# Liposomal Glutathione - Citrus Vanilla

180mg of micellar liposomal glutathione and 25mg of lactoferrin in each 10mL sachet to provide enhanced bioavailability, stability and sustained release. Orange spice flavour for improved compliance.



GMO Free

Gluten Free

Sov Free

- Glutathione is one of the body's most powerful antioxidants and is necessary for proper detoxification pathways, indicated in cases of environmental toxicity, mitochondrial dysfunction, and neurological deficits
- Patented Cyto-Sorb technology utilizes a twophase emulsion process with phosphatidylcholine sourced from non-GMO sunflower, vitamin E, and organic coconut vegetable glycerin in order to create micellar liposomes and drastically improve the bioavailability, stability, and sustained release of glutathione
- Whey protein concentrate and lactoferrin are added for their ability to stabilize glutathione and provide additional antiviral and antimicrobial support
- Each 10mL sachet provides 180mg of stable glutathione, 145mg of whey protein concentrate, and 25mg of lactoferrin in an orange spice flavour for improved compliance
- 30 individual use sachets and servings per box

Glutathione is a tripeptide molecule synthesized within the body from three amino acids: cysteine, glycine, and glutamate. Glutathione is considered to be one of the body's most powerful antioxidants, involved in a number of enzyme systems necessary for detoxification, the neutralization of free radicals, and maintaining blood-brain barrier function. A number of health conditions are associated with low levels of intracellular glutathione including neurological deficits, cognitive issues, Parkinson's disease, autism, and respiratory conditions. Quite simply, a glutathione deficiency is a marker of mitochondrial dysfunction and oxidative stress.

One survey found that over 62% of individuals supplementing with intranasal glutathione reported health benefits for either multiple chemical sensitivities, allergies, sinusitis, Parkinson's disease, Lyme disease, or fatigue. Moreover, glutathione has demonstrated the ability to bind mycotoxins from mold exposure and successfully treat associated neurocognitive symptoms.

The concern with many glutathione supplements is that they cannot be orally ingested without being



digested into single amino acids prior to absorption. The tripeptide molecule is too large to be absorbed intact. The rate-limiting substrate for glutathione production appears to be cysteine, hence why N-acteylcysteine has such a multitude of health benefits in clinical practice and research. However, an even better solution exists. Liposomal glutathione has proven to be an effective method of delivering stable glutathione into the body tissues. Liposomal glutathione has been shown to be 100 times more effective at replenishing intracellular glutathione levels when compared to non-liposomal glutathione in animal models.

Liposomal delivery systems were originally developed to optimize the pharmacokinetics and efficacy of pharmaceutical drugs. These same principles have now been applied to natural health ingredients. A liposome consists of either a single-layered or multi-layered phospholipid structure with an aqueous core. Active ingredients can be placed inside the aqueous core or within the phospholipid bilayer, where they are protected from various enzymatic and digestive processes. Ultimately, liposomes provide improved bioavailability for active ingredients.

However, not all liposomal deliveries are created equal. Liposomes are several hundred nanometers in size, which means that there is still a significant amount of digestion that must occur to decrease surface area and allow for proper absorption.

Micelles, on the other hand, are significantly smaller and can be absorbed directly at ~20 nanometers in size.

**Liposomal Glutathione** by CytoMatrix utilizes Cyto-Sorb, a unique and patented technology, in order to create a stable multi-layered liposome with additional micellar delivery of glutathione. In addition, whey protein concentrate and lactoferrin are included as necessary stabilizing agents for the glutathione molecule, to prevent it from oxidizing and degrading into its parent amino acids, cysteine, glutamine, and glycine. Lactoferrin is therapeutic in its own right, with the ability to carefully transport iron within the body and provide antiviral and antimicrobial protection. Collectively, the processing techniques and the addition of whey protein concentrate and lactoferrin allow for micronutrient stability, improved bioavailability, and delivery of glutathione to the intestinal sites of absorption in a sustained release fashion.

Cyto-Sorb liposomal formulas are produced through a two-phase emulsion process utilizing phosphatidylcholine sourced from non-GMO sunflower, vitamin E, and organic coconut vegetable glycerin. Potassium bicarbonate is strategically added to stabilize the active ingredient, prevent oxidation, and improve flavour. **Liposomal Glutathione** by CytoMatrix provides 180mg of liposomal glutathione per 10mL sachet, along with 145mg of whey protein concentrate and 25mg of lactoferrin for stability. Each box provides 30 servings in a tasteful orange spice flavour for improved compliance

### Each 10mL serving contains

L-Glutathione (liposome)	180 mg
Whey Protein Concentrate	145 mg
( <i>Bos taurus</i> , milk) 80% whey protein	
Lactoferrin	25 mg
(Bos taurus, milk)	
Riboflavin	10 mg
(riboflavin 5'-phosphate)	
Molybdenum	35 mcg
(ammonium molybdate)	



### **Non-Medicinal Ingredients**

Glycerin, almond butter, phosphatidylcholine, medium chain triglycerides, d-alpha tocopherol, oleic acid, natural vanilla flavour, natural orange flavour, cinnamon, clove oil, stevia. **This product contains** (tree) nuts.

#### **Recommended Use Claim**

Provides antioxidants that help protect against the oxidative damage caused by free radicals. Supports good health.

#### **Directions of Use**

Adults - Take 1 sachet per day with food or as directed by a healthcare professional. Can be taken directly or mixed with a glass of water. Take a few hours before or after taking other medications or natural health products.

## **Cautions and Warnings**

Keep out of reach of children. There is enough drug in this package to seriously harm a child. Do not use if safety seal is broken.

#### **Duration of Use**

Consult a healthcare professional for use beyond 4 weeks.

#### Contraindications

Do not use this product if you are pregnant or breastfeeding. Do not use if you have a milk allergy.

# **Known Adverse Reactions**

Stop use if hypersensitivity occurs.

## **Storage Conditions**

Do not use if safety seal is broken.

