# ECHNICAL DATA SHEET



# **MOUNTAIN PEAK** NUTRITIONAL S<sup>®</sup>



### **ENERGY & VITALITY** ULTRA HIGH™ MULTIVITAMIN

Advanced vitamin, mineral, antioxidant, enzyme, and probiotic formula.

Ultra High is a unique and complete multivitamin, mineral, and antioxidant formula. Using the highest quality ingredients in their most bioavailable forms and at good potency levels, Ultra High is designed to provide the greatest opportunity for optimal health. Supplying essential nutrients, Ultra High also includes natural vitamin E with all four tocopherols, dimethylglycine, and now folate as L-5-MTHF. The shelf-stable probiotic and plant-based enzyme blends in Ultra High support a healthy GI tract to help optimize the absorption of beta carotene, mixed carotenoids, vitamin C, vitamin E and mixed tocopherols. A truly comprehensive and advanced formulation not found in other multivitamin complexes, Ultra High is especially welltolerated, even for those with sensitive stomachs. Ultra High does not contain iron.

#### Supplement Facts Serving size: 6 capsule

Servings per container: 30 Amount per serving			%D\
Vitamin A (Betatene® Mixed Carotenoids and Beta Carotene) 9,000 IU	2 700	mcg RAE	300%
Vitamin C (as Ascorbic Acid and Ascorbyl Palmitate)	450	,	500%
Vitamin D3 (as Cholecalciferol - vegan) 800 IU		mcq	100%
Vitamin E (from Sunflower and Mixed Tocopherols) 60 IU	40	mg	267%
Vitamin K (as K1 Phytonadione, K2 Menaquinone-4, 7)	120	mcg	100%
Thiamine (as Thiamine HCI)	3.6	mg	300%
Riboflavin (as Riboflavin 5' Phosphate)	3.9	mg	300%
Niacin (as Inositol Hexanicotinate)	48	mg	300%
Vitamin B6 (as Pyridoxine HCl and Pyridoxal-5-Phosphate)	5.1	mg	300%
Folate (as L-5-MTHF Methyltetrahydrofolate, calcium salt)	800	mcg DFE	200%
Vitamin B12 (as Methylcobalamin)	12	mcg	500%
Biotin	90	mcg	300%
Pantothenic Acid (as D-Calcium Pantothenate)	15	mg	300%
Calcium (as Lithothamnium: Red Algae, Citrate, Malate)	330	mg	25%
Magnesium (as Citrate, Malate)	165	mg	39%
Zinc (as Zinc Monomethionine)	11	mg	100%
Selenium (I-Selenomethionine)	110	mcg	200%
Copper (as Bisglycinate Chelate)	900	mcg	100%
Manganese (as Citrate)	7.5	mg	326%
Chromium (as Polynicotinate)	105	mcg	300%
Molybdenum (as Glycinate Chelate)	90	mcg	200%
Potassium (as Potassium Chloride and Citrate Monohydrate)	99	mg	2%
Choline Bitartrate	50	mg	9%
Proprietary Plant-Based Enzyme Blend: Cellulase, Papain, Lipase, Amylase, Bromelain, Lactase	285	mg	3
Proprietary Antioxidant and Immune Blend: Citrus Bioflavonoid Complex, DMG (Dimethylglycine), Quercetin Dihydrate	75	mg	:
Proprietary Probiotic Blend (shelf-stable): Bifidobacterium lactis, Bacillus coagulans, Saccharomyces boulardii, Lactobacillus acidophilus, Lactobacillus plantarum	600 Million	CFU***	:
* Daily Value not established.			

Other ingredients: Vegetarian capsules (hypromellose and purified water), silicon dioxide \*\*\*At time of manufacture

Recommended Use: 1-2 capsules 3 times daily with food, or as directed.

#### **INGREDIENTS:**

#### Vitamin A (Betatene® Mixed Carotenoids and Beta Carotene)

Beta Carotene and Mixed Carotenoids are plant pigments that are converted into Vitamin A in the intestines (1,13). They are antioxidants and support the immune system, targeting lymphocytes, monocytes, and natural killer cells (1). They play a critical role in the normal function of the heart, lungs, and eyes (13). Vitamin D3 (Cholecalciferol)

#### Vitamin D3 is a fat-soluble vitamin that promotes intestinal calcium and phosphorus absorption while reducing urinary calcium loss. Bone cells need it for growth and remodeling. Together, calcium with vitamin D are integral to bone health especially in older adults (2).

#### Vitamin E (Mixed Tocopherols)

Vitamin E is a fat-soluble vitamin. Ultra High contains a blend of mixed tocopherols that includes d-Alpha, d-Beta, d-Gamma and d-Delta. These naturally occurring tocopherols are the most biologically active forms and are powerful antioxidants and free radical scavengers (3). Research has revealed that a mixture of alpha, beta, delta and gamma isomers is more effective than any single tocopherol in promoting healthy platelet function (4).

#### Vitamin K

Vitamin K is a cofactor for the synthesis of osteocalcin, a unique bone protein that participates in the mineralization process (5). We use three forms vitamin K in the formula – Phytonadione (K1), Menaguinone MK-4 and MK-7 (K2).

#### **B** Vitamins

B Vitamins are responsible for tissue respiration, energy/ATP production, reducing feelings of stress by creating optimal nervous system function, healthy nerve cell function and the formation of several neurotransmitters, and processing carbohydrates, fats, proteins and amino acids. The various chemical forms support the utilization and absorption of key nutrients. Biologically active forms are ideal since they are more readily available. We use the active forms of B2 (Riboflavin 5' Phosphate), B6 (Pyridoxal 5' Phosphate and Pyridoxine HCI), B12 (Methylcobalamin) and folate as 5-methyltetrahydrofolate (5-MTHF). 5--MTHF is a naturally occurring form of folate and is the only form of folate that can cross the blood-brain barrier. It is used in Ultra High because approximately 10% of people are not able to convert folate into 5-MTHF. Folate is required for the production of DNA and RNA, the building blocks of cells. Folate is most effective when taken with Methyl B12 and Vitamin C. Folate is required for the synthesis of SAM-e, a neuro-transmitter associated with normal moods. Low concentrations of folate have been associated with fatigue, poor cognitive function, difficulty concentrating, low mood and irritability (1,12).

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

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#### Vitamin C

Ultra High uses a combination of Ascorbic Acid and Ascorbyl Palmitate to ensure absorption. Vitamin C is an important antioxidant (1,6). Ultra High has added an Antioxidant and Immune Blend that acts synergistically to increase the antioxidant benefits of Vitamin C (1). Health benefits include cardio-protection and support of healthy LDL- and HDL- cholesterol levels (1,6). Vitamin C also helps preserve intracellular glutathione levels to support healthy blood pressure (1). Vitamin C also supports healthy vollagen and elastin function for healthy joints and healthy wound healing (1,6,8) Additionally, Vitamin C has been shown to support healthy gall bladder function in women (1).

#### <u>Calcium</u>

Ultra High contains 3 forms of calcium: citrate, malate, and calcium from Lithothamnion Red Algae. Lithothamnion Red Algae Calcium is a natural, marinesourced multi-mineral, derived from the cytoskeleton of the red algal Lithothamnion spp. It is a source of 74 microminerals, including the essential bone-health minerals Boron, Silicon, Phosphorus, Vanadium, and Potassium. Calcium from Lithothamnion Red Algae has been shown in clinical trials to have excellent bioavailability, support healthy bone density and is better than Glucosamine for supporting bone and joint health and mobility (14). Calcium citrate and malate are very absorbable forms and contain 20% elemental Calcium. Ultra High contains 300 mg of Calcium to support optimal absorption.

#### Proprietary Plant-Based Enzyme Blend

As adults age, the levels of enzymes can drop, resulting in poorer nutrient absorption and an increase in stomach/digestive tract upset (7). Ultra High includes a plant-based enzyme blend to support healthy digestion and support optimal absorption of the nutrients in this supplement. All enzymes in this blend are plant-based, making Ultra High suitable for vegetarians and vegans.

#### Proprietary Antioxidant and Immune Blend

Citrus bioflavonoids and quercetin scavenge free radicals, support healthy blood glucose levels, support healthy lipid metabolism, support healthy inflammatory response and support a healthy cardiovascular system (16,17). DMG (Dimethylglycine) enhances oxygen uptake, increases ATP levels, and supports a healthy immune system by stimulating both the humoral (antibody) response and the cellular mediated response (15). These nutrients support the antioxidant and immune properties of the various vitamins and minerals in this formula (1,15).

#### Proprietary Shelf-Stable Probiotic Blend

Our probiotic mix contains five viable forms of microorganisms to support a healthy balance of intestinal flora. Bifidobacterium lactis – supports large intestine/colon health. Aids nutrient absorption. Supports the immune system, supports healthy cholesterol levels, supports normal blood sugar levels. Bacillus coagulans – supports normal bowel function and motility. Reduces gas, bloating and abdominal discomfort. Saccharomyces boulardii – supports healthy microbiome diversity and healthy digestive tract function. Lactobacillus acidophilus – supports healthy small intestine and immune system (18). Lactobacillus plantarum – support heathy digestion and immune system (18).

#### Magnesium

Magnesium performs myriad physiological roles that include cardiac function, neuromuscular contractions and the regulation of acid-alkaline balance in the body (9). It is vital for energy production and the metabolism of carbohydrates, amino acids and fats. It also helps utilize calcium, which helps support healthy bones.

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#### Potassium

Potassium is essential to cardiovascular function by regulating heart rhythm, water balance and normal nerve and muscle activity.

#### Manganese

Manganese activates numerous enzymes that are necessary for the uptake of biotin, vitamin C and thiamine. Manganese benefits skeletal development, connective tissue structure and cellular integrity. It is a necessary cofactor in the bioelimination pathway responsible for processing of ammonia to urea.

#### Copper

Copper is an essential trace mineral. The majority of copper in the body is in the skeleton and muscles; the liver maintains plasma copper concentrations.

#### Zinc

Zinc is a biologically essential trace element. Methionate is one of the premier bioavailable forms. Zinc promotes a stronger immune system and is fundamental in collagen formation and healthy tissue development (10). It also plays a vital role in fetal and reproductive development and healthy prostate function.

#### Boron

Boron optimizes the normal utilization of many vitamins and minerals (improves metabolism of calcium, magnesium and phosphorus). Boron aids in the synthesizing of estrogen, vitamin D and other steroidal hormones. **Vanadium** 

### Vanadium is a trace mineral that promotes the formation of osteoblasts for stronger bone and teeth integrity.

#### **Chromium**

Chromium is an essential trace mineral that supports lipid and glucose metabolism and enzyme activation. Some athletes might be at risk for low chromium levels since strenuous aerobic exercise seems to increase urinary excretion of chromium (11).

#### **Molybdenum**

Molybdenum is an essential trace mineral and a key component of several enzymes involved in bioelimination processes including sulfite and xanthine oxidation.

#### <u>Selenium</u>

Selenium is a metallic substance that is available in a variety of chemical compounds. In the highly absorbable selenomethionine form, a natural antioxidant, selenium helps maintain the elasticity of tissue and supports the immune system.

### Patients: Consult with your healthcare professional for the proper use of this formula.

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