# Clean Star

# **Clean Start**



Colorado Springs, CO 80903

100% Chiropractic 110 S. Weber St.



# **Clinical Applications**

- Supports Natural Detoxification Mechanisms\*
- Supports Gastrointestinal Health\*
- Supports a Balanced Cytokine Profile\*
- Lactose-Free Vegan Protein Source\*

Clean Start is a comprehensive, monk-fruit-extract-sweetened, low-allergy—potential dietary supplement designed to support gastrointestinal (GI) function and balanced detoxification. It features Vegan Protein Blend, 100% Chiropractic Inc.'s proprietary amino acid and pea/rice protein blend; Aminogen®, to facilitate protein absorption; phytonutrients; mineral amino acid chelates; and activated B vitamins, including Quatrefolic® and methylcobalamin. In conjunction with a modified elimination diet, Clean Start addresses GI and hepatic function as well as eicosanoid balance and cytokine metabolism. This formula is suitable for vegans.\*

All 100% Chiropractic Inc. Formulas Meet or Exceed cGMP Quality Standards

## **Discussion**

Clean Start is now sweetened with a natural sweetener extracted from monk fruit. This generally recognized as safe (GRAS) monk-fruit extract offers a high-quality sweetness and flavor without the bitter aftertaste associated with some natural sweeteners.

Like 100% Chiropractic Inc.'s other Clean Start formulas, Clean Start Sugar- & Stevia-Free<sup>‡</sup> contains macro- and micronutrients, as well as a host of ingredients (some patented or proprietary) that support fatty acid metabolism, gastrointestinal health, and healthy eicosanoid and cytokine metabolism. Activated cofactors support mitochondrial energy production needed for biotransformation and detoxification. This formula's ingredients help moderate phase I detoxification, upregulate and support phase II pathways, and provide antioxidant support as well.\*

#### Protein Metabolism

Vegan Protein Blend is 100% Chiropractic Inc.'s proprietary blend of pea protein isolate and rice protein concentrate, L-glutamine, glycine, and taurine. Generation of glutathione and sulfation cofactors—vital for phase II conjugation—requires an array of amino acids. The combination of pea protein and rice protein, containing a complement of amino acids, achieves an amino acid score of 100%. Glutamine, a conditionally essential and versatile amino acid with two nitrogen moieties, is crucial to nitrogen metabolism and helps maintain healthy liver tissue and function. The amino acid glycine is needed for bile synthesis, phase II detoxification, and glutathione production. Taurine, a derivative of the sulfur-containing amino acid cysteine, is also important for synthesis of bile salts and helps stabilize cell membranes.\*

#### Gastrointestinal Support

Ginger root, included to support healthy digestion such as the release of bile from the gallbladder, acts at several sites to moderate PGE(2) production and support the normal response to inflammation. [3] Fiber (from inulin and flaxseeds) supports production of short-chain fatty acids as well as a healthy intestinal flora. MeadowPure™, an organic flaxseed complex, possesses excellent oxidative stability, supports antioxidant activity, and provides lignins, soluble fiber, and omega-3 and omega-6 essential fatty acids. [4] Glutamine plays a key role in healthy intestinal cell proliferation and gut barrier integrity, immune function, and normal tissue healing.\*[1.2]

#### Detoxification Support

Green tea catechins not only support antioxidant activity but also appear to act as modulators of phase I and phase II detoxification. [5] Choline is present to support lipid metabolism in the liver and can be converted to betaine, a methyl donor.\*[6]

The active, bioavailable form of **B vitamins** (pyridoxal-5'-phosphate (B6), 5-methyltetrahydrofolate (folate), methylcobalamin (B12)) and glycine all support amino acid conjugation and are vital for the detoxification of xenobiotics and xenoestrogens. 5-methyltetrahydrofolate (5-MTHF), methylcobalamin, betaine, and **methylsulfonylmethane** (MSM) are present to support methylation and detoxification. 5-MTHF supports healthy folate nutrition, especially in individuals with variations in folate metabolism. In Clean Start, 5-MTHF is provided as Quatrefolic® for enhanced stability, solubility, and bioavailability.\*<sup>[7]</sup>

Preventium®, a patented form of potassium hydrogen d-glucarate, supports glucuronidation. Sulfation is supported by MSM and sodium sulfate. Acetylation is supported by d-calcium pantothenate, pyridoxal-5'-phosphate, and magnesium. Several minerals in Clean Start are provided as Albion® mineral chelates and TRAACS® mineral amino acid chelates for enhanced gastrointestinal absorption and bioavailability.\*

#### Antioxidant Support and Cytokine Balance

**Bioflavonoids, quercetin, rutin,** and **curcumin** support antioxidant activity, counter free radicals, and support healthy eicosanoid and cytokine metabolism.<sup>[9,10]</sup> Curcumin has a long history of use for its support of a normal, healthy response to inflammation.<sup>[11]</sup> **N-acetyl-cysteine (NAC)** stimulates glutathione synthesis, enhances glutathione-S-transferase activity, and promotes detoxification.<sup>[12]</sup> **Selenium glycinate** provides support for glutathione metabolism and antioxidant protection.\*

\*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.

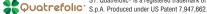
# Vanilla Delight Sugar- & Stevia-Free<sup>‡</sup>



# **Supplement Facts**

	Amount Per Serving	%DV	Amount Per Serving		%DV
Calories	210		Sodium (from ingredients with naturally occurring sodium, sodium	560 mg	24%
Total Fat	8 g	10%⁺	sulfate anhydrous, and sodium ascorbate)		
Saturated Fat	2 g	10%⁺	Potassium (from tripotassium citrate and ingredients with naturally	455 mg	10%
Total Carbohydrate	10 g	4%⁺	occurring potassium)		
Dietary Fiber	4 g	14%	Stabilized Flaxseed	E C a	**
Protein (from Pea Protein Isolate and Rice Protein Co			Typical Alpha-Linolenic Acid Content	5.6 g 1.28 a	**
/itamin A (as natural beta-carotene)	750 mcg	83%	Typical Linoleic Acid Content	392 mg	**
Vitamin C (as sodium ascorbate)	250 mg	278%	Pomegranate Extract (Punica granatum)(whole fruit)(30%	400 ma	**
Thiamin (as thiamine HCI)	15 mg	1250%	punicalagins A+B and punicalins A+B)		
Riboflavin (as riboflavin 5'-phosphate sodium)	5 mg	385%	Betaine Anhydrous (trimethylglycine)	250 mg	**
Viacin (as niacinamide and niacin)	40 mg	250%	Lemon Bioflavonoid Complex ( <i>Citrus × limon</i> )	250 mg	**
/itamin B6 (as pyridoxal 5'-phosphate)	5 mg	294%	(fruit peel)(25% bioflavonoids)		
Folate (as [6S]-5-methyltetrahydrofolic acid,	340 mcg DFE	85%	Quercetin (as quercetin dihydrate from <i>Dimorphandra mollis</i> )(pod)	250 mg	**
glucosamine salt) <sup>\$1</sup>			Potassium d-glucarate <sup>83</sup>	250 ma	**
Vitamin B12 (as methylcobalamin)	50 mcg	2083%	Rutin (from Sophora japonica)(bud)	200 mg	**
Biotin	150 mcg	500%	Turmeric Extract ( <i>Curcuma Ionga</i> )(rhizome)(95% total	200 mg	**
Pantothenic Acid (as d-calcium pantothenate)	35 mg	700%	curcuminoids complex, including curcumin, curcuminoids, and	200 mg	
Choline (as choline bitartrate)	100 mg	18%	volatile oils)(86% curcuminoids)(65% curcumin) <sup>84</sup>		
Calcium (as dicalcium malate <sup>s2</sup> and	225 mg	17%	N-Acetyl-L-Cysteine	150 mg	**
ngredients with naturally occurring calcium)			Ginger (Zingiber officinale)(rhizome)	150 mg	**
ron (naturally occurring)	5 mg	28%	Methylsulfonylmethane (MSM)	120 mg	**
lodine (as potassium iodide)	60 mcg	40%	Sodium Sulfate Anhydrous	100 mg	**
Magnesium (as di-magnesium malate) <sup>se</sup>	140 mg	33%	Green Tea Aqueous Extract (Camellia sinensis)(leaf)	82 mg	**
Zinc (as zinc bisglycinate chelate) <sup>82</sup>	10 mg	91%	(80% polyphenols, 60% catechins, 30% EGCG, 6% caffeine)		
Selenium (as selenium glycinate complex) <sup>52</sup>	100 mcg	182%			
Manganese (as manganese bisglycinate chelate) <sup>S2</sup>	2 mg	87%	† Percent Daily Values (DV) are based on a 2,000 calorie diet.		
Chromium (as chromium nicotinate glycinate chelate)	32 60 mcg	171%	** Daily Value not established.		
Molybdenum (as molybdenum glycinate chelate)82	35 mcg	78%	]		

Other Ingredients: Sunflower oil, natural flavors (no MSG), medium-chain triglyceride oil, taurine, glycine, cellulose gum, xanthan gum, fungal proteases<sup>53</sup>, L-glutamine, monk fruit extract, guar gum, and silica.



S1. Quatrefolic® is a registered trademark of Gnosis

S2. Albion®, DimaCal®, TRAACS®, and the Albion Gold Medallion® are registered trademarks of Albion Laboratories, Inc. Malates covered by US patent 6,706,904.

S4. BCM-95® is an exclusivity licensed registered trademark to Arjuna Natural Pvt Ltd. Protected under US patents 7,883,728; 7,736,679; and 7,879,373.

S3. Preventium® is a registered trademark of Applied Food Sciences, LLC. (US patents 4,845,123, 5,364,644, 5,561,160).



S5. AMINOGEN® is a registered trademark of Innophos

**Directions** 

Blend, shake, or briskly stir 2 level scoops (53 g) into 10-12 ounces chilled, pure water (or mix amount for desired thickness) and consume once daily, or use as directed by your healthcare professional. Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

Formulated To Exclude

Wheat, gluten, yeast, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial

sweeteners, and artificial preservatives.

1,280 mg 2,580 mg 3,400 mg

1,330 mg

2,490 mg

2,120 mg

Tryptophar

300 mg

1,130 mg

1,490 mg

Typical Amino Acid Profile Per Serving:

Cysteine Glutamic Acid

Histidine

Leucine

Lysine

Isoleucine

AMINOGEN® is protected under U.S. patent 5,387,422

‡This formula is not a low-calorie dietary supplement. Please see the Supplement Facts panel for more details.

## References

- 1. Smith RJ, Wilmore DW. Glutamine nutrition and requirements. JPEN J Parenter Enteral Nutr. 1990 Jul-Aug;14(4 Suppl):94S-99S. Review. [PMID: 2119461]
- 2. Lacey JM, Wilmore DW. Is glutamine a conditionally essential amino acid? *Nutr Rev.* 1990 Aug;48(8):297-309. Review. [PMID: 2080048]
  3. Lantz RC, Chen GJ, Sarihan M, et al. The effect of extracts from ginger rhizome on inflammatory mediator production. *Phytomedicine*. 2007 Feb;14(2-3):123-28. [PMID: 16709450]
- 4. Adolphe JL, Whiting SJ, Juurlink BH, Thorpe LU, Alcorn J. Health effects with consumption of the flax lignan secoisolariciresinol diglucoside. Br J Nutr. 2010 Apr; 103(7):929-38. Review. [PMID: 20003621]
- 5. Akhlaghi M, Bandy B. Dietary green tea extract increases phase 2 enzyme activities in protecting against myocardial ischemia-reperfusion. Nutr Res. 2010 Jan;30(1):32-39. [PMID: 201166581
- 6. Linus Pauling Institute. http://lpi.oregonstate.edu/infocenter/othernuts/choline/. Accessed May 8, 2012
- 7. Quatrefolic. http://www.quatrefolic.com/. Accessed May 8, 2012.
- 9. Garg R, Gupta S, Maru GB. Dietary curcumin modulates transcriptional regulators of phase I and phase II enzymes in benzo[a]pyrene-treated mice: mechanism of its anti-initiating action. Carcinogenesis. 2008 May;29(5):1022-32. [PMID: 18321868]
- 10. Amália PM, Possa MN, Augusto MC, et al. Quercetin prevents oxidative stress in cirrhotic rats. Dig Dis Sci. 2007 Oct;52(10):2616-21. [PMID: 17431769]
- 11. Jurenka JS. Anti-inflammatory properties of curcumin, a major constituent of Curcuma longa: a review of preclinical and clinical research. Altern Med Rev. 2009 Jun;14(2):141-53. Review. Erratum in: Altern Med Rev. 2009 Sep;14(3):277. [PMID: 19594223]
- 12. Kelly GS. Clinical applications of N-acetylcysteine. Altern Med Rev. 1998 Apr;3(2):114-27. Review. [PMID: 9577247]

\*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.