

POSITIVE PACKAGING

for HIGH QUALITY

O I L

PROTECTION



BPA
BISPHENOL A



Superior protection from the effects of light

Omega Nutrition began with a vision to produce the highest quality organic, unrefined Flax Oil possible. Flax seeds offer the best-known plant source of essential fatty acids (EFAs). To remain fresh and nutritious, the extremely delicate EFAs require complete protection from the destructive agents of light, heat and oxygen. This is why Omega Nutrition developed the exclusive omegaflo_® process to manufacture fresh, unrefined oils from organic seeds.

While the omegaflo_® process represents a revolutionary advance for the edible oil industry, we know that without the right kind of packaging, nutrients will be quickly destroyed. Light causes the most damage to unrefined oil so it is most important to find packaging that offers complete protection from the damaging effects of light.

Glass bottles do not offer complete protection from the transmission of light and as such are not acceptable containers for oil—even brown glass offers insufficient protection. Metal containers do block out light, but are not recommended as the metal itself leads to the breakdown of oil.

Extensive research into the various kinds of plastics helped us find the right solution to our packaging questions. We choose special opaque containers made of premium food-grade high-density polyethylene (HDPE) that offer complete exclusion of light, as well as being 100% non-reactive with oil. In addition, each bottle is flushed with inert gas during bottling to create an oxygen-free environment. Omega Nutrition firmly believes in the choice of opaque HDPE plastic as the positive packaging solution to best protect the essential nutrients of unrefined oils.

Choosing the right plastic for food and oils

The chart below shows the many different kinds of plastics, all with their own uses and qualities. We chose opaque HDPE, and extensive research has been conducted to support this decision. Opaque HDPE offers the best protection for delicate oils from the effects of light. HDPE does not migrate into food; it has superior repellent qualities offering a superlative oxygen barrier for the protection of edible oils. Tests performed by independent laboratories on Omega Nutrition's HDPE bottles found them to be inert during extended contact with Flax Oil. These findings confirm those of regulatory bodies worldwide, including the US Food and Drug Administration (FDA) and Health and Welfare Canada, which have approved HDPE

for use in food oil packaging. Furthermore, our supplier of HDPE confirms that under no circumstances does Omega Nutrition's HDPE contain bisphenol-A and nonylphenol, chemical additives purported to have possible hormone disruptive and estrogen mimicking effects.



You can help recycle plastics!

- Separate your plastic by type. This helps manufacturers produce higher quality recycled products. (The recycling code is located on the bottom of the container.)
- Wash the container before recycling. To be recycled, plastics are either shredded or melted down and then used to make new plastic products.

How to Identify Plastic Recycling Codes				
ID Number	Abbreviation	Type of plastic	Appearance	Typical uses
	PETE	polyethylene	clear	pop & water bottles
	HDPE	high density polyethylene	translucent or colored	Omega's products, milk jugs, some yogurt/cottage cheese containers
	VC & PVC	vinylchloride & polyvinylchloride	clear or colored	some clear / colored containers
	LDPE	low density polyethylene	soft & flexible thin sheets	bags and wraps
	PP	polypropylene	white or colored	some yogurt / cottage cheese containers
	PS	styrene or polystyrene	white or colored foam	cups and bowls
	Other	expanded polystyrene	clear, tinted or colored	water cooler jugs and clear. hard containers

“Light is the greatest enemy of all vegetable oils.

All unsaturated oils such as flax seed and other polyunsaturated oils, have a strong absorption of light that rises dramatically in the visible green light wavelengths. The more nutritious the oil, the more vulnerable it is to degeneration. Strong absorption of green, blue, violet and ultraviolet light indicates that a great deal of energy is transferred to the oil. This energy manifests itself in rapid, irreversible chemical reactions called photo-oxidation. Any exposure to sunlight or interior lighting, especially fluorescent, can cause immediate reactions. Prolonged exposure to light will eventually turn an oil ‘rancid,’ regardless of whether an oil is in a sealed container.”

—Dr. C. Leigh Broadhurst

Degree of Protection from Light



Light and oil don't mix.

Environmental manufacturing facility

Omega Nutrition has been a strong supporter of environmental issues. Our manufacturing facility in Bellingham, WA has become the model for environmental manufacturing facilities. Over 45% of our 5-acre site has been converted back to a wetland. It is now a haven for Blue Herons, Wood Ducks and other species of wild life. Our state-of-the-art water treatment takes wastewater through a 3-stage aerobic and anaerobic system, returning clean water back to the environment. This model for manufacturers shows that if conscious planning is done from the start, an economical, environmentally-friendly facility can be built.

Environmentally safe and recyclable

From the beginning, it was important that our packaging choice be environmentally safe and recyclable. Omega Nutrition HDPE containers are a preferred material by the recycling industry and have the internationally-recognized recycling code #2. High Density Polyethylene is a clean plastic with no additives such as heavy metals. This is why it is easy to recycle into many useful consumer products, such as bottles, toys, pipes, crates, and more. Combinations of HDPE (#2) and PETE plastics (#1) can also be made into garbage cans, park benches, plastic “lumber”, manhole covers, and even railroad ties. HDPE can also be converted into energy. There are other factors that make a packaging choice environmentally sound. Plastic is thirteen times lighter than glass. This weight difference alone greatly reduces emissions from transport vehicles and results in less wear and tear on roads and highways.

HDPE plastic has become the industry standard

At Omega Nutrition, we believe in our products and stand behind them. Our families use them daily and we strive to manufacture only the highest quality and purest unrefined oils. That's why we choose opaque HDPE as packaging to protect our products. Many other companies have followed our lead, and opaque HDPE plastic has become the industry standard.

Researchers and doctors in North America have also given opaque HDPE their support as packaging for unrefined oils.



What the experts say...

“With the ever-increasing numbers of people supplementing their diet with flax seed oil for essential fatty acids, one must also be sure that the packaging is the right kind. Clear glass and brown glass allow enough light into the bottle to cause photo-oxidation, leading to the breakdown of the essential fatty acids. Studies indicate that the best packaging is an inert, food grade plastic which is 100 percent opaque...”

Zoltan Rona, M.D., M.Sc.

Natural Health Products Report (Canada), December 12, 1994.

“Optimally, no edible oil should be stored in clear containers. This is especially true for unrefined, natural polyunsaturated oils. Most commercial refined oils are stored in clear packaging. This is not optimum for shelf life, but is done for aesthetic and marketing reasons. Refining, processing, special packaging and the addition of chemical antioxidants allow for a reasonable room temperature shelf life for these oils in stores. Edible oils should always be stored in a cool, dark place after opening.

Sometimes amber glass is used to package edible oils. Amber glass is opaque to green light so it can protect oil from the significant strong absorption. However, amber glass is partially transparent to red, yellow, and orange light. When it comes to truly cold-pressed unrefined oils, this is unacceptable. Only completely opaque containers can protect unrefined oils from light! For this important reason, Omega Nutrition has chosen opaque high-density polyethylene (HDPE) to package oils. The type of HDPE Omega Nutrition uses is lightweight, unbreakable and recyclable. It is designed specifically for lipid-containing food products.”

Dr. C. Leigh Broadhurst, Ph.D.

Dr. Broadhurst is a physical and analytical geochemist with a life-long interest in nutrition and preventive medicine. She works as a Visiting Scientist at the USDA Beltsville Human Nutrition Research Center and also heads 22nd Century Nutrition, a private nutrition and scientific consulting company.



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©2009 Omega Nutrition
Vancouver, BC V5L 1P5 /
Bellingham, WA 98226
call toll free: 1 800 661 FLAX (3529)
info@omeganutrition.com
www.omeganutrition.com
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