## **Bioflavonoid Complex**\* Botanical Antioxidant Protection



T he plant kingdom offers some of nature's most powerful antioxidants—biological molecules that scavenge and neutralize damaging free radicals.

Source Naturals BIOFLAVONOID COMPLEX<sup>™</sup> features outstanding plant antioxidants in a potent defense complex. Often referred to as "specialty bioflavonoids," these premium botanical protectors may have an affinity for specific organs and body systems. BIOFLAVONOID COMPLEX contains botanicals



that support cardiovascular function, circulation, joint and connective tissue, vision, the liver, and the brain and nervous system.

\*The term symptom as used above refers to the effects of nutrient shortages or imbalances and is not related to the diagnosis, treatment, cure, or prevention of any disease.



## **Specialty Bioflavonoids**

Bioflavonoids occur as pigments in plants, where they are found in close association with vitamin C. Together, bioflavonoids and C provide antioxidant protection, helping plants withstand harsh environmental conditions. BIOFLAVONOID COMPLEX features potent botanical extracts, many of them standardized to specific beneficial constituents. Included are bilberry, ginkgo biloba, grape seed, green tea, hawthorn berry, quercetin, and silymarin. The formula is enhanced by the addition of vitamin C as highly bioavailable magnesium ascorbate.





• Grape Seed Extract (Proanthodyn<sup>™</sup>): Grape seed is rich in proanthocyanidins, a special class of antioxidants that are soluble in both water and fat. Proanthocyanidins have been shown in in vitro studies to support the integrity of elastin and collagen, important constituents of joint and connective tissue.

• Green Tea: Green tea extract is a rich source of polyphenols, particularly (-)epigallocatechin gallate (EGCG). EGCG has been found in scientific studies to be a potent antioxidant.

• Quercetin: Quercetin is a unique non-allergenic bioflavonoid present in some foods, such as onions. Human cell culture studies with quercetin have demonstrated its capability to inhibit the release of histamine from mast cells.

• Ginkgo Biloba: Ginkgo, the subject of extensive research, is espe

cially renowned for its ability to promote blood flow to the brain. BIOFLAVONOID COMPLEX features Ginkgo- $24^{\text{TM}}$ , a standardized concentration of prime quality ginkgo leaves, yielding 24% ginkgo flavone glycosides and 6% terpenes (the key constituents) from a 50-to-1 concentration.



• Bilberry: BIOFLAVONOID COMPLEX contains a potent standardized extract of bilberry that contains 37% anthocyanosides. Anthocyanosides have demonstrated significant antioxidant activity, according to in vitro studies. Bilberry has been a staple of European herbal therapy for centuries, and is widely used for supporting normal vision. • Silymarin: Silymarin is the name given to a complex of three compounds—silybum, silycristin, and silymarin extracted from milk thistle seeds. Silymarin has demonstrat-



ed antioxidant activity and the ability to inhibit lipid peroxidation of cell membranes, according to in vitro studies. Silymarin has a special affinity for the liver, which is vital for digestion, detoxification, blood sugar regulation and fat metabolism. • Hawthorn: Hawthorn berries are a highly concentrated source of anthocyanidins and proanthocyanidins. In addition to their roles as free radical scavengers, these flavonoids increase intracellular vitamin C levels and decrease capillary permeability and fragility. Hawthorn is renowned for cardiovascular support.

• Vitamin C: Bioflavonoids are most effective in the presence of vitamin C, the nutrient they are most often paired with in nature. The C in BIOFLAVONOID COMPLEX is bound to the mineral magnesium, a process which minimizes acidity and increases the bioavailability of both nutrients.



## REFERENCES

Armstrong, D., et al. (1984). Free Radicals in Molecular Biology, Aging, and Disease. Raven Press: NY

Braquet, P. ed. (1988). Ginkgolides: Chemistry, Biology, Pharmacology, and Clinical Perspectives. J.R. Prous Science Pub: France.

Busse, W.W., et al. (1984). J Aller and Clinic Immunol, 73:801-809.

Hikino, et al. (1984). Planta Medica 50: 248-50.

Meunier, M.T. et al. (1989). Plantes Med et Phytother, 23(4):267-274.

Packer L. (1994) Ann. N.Y. Acad. Sci. 738: 257-264.

Schmidt, U. et al. (1994). Phytomed 1: 17-24.



## SOURCE NATURALS®

Strategies for Wellness<sup>sm</sup>

The above information has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

© 2002 Source Naturals, Inc., P.O. Box 2118, Santa Cruz, CA 95063 www.sourcenaturals.com LC3056