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United States Patent [19][11] **Patent Number:** **6,166,071**

Ashmead et al.

[45] **Date of Patent:** **Dec. 26, 2000**[54] **ZINC AMINO ACID CHELATES HAVING LIGANDS COMPRISED OF GLYCINE AND A SULFUR-CONTAINING AMINO ACIDS**[75] Inventors: **Stephen D. Ashmead; David C. Wheelwright**, both of Clearfield, Utah[73] Assignee: **Albion International, Inc.**, Clearfield, Utah[21] Appl. No.: **09/524,399**[22] Filed: **Mar. 13, 2000**[51] Int. Cl.⁷ **A61K 31/315; C07F 3/06; A23K 1/175**[52] U.S. Cl. **514/494; 556/134; 426/74**

[58] Field of Search 556/134; 426/74; 514/494

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Primary Examiner—Porfirio Nazario-Gonzalez
Attorney, Agent, or Firm—Thorpe, North & Western, LLP[57] **ABSTRACT**

A zinc amino acid chelate formulation is disclosed comprising zinc ions being chelated by an amino acid ligand mixture comprising glycine and a sulfur-containing amino acid wherein the ligand to zinc molar ratio is from about 1:1 to 2:1 and wherein the glycine to sulfur-containing amino acid molar ratio is between about 1:5 to 6:1.

37 Claims, No Drawings

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