

TECHNICAL DATA SHEET

Energy Formula



Energy Formula is a multi-functional powder that is a complete vitamin and mineral supplement, electrolyte replacement, and an energy increaser that is subtle, yet distinct. The nutritional support provided by Energy Formula is derived from amino acids, botanicals (herbs), vitamins and minerals and key nutrients that strengthen and support cell function. Energy Formula contains 100% natural ingredients, sweetened with Stevia, Lohan and Fructose, that provides a low glycemic index rating and the zesty orange flavor is tangy and incredibly refreshing.

VITAMINS

Beta-carotene is a safe non-toxic precursor to vitamin A. It promotes a stronger immune system, increases visual acuity and has anti-inflammatory properties.

B Complex Vitamins are essential for the proper function of the nervous system, energy production and optimal metabolism of glucose. B vitamins are responsible for the conversion of carbohydrates into energy, and the metabolism of fats and proteins.

Vitamin B-1 (Thiamin) and B-2 (Riboflavin) support adenosine triphosphate (ATP) production and tissue respiration (1). B-3 (Niacin) is a vasodilator (increases blood flow) and promotes glucose metabolism. B-5 (Pantothenic acid) is a precursor of coenzyme A which is required in the acetylation reactions in gluconeogenesis and in the release of energy from carbohydrates (2).

B-6 (Pyridoxine) is required for amino acid metabolism and is involved in carbohydrate and lipid metabolism (3).

B-12 (Cyanocobalamin) aids in the utilization of iron for optimal oxygenation of tissues (4). Folic acid reduces damage to DNA and prevents replication errors (5). Folic acid combined with B-12 and Vitamin C break down and utilize proteins. **Biotin** promotes the metabolism of carbohydrates, proteins and fats.

Vitamin C (Ascorbic acid) is a powerful antioxidant that reduces the risk of free radical damage (6). Vitamin C reduces inflammation and improves tissue healing. Vitamin D is a fat-soluble vitamin that supports calcium absorption and bone health.

Vitamin E is a fat-soluble vitamin. The natural d-alpha active form is used. It is a potent antioxidant and free radical scavenger (7). Vitamin E promotes cellular respiration of muscles, especially cardiac and skeletal muscles.

Calcium, magnesium and potassium are considered macro minerals. Calcium is the most abundant mineral in the human body. Calcium and magnesium play a vital role in bone formation, nerve function and muscle contraction (8).

Zinc, copper, and manganese, are classified as micro minerals and provide key cofactors for completing critical biological reactions within the cells throughout all systems of the body.

Potassium, sodium, calcium and magnesium are utilized as electrolytes that dissociate into ions when in solution, and become capable of conducting electric charges that maintain proper cell function, integrity, and health.

MINERALS

Chromium is an essential trace element that helps maintain normal blood sugar levels. Athletes may be at risk for low chromium levels since strenuous exercise increases urinary excretion of chromium (9).

Selenium is a metallic substance that inhibits the oxidation of lipids (fats). It is a vital antioxidant, especially when combined with vitamin E.

Molybdenum is an essential mineral that is required in extremely small amounts for nitrogen metabolism.

ADDITIONAL NUTRIENTS

Alpha-Lipoic Acid is both water and fat-soluble and can scavenge free radicals both intra- and extra- cellularly. It is involved in carbohydrate metabolism and production of adenosine triphosphate (ATP).

Coenzyme Q10 is found in virtually every cell, and is an important nutrient for optimal energy production. As a coenzyme, it supports metabolic reactions, such as transforming simple food groups into ATP.

Dimethylglycine (DMG) allows the heme group of the red blood cell (RBC) to be more efficient in utilizing available oxygen. DMG has also been shown to reduce lactic acid build-up and improve cellular respiration.

Glutamine is the most abundant amino acid in the body. Glutamine is essential for maintaining intestinal function, immune response, and amino acid homeostasis during times of severe stress (11).

Malic Acid is a naturally occurring compound that plays a role in the complex process of deriving ATP from food.

Taurine is a conditionally essential amino sulfonic acid that supports the regulation of heart contractions. Taurine helps facilitate the passage of sodium and potassium ions into and out of cells.

Theanine is the major amino acid found in green tea that is responsible for creating a focused yet anti-anxious state, by increasing alpha wave production. Theanine moderates the effects of caffeine on the central nervous system.

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Botanical (Herbs)

Panax Ginseng is used as a so-called "adaptogen" for increasing resistance to environmental stress and as a general tonic for improving well-being. Panax ginseng contains several active constituents. The constituents thought to be of most importance are triterpenoid saponins referred to collectively as ginsenosides (panaxosides). Numerous subtypes of ginsenosides have been identified. These ginsenosides have a wide range of pharmacological activity and effects. Production of adrenocorticotrophic hormone (ACTH) and ultimately corticosterone activity appears moderated by specific ginsenosides (12). Corticosterone promotes the conversion of amino acids into carbohydrates and glycogen by the liver and stimulates glycogen formation in the tissues, supporting optimal energy reserves.

Guarana is the national beverage of Brazil. It contains a fat-soluble compound guaranine that is closely related to caffeine. Most caffeine is water-soluble and therefore is absorbed into the body more rapidly than the fat-soluble form of guaranine. Fat-soluble guaranine provides an energy boost without the speedy edge that is often the case with water-soluble caffeine such as that which is contained in coffee. For improving athletic performance, caffeine has been shown to decrease perceived levels of exertion, which enables which enables the athlete to feel less tired and increase their performance (13).

Green Tea extract contains catechins, a class of powerful antioxidant compounds known as polyphenols. Green tea increases mental acuity without agitation, has an anti-depressant effect, and provides stimulation and energy.

Licorice Root has antispasmodic, anti-inflammatory and soothing properties. Panax ginseng appears to compliment licorice by increasing serum cortisol concentrations (14).

Rhodiola Rosea contains the active constituents rosavins and the phenylpropanoid glycoside called salidroside. Rosavins are thought to be responsible for rhodiola's stimulant, anti-stress, and adaptogenic actions (15). Rhodiola has a calming effect on the central nervous system and supports healthy thyroid, thymus, and adrenal gland function. Rhodiola helps moderate the effects of physical and emotional stress. Rosavins have demonstrated an "adaptogen" quality in balancing adrenal gland function (16).

Energy Formula

Quantity: 30 packets or 258 grams

Serving size: 1 packet or 1 scoop (8.6 grams)

Directions: 1 packet or 1 scoop as needed, or directed by your healthcare professional. Mix into 8-12 ounces of water or to taste, mix well.

8.6 grams contains:

Vitamin A (as Betacarotene)	1667 IU
Vitamin C (as Ascorbic Acid)	1000 mg
Vitamin D3	100 IU
Vitamin E (d-Tocopherol Acetate)	30 IU
Thiamin (as Thianim HCl)	10 mg
Riboflavin	10 mg
Niacin (66% Niacinamide, 33% Niacin)	15 mg
Vitamin B6 (as Pyridoxine HCl)	25 mg
Folic acid	1000 mcg
Vitamin B-12 (as Cyanocobalamin)	1000 mcg
Biotin	50 mcg
Pantothenic Acid (as Calcium Pantothenate)	20 mg
Calcium (Lactate)	75 mg
Magnesium (as Carbonate)	75 mg
Zinc (as Lactate)	7.5 mg
Potassium	200 mg
Selenium (as Selenomethionine)	50 mcg
Manganese (as Citrate)	3 mg
Chromium (as Aminonicotinate))	400 mcg
Molybdenum (Sodium Molybdate)	25 mcg
Sodium (as Bicarbonate)	100 mg
Green Tea Extract (50% polyphenols)	200 mg
DMG (as Dimethylglycine)	100 mg
L-Malic Acid	100 mg
L-Glutamine	50 mg
Guarana Seed Extract (36% Guaranine)	31 mg
L-Taurine	25 mg
L-Theanine	25 mg
Panax Ginseng Powder	25 mg
Rhodiola Rosea (5% Rosavins)	25 mg
Alpha Lipoic Acid	10 mg
Coenzyme Q-10	10 mg
Licorice (Root)	5 mg
Trace Mineral Complex	5 mg
Idebenone	3 mg
Inositol	3 mg
Boron (as Citrate)	1 mg

Other ingredients: Orange Juice Powder, Citric Acid, Lohan, Stevia, Natural Flavors, Fructose, Sodium Molybdate, Silica.

Patients: Consult your healthcare professional for the proper dosage and use of this formula.

For more information about this and other Condition Specific formulas®, please visit our website at:

www.mpn8.com



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