior to any chosen concentration method—be it further molecular distillation, enzymatic processing, or CO₂ extraction.

FACTURING PROCESS

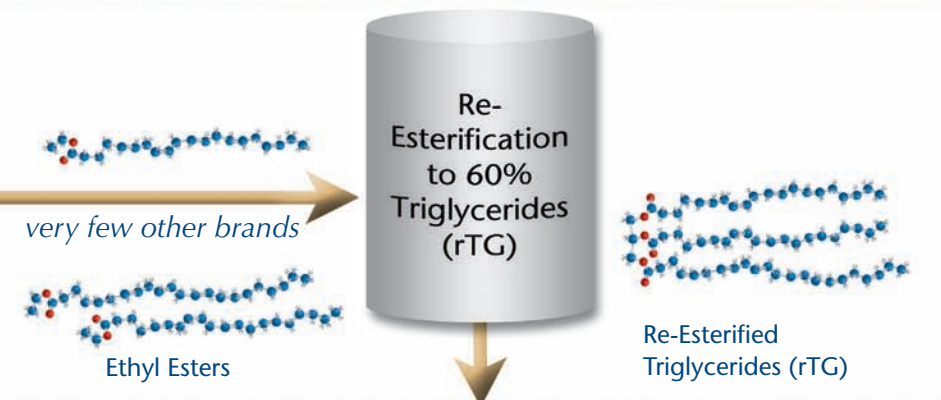


*Feb 22, 2011 Nutrasource Diagnostics, Inc.

STEP 4

CONCENTRATION

Purified fish oil is concentrated to yield high percentages of the omega-3s EPA and DHA. Here, some brands choose enzymatic or CO₂ concentration techniques. However, Nordic Naturals has determined that single-step molecular distillation yields the best results, as it avoids unnecessarily reheating and transporting the oil in order to finalize the concentration process.



STEP 5

RE-ESTERIFICATION

After concentration, our purified oils are carefully returned to their natural triglyceride form—the only form in which they exist in fish, or can be metabolized by the human body. Few other brands take this extra step, preferring instead to market their products as ethyl esters. By re-esterifying our oil in phases, we are able to deliver over 93% true triglycerides—far beyond those of other brands.

WHY NORDIC NATURALS

Transparent Third-Party Test Results

for heavy metals, dioxins, and PCBs,
surpassing all international quality standards

Great Taste

exceptional freshness and 100% natural fruit flavors
ensure no fishy smell, taste, or aftertaste

Multi-Patented Manufacturing Process

hexane-free, oxygen-free, and reduced heat yield
industry-leading purity and freshness

Natural Triglyceride Form

over 93% triglycerides at all concentration levels
to ensure absorption and bioavailability

Backed by Clinical Studies

14 published in scientific journals, and more
than 30 currently underway

Sustainable Sourcing

market's largest portfolio of products using fish
certified by the Marine Stewardship Council

Social Responsibility

improving quality of life for our employees,
communities, and society at large

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