

# Oleanolic Acid in Your Existing and New Product Lines

Oleano 85<sup>™</sup> provides OA at an 85% concentration. At a typical 100 mg dosage, Oleano 85<sup>™</sup> provides as much oleanolic acid as 35 tablespoons of high-quality extra virgin olive oil.



**Athletic performance blends\*** 

Sports nutrition blends

Stand alone, single-ingredient circulatory support product\*

Circulatory and cardio supportive blends\*

Metabolic support blends\*

Weight management blends featuring added cardio support\*

Oleano 85™ provides superior levels of Oleanolic Acid, plus Maslinic Acid

Oleanolic acid – 85.0 to 90.0% (85.3%, in-house HPLC)

Maslinic acid – 2.0 to 5.0% (4.2%, in-house HPLC)

- Maslinic acid has been studied for its ability to:
- Provide antioxidant support\*
- Promote cellular health, including healthy cellular apoptosis\*
- Support vascular health and integrity\*
- Help support a healthy immune response\*

### **About Cepham**

Cepham is an NSF and GMP certified manufacturer of fine herbal ingredients. We draw upon our vast resear experience in the pharmaceutical industry to find the most bioactive compounds in herbal medicine. We have office in both the U.S. and India, and our ethnobotanists travel the globe looking for the most promising and efficacion herbal solutions for human health goals.

Our quality control team monitors every step in our manufacturing processes to ensure full compliance with all GN and regulations in Europe, North America, and Asia. We also make it our goal to obtain NSF certification for oppositions of products, as well as USDA Organic Certifications and Kosher Certifications when applicable. We're committed upholding the highest standards for purity, safety, and efficacy.



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CIRCULATORY SUPPORT\* | ATHLETIC PERFORMANCE\* | WELLNESS & VITALITY\*



Olive oil is the heart

health gem of the

Mediterranean diet, and

oleanolic acid is the ke

to those cardiovascula

benefits.\*

# **Mystery No More:** Mediterranean Diet Secret Discovered

The Mediterranean diet has long been touted for its associations with optimal cardiovascular health, powerful antioxidant support, and general longevity and vitality. Speculations abound regarding the reasons for this diet's demonstrated whole health support. Finally, we have lab and clinical science that has established one of the components in olive oil as the gem of Mediterranean cuisine.

If the Mediterranean diet is one of the healthiest options on Earth, then olive oil may be its healthiest ingredient. Honing our focus even further, the most heart-healthy component of olive oil is likely oleanolic acid (OA). OA is found in the highest concentrations in *orujo* olive oil, the form most commonly used in traditional Mediterranean cooking.

OA is a natural antioxidant triterpenoid. While several olive oil components have been researched—including polyphenol hydroxytyrosol and another triterpenoid called erythrodiol —we now know that OA is the most active in the presence of human cells. Even compared to erythrodiol, OA has from been found to convey the strongest effects in cardiovascular

#### Olive Oil's Powerhouse in a Highly Concentrated Form

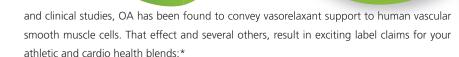
Oleano 85<sup>™</sup> provides OA at an 85% concentration. At a typical 100 mg dosage, Oleano 85<sup>™</sup> provides as much oleanolic acid as 35 tablespoons of high-quality extra virgin olive oil.

While olive oil itself is a heart-healthy food, consumers don't always have the time for complex recipes, and many aren't fond of the taste. Additionally, olive oil product quality, especially in the US, is often compromised. Many brands sell product whose quality is so low, much of the purported olive oil health benefits are negated by the time the consumer

OA supplementation is an effective and convenient solution. Supplemental OA

preserves and successfully conveys one of the chief benefits of the Mediterranean diet. In lab

hese statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



Promotes healthy circulation and vasodilation\* Provides powerful antioxidant support\*

Helps maintain balanced cholesterol levels already in the normal range\*

Researchers continue to study OA's effects, and such studies are beginning to get coverage in the mainstream media. As consumers become increasingly aware of olive oil's benefits and its specific heart-healthy components, they grow sensitive to the value of ingredients like OA. Condition-specific blends that contain concentrated extracts from the Mediterranean diet are especially valuable to those with cardio health goals.\*

Along with its OA content, Oleano  $85^{\text{m}}$  also supplies Maslinic Acid (MA, 2.0 - 5.0%). MA has powerful antioxidant effects and is known to support vascular health, promote healthy cell cycles throughout the body, and support healthy immune system activities.\*

# What is Oleanolic Acid? Science Highlights

Oleanolic acid (OA) is a pentacyclic triterpenoid found in olive oil. Lab analyses have found that OA demonstrates powerful antioxidant support and encourages immune-balancing activities in human cells.\*

**Circulatory Support:** It appears that OA supports healthy vascular prostaglandin I, (PGI<sub>2</sub>) release in human vascular smooth muscle cells, which results in vasorelaxant effects. The PGI, release occurs via a COX-2 pathway, similar to the route by which HDL (good cholesterol) provides its vascular support. This natural alteration of cytokine production results in the vasoexpansion that is so beneficial for the circulatory system. OA ultimately promotes healthy vasodilation and circulation. This is an invaluable effect for anyone with goals for athletic performance and recovery or cardiovascular health.\*

Healthy Blood Pressure: In animal studies, OA's effect on the circulatory system translates into maintenance of healthy blood pressure levels. Human clinical trials are needed to fully establish this effect and determine exact dosing, but studies utilizing human vascular cells have already established this connection.\*

Other Effects: As a powerful antioxidant, OA has been found to help maintain healthy cholesterol levels already in the normal range. Its antioxidant activities may also be involved in its ability to help maintain healthy blood glucose levels as seen in animal studies. OA's antioxidant and immune balancing effects also appear to promote cellular health and normal cellular apoptosis throughout the body.\*

\*This material is for professional education only. Not for consumer distribution.







# Oleano 85<sup>™</sup> Ingredient Summary

Oleano 85<sup>™</sup> Oleanolic Acid is derived from *Olea europea* olives. Hydro-alcoholic extraction followed by a column purification process optimizes Oleano 85<sup>™</sup> for focused circulatory wellness and athletic performance. It works well in multi-ingredient blends, but is concentrated enough that it may be provided as a stand-alone single-ingredient product.\*

#### **Demonstrated safe**

Acute oral toxicity established at 5000 mg/kg body weight

Ames' bacterial reverse mutation assay, conducted under GLP, confirmed its non-mutagenic potential

BSE/TSE free

Manufactured in NSF-GMP certified plant Versatility in blends

Slightly soluble in water

Soluble in organic solvents

# **Manufacturing Versatility**

Suitable for broad encapsulation and tableting scenarios. Also versatile in beverage applications. Blends well with grape juice, berries, orange juice, vegetable puree and smoothies.

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