



Introduction

OptiLut® is a portfolio of lutein esters created for optimal eye health and healthy aging. Lutein helps support healthy vision and may help reduce the risk of progression to advanced age-related macular degeneration (AMD). OptiLut® supports macular health and may help to improve visual performance with prolonged screen use in healthy individuals. Lutein and Zeaxanthin have also been shown to benefit cognitive health in all age groups, from infants to late adulthood.

OptiLut® lutein esters are extracted and purified from marigold flowers, *Tagetes erecta*. Lutein esters have been shown to be more bioavailable than free lutein. The exclusive OptiLut® line offered by NutriScience Innovations represents a comprehensive range of marigold lutein ester extracts that deliver high quality at a competitive price point. OptiLut® is ideal for a quality focused brand that wants to deliver the highest quality products at competitive prices to its customers.

Features & Benefits

- Full range of lutein esters – up to an industry-leading 80% lutein esters (equivalent to 40% free lutein)
- Multiple forms available – oils, powders and beadlets
- Available in both 40 & 80 mesh options; 80 mesh is ideal for use in softgel formulations
- Traceability to the marigold seeds and farms
- Non-GMO Project Verified products available
- Highly bioavailable oil or powder forms ; enhanced stability beadlet forms
- Proprietary process for the isolation of lutein from marigold flowers
- Consumption of lutein esters mimics the natural conversion process of lutein esters from plants that are converted within the body to free lutein

Formulating with OptiLut®

OptiLut® is available in a variety of delivery forms well suited for use in oils, tablets, capsules, softgels, and functional foods and beverages. Each mg of lutein ester contains about 50% free lutein. The 1:2 ratio is what is commonly used in formulating as this represents the most severe case for natural variation due to the different amounts and types of esters. OptiLut® is available in powder, beadlets and oil.

Clinical Studies and Science

Vision Health

The benefits of lutein for eye health have been well established. The AREDS 2 formula has been shown to clinically reduce the progression of advanced, age-related macular degeneration. Studies have also shown that lutein esters are more bioavailable than free lutein and, thus, are more readily absorbed by the body. Approximately 20 mg of lutein esters (equivalent to 10 mg free lutein) can be used to deliver an equivalent dose of lutein to the dosing used in the AREDS 2 study.

Cognitive Health

In 2017, a large-scale longitudinal study found that plasma levels of lutein and zeaxanthin are associated with improved cognitive function in adults. It was found that supplemented patients experienced significant increases in brain blood flow in areas of the brain vital to cognition and memory. Other studies have demonstrated effects of lutein and zeaxanthin supplementation as: Producing a “brain maintenance effect” by shielding against the impact of aging on cognitive performance and enhancing brain blood flow in the specific areas that support cognitive function.

OptiLut® Lutein Esters Grades:

- Lutein Esters 10%
- Lutein Esters 20%
- Lutein Esters 40%
- Lutein Esters 80%

Structure/Function Claims for Vision Health

Supports eye health

Supports healthy vision

May benefit driving at night

May improve contrast sensitivity

Healthy eye strength and focus

Reduction in occasional eye fatigue

Helps maintain macular pigment density as we age

May improve visual performance with prolonged screen use in healthy individuals

May improve visual performance when the ambient illumination is low

Antioxidant support for eyes

Structure/Function Claims for Cognitive Health

May have cognitive benefits

May promote cognitive functions

Helps increase MPOD, which has been correlated to increased visual processing speed

Helps increase MPOD, which has been correlated to improved reaction time

Certifications & Quality Assurance

Non-GMO Project Verified forms available

Kosher

Halal

Vegan & Vegetarian Compliant

Applications

Softgels

Capsules

Tablets

Functional foods & beverages

Source

Extracted from marigold flowers, *Tagetes erecta*, traceable to the seeds and farms.

Safety and Regulatory

Lutein is a pre-1994 dietary ingredient. All the components of OptiLut® are GRAS.

*National Eye Institute, National Institute of Health, “Age-Related Eye Disease Study 2 (AREDS 2)”

Tel: (203) 372-8877 | Sales@NutriScienceUSA.com

NutriScienceUSA.com | Fax: (203) 372-9977



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