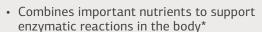


Trace Minerals-B₁₂™

8050 90 Tablets







- Provides a spectrum of minerals that support a healthy body, including essential cofactors for healthy cell functioning*
- Provides iodine, which is required for healthy thyroid
- Among other functions, these trace minerals support ligament, cartilage, and bone structure; immune system response function and thyroid function; fat metabolism; and calcium utilization*
- Excellent source of vitamin B_{12} , iodine, zinc, copper and manganese

Warning: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or poison control center immediately.

Warning: This product should only be used under the direct supervision of a qualified health care professional. Please consult your health care professional if you are pregnant, nursing, or taking any antithyroid medicines. Keep out of reach of children.

Supplement Facts

Serving Size: 1 Tablet Servings per Container: 90

	Amount per Serving	%Daily Value
Vitamin B12	4.2 mcg	175%
Iron	1.4 mg	8%
lodine	300 mcg	200%
Zinc	2.7 mg	25%
Copper	0.3 mg	33%
Manganese	16 mg	696%
Proprietary Blend	210 ma	+

Kelp, organic alfalfa (aerial parts) juice powder, magnesium citrate, organic pea vine juice powder, bovine orchic extract, bovine bone, organic buckwheat (aerial parts) juice powder, organic buckwheat flour, oat flour, defatted wheat germ, veal bone, organic carrot, and rice bran.

†Daily Value not established.

Other Ingredients: Manganese lactate, honey, zinc amino acid (rice) chelate, iron amino acid (rice) chelate, copper amino acid (rice) chelate, dicalcium phosphate, calcium stearate, prolamine iodine (zein), and cyanocobalamin.

Contains: Wheat.

Trace Minerals Support Important Endocrine & Musculoskeletal Functions

The trace minerals found in our Trace Minerals- B_{12}^{TM} formula support a variety of important functions in the body, especially within the endocrine and musculoskeletal systems.*



Thyroid Health

lodine is a key component of the thyroid hormones thyroxin (T4) and triiodothyronine (T3), incorporating molecules of iodine into the hormone structure. Thyroid hormone is required for fetal growth and metabolism in adults. The structure is a key component of the thyroid hormone is required for fetal growth and metabolism in adults.



Ligament, Cartilage, Bone Structure

Manganese supports healthy bone and connective tissue synthesis as a cofactor of glycosyltransferases: enzymes involved in the synthesis of proteoglycans.^{2,4} Proteoglycans are important structural components of connective tissues including cartilage and bone.^{2,5,6}

Copper acts as an essential cofactor for lysyl oxidase: an enzyme involved in collagen synthesis.⁴ Lysyl oxidase is normally secreted by connective tissue cells in bone, blood vessels, and other tissues, and its role is to promote cross-links between connective tissue proteins, including collagen and elastin, that are important to stabilize the extracellular matrix.⁴ Inadequate copper intake decreases the strength of connective tissues due to decreased activity of the enzyme lysyl oxidase.⁴

Iron is a cofactor for the enzymes lysine dioxygenase and proline dioxygenase, which are involved in collagen synthesis.⁴ Collagen is an important component of bone, cartilage, skin, and blood vessels.









Zinc has a key role in aspects of healthy immune function, including both innate and adaptive immune responses.⁷⁻¹² For example, thymulin — a zinc-dependent hormone — regulates the differentiation and function of maturing T cells in the thymus gland and blood.⁴



Lipid Metabolism

Zinc is part of multiple enzymes and impacts most major metabolic pathways. Three zinc atoms are required for proper activity of polyglutamate hydrolase, which is a membrane-bound enzyme that produces DAG (diacylglycerol) and IP3 (1,4,5-trisphosphate). Both DAG and IP3 are important lipid second messengers that control various cellular processes and act as substrates for synthesis of other signaling molecules.⁴

Trace Minerals-B₁₂™ Provides Essential Cofactors for Healthy Cell Function

Micronutrient & Role	Function ¹⁻⁴	
Vitamin B ₁₂ Cofactor for enzymes	 Homocysteine metabolism Energy production Heme synthesis	
Iron Cofactor for enzymes; component of iron-dependent proteins	ATP productionAntioxidant effectsThyroid hormone synthesisCarbohydrate metabolism	
Zinc Cofactor for hundreds of enzymes; Structural component of transcription factors	 Carbohydrate, protein, and lipid metabolism DNA and RNA synthesis Gene expression Cellular membrane integrity Immune function 	
Copper Cofactor for enzymes	 Iron utilization Antioxidant function ATP production Collagen synthesis Neurotransmitter activation Immune system function Gene expression 	
Manganese Co-activator of enzymes; constituent of metalloenzymes; modulates second messenger pathways	 Urea synthesis Carbohydrate and amino acid metabolism Antioxidant function Calcium-dependent processes 	

Since 1929, **Standard Process**

has been changing lives with our whole food philosophy.

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