US005234702A

United States Patent [19]

Katz et al.

[11] Patent Number: 5,234,702

[45] Date of Patent: Aug. 10, 1993

[54] ANTIOXIDANT SYSTEM FOR POWDERED NUTRITIONAL PRODUCTS

[75] Inventors: Gary E. Katz, Columbus; Melinda Guzman-Harty, Gahanna, both of Ohio

[73] Assignee: Abbott Laboratories, Abbott Park, Ill.

[21] Appl. No.: 854,099

[22] Filed: Mar. 19, 1992

[51] Int. Cl.[5] A23L 1/303

[52] U.S. Cl. 426/72; 426/73; 426/311; 426/541; 426/801

[58] Field of Search 426/72, 73, 311, 541, 426/801

[56] References Cited

U.S. PATENT DOCUMENTS

2,307,756	1/1943	Blaso	426/311
2,855,306	10/1958	Rosenberg	426/72
3,998,753	12/1976	Antoshkiw	426/541
4,966,779	10/1990	Kirk	426/73
5,023,095	6/1991	Kirk	426/72
5,043,180	8/1991	Haring	426/541
5,077,069	12/1991	Chang	426/541
5,079,016	1/1992	Tood	426/541
5,084,289	1/1992	Shin	426/541
5,084,293	1/1992	Todd	426/541
5,153,012	10/1992	Ohtaka	426/72

FOREIGN PATENT DOCUMENTS

0198804	10/1986	European Pat. Off.	426/72
2202726	10/1986	European Pat. Off.	426/73
54-155205	12/1979	Japan	426/541
57-143398	9/1982	Japan	426/311
60-102169	6/1985	Japan	426/311

OTHER PUBLICATIONS

Dougherty The Effectiveness of Natural Antioxidants Compared to Synthetic Antioxidants.

Primary Examiner—Carolyn Paden

Attorney, Agent, or Firm—Lonnie R. Drayer; Donald O. Nickey

[57] ABSTRACT

A powdered nutritional product has an oil blend which contains soy oil and/or marine oil. In order to minimize oxidation of the product an antioxidant system of natural ingredients is incorporated therein. The antioxidant system is made up of ascorbyl palmitate, beta carotene and/or mixed tocopherols, and citrate.

18 Claims, No Drawings