

## Glycerol monolaurate

Cat. No. *OPEM-001*

Lot. No. (See product label)

### *Introduction*

#### **Description**

Glyceryl monolaurate (GML), also known as monolaurin or lauric acid glyceride, is a monester formed by the esterification of glycerol and lauric acid (a 12-carbon saturated fatty acid). It is classified as a nonionic surfactant with a hydrophilic-lipophilic balance (HLB) value of approximately 5.2. This range is suitable for oil-in-water emulsions and, most importantly, for interacting with microbial lipid membranes. It exhibits broad-spectrum antibacterial activity and is commonly used as an immune-supporting component in personal care products, infant formula milk, food preservation, and nutritional supplements.

#### **Applications**

It effectively slows down the oxidation and spoilage of food, thereby extending its shelf life. Its antimicrobial efficacy is not affected by pH levels, and it possesses the ability to resist infection by pathogenic microorganisms, outperforming sorbic acid, benzoic acid, and parabens. It is widely used in products such as infant formula and rice cereal.

### *Product Information*

#### **Appearance**

A white to off-white powder or waxy solid

#### **CAS No.**

142-18-7

#### **Molecular Formula**

C<sub>15</sub>H<sub>30</sub>O<sub>4</sub>

#### **Molecular Weight**

274.4

#### **Purity**

90%

#### **Function**

This product has antioxidant and antibacterial properties.