

# DES BIO Datasheet

# Liposomal Methyl B



### Why Liposomal Methyl B?

Performance of a vitamin supplement is dependent upon two distinct factors: absorption and bioavailability. **Liposomal Methyl B** provides the best of both by providing activated forms of B-vitamin in a nano-technology liposomal delivery system. Though there are many B-vitamin products on the market, most use synthetic or inactive forms of vitamins B6, B12, and folate. These products must then be converted by the body via a series of reactions so they can actually be utilized. **Liposomal Methyl B** was developed to give the body a boost, not create extra work, which is why we only included the co-factor forms of these essential B vitamins.

### The Need For Methylation Support

The co-factors in **Liposomal Methyl B** are involved in a series of reactions classified as methylation reactions. There are over 100 reactions in the body that are dependent on methylation, and impaired function of this process has a direct link to numerous chronic diseases. In fact, methylation may be comparable to antioxidant function when it comes to the important role it plays in disease prevention and anti-aging.

### Reactions dependent on methylation include:

- Production of neurotransmitters, such as serotonin, dopamine, and norepinephrine
- DNA and RNA synthesis
- Gene expression
- Melatonin production
- Production of glutathione
- Production of phospholipids such as phosphatidylcholine
- Production of endothelial nitric oxide synthase for nitric oxide production
- Phase 2 Detoxification
- Homocysteine regulation (elevated levels linked to cardiovascular/neurological diseases)

### Liposomal Delivery

**Liposomal Methyl B** also utilizes a liposome, the paramount transport system for delicate nutrients. Liposomes are microscopic vesicles made up of phospholipids, the same structures that make up our cell membranes. These small, bubble-like complexes work to encapsulate nano-particle sized nutrients, supporting their intact delivery directly to target cells. The unique structure of the liposome allows the encapsulated nutrient to bypass the digestive tract, allowing for mega-doses of nutrients even at moderate intake.<sup>1</sup>

### Folate (as 5-methyltetrahydrofolate)

The bioactive form of folate: 5'-methyl tetrahydrofolate (5-MTHF). Sometimes referred to as levomefolic acid, this is the form of folate that participates in reactions at the cellular level. In a double-blind placebo-controlled study of liver transplant recipients treated for 8 weeks with 5-MTHF (1 mg) vs. folic acid (1 mg) vs. placebo in an 8-week trial, 5-MTHF was found to be significantly more potent than folic acid at lowering elevated homocysteine levels.<sup>2</sup>

### Vitamin B12 (as methylcobalamin)

Essential for the regeneration of 5-MTHF in the methylation pathway. Vitamin B12 is predominately found in animal products, making inadequate intake of special concern in vegans and vegetarians. Absorption of dietary vitamin B12 is unique because it is dependent upon intrinsic factor. This glycoprotein is secreted by the parietal cells of the stomach and often declines in patients with digestive issues, who have undergone gastric surgery (such as a bypass), and in the elderly. If unnoticed, B12 deficiency can lead to neurological decline and a specific form of anemia known as pernicious anemia, named for its insidious onset. Since liposomal methylcobalamin bypasses normal digestive processes, taking vitamin B12 in this form can help correct deficiencies even when normal absorptive mechanisms are impaired. In patients with low intrinsic factor, oral sublingual supplementation with B12 has been found to be a comparable alternative to injection therapy.<sup>3</sup>

### POWERFUL

Provides folate, B12, B6 and trimethylglycine in their bio-active co-factor forms

### BIOAVAILABILITY

Advanced liposomal delivery system for superior bioavailability

### DELICIOUS

Great-tasting, fruit punch-flavored liquid supplement that is easy for any patient to incorporate into a daily protocol

### Supplement Facts

Serving Size: 0.5 ml (approximately 10 drops)  
Servings Per Container: 60

Amount per Serving	% DV†
Folate (as 5-methyltetrahydrofolate)	400 mcg 100%
Vitamin B-12 (as methylcobalamin)	500 mcg 8333%
Pyridoxal 5-phosphate (CoEnzyme Vitamin B-6)	2 mg *
Phosphatidylcholine	45 mg *
Trimethylglycine	34 mg *

\* % DV (Daily Values) not established

OTHER INGREDIENTS: Purified water, natural flavors, potassium sorbate.

**Suggested Use:** As a dietary supplement, take 1 serving 1 time per day or as directed by your healthcare professional. For best results combine with **Vitalyze**, **Elevate RxS**, **Vitalyze**, and/or **Focus RxS** (for mood issues), or **VascuFlow RxS** (for cardiovascular issues).

**Warnings:** If pregnant or breastfeeding, consult with your healthcare provider before use.



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