US005653964A

United States Patent [19]

Herms et al.

[11] **Patent Number: 5,653,964**

[45] **Date of Patent: Aug. 5, 1997**

[54] **DENTINAL DESENSITIZING COMPOSITIONS**

[75] Inventors: **James Keeth Herms**, Jersey City; **Kenneth Joel Markowitz**, Fanwood, both of N.J.

[73] Assignee: **Block Drug Company Inc.**, Jersey City, N.J.

[21] Appl. No.: **448,127**

[22] Filed: **May 23, 1995**

Related U.S. Application Data

[60] Division of Ser. No. 167,558, Dec. 14, 1993, Pat. No. 5,597,552, which is a continuation-in-part of Ser. No. 811, 811, Dec. 20, 1991, Pat. No. 5,270,031.

[51] **Int. Cl.**[6] **A61K 7/16**; A61K 33/00; A61K 33/06; A61C 5/02

[52] **U.S. Cl.** **424/49**; 433/224; 433/226; 433/228.1

[58] **Field of Search** 424/49–58

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,975,102	3/1961	Matsumura et al.	167/93
3,003,988	10/1961	Germann et al.	260/33.6
3,122,483	2/1964	Rosenthal	167/93
3,325,368	6/1967	Wood	167/93
3,772,431	11/1973	Mlkvy, I	424/44
3,863,006	1/1975	Hidosh	424/49
3,888,976	6/1975	Mlkvy, II	424/49
4,138,477	2/1979	Gaffar	424/52
4,296,096	10/1981	Pierce	424/52
4,343,608	8/1982	Hodosh, I	433/224
4,407,675	10/1983	Hodosh, II	106/55
4,758,630	7/1988	Shah et al.	525/207
4,871,531	10/1989	Hartlaub et al. .	
4,906,456	3/1990	Gaffar et al.	424/52
4,931,273	6/1990	Gaffar et al.	424/52
4,933,171	6/1990	Bristow et al.	424/57
4,965,067	10/1990	Wietfeld	424/52
5,013,541	5/1991	Elliott et al.	424/49
5,015,466	5/1991	Parpan et al.	424/52
5,015,467	5/1991	Smitherman	424/52
5,073,604	12/1991	Holeva et al.	525/327.8
5,087,444	2/1992	Jackson et al.	424/49
5,178,869	1/1993	Ebine et al.	424/49
5,188,818	2/1993	Merianos et al. .	
5,211,939	5/1993	Tureski et al.	424/49
5,234,971	8/1993	Imai et al.	523/113
5,240,509	8/1993	Norfleet et al.	424/52
5,240,697	8/1993	Norfleet et al.	424/52
5,250,288	10/1993	Turesky et al.	424/49
5,270,031	12/1993	Lim et al.	424/49
5,328,682	7/1994	Pullen et al.	424/49

FOREIGN PATENT DOCUMENTS

200508	12/1986	European Pat. Off. .	
278744	8/1988	European Pat. Off.	424/52
354447	2/1990	European Pat. Off.	424/52
390456	10/1990	European Pat. Off.	424/52
549281	6/1993	European Pat. Off. .	
2670383	6/1992	France .	
2239601	7/1991	United Kingdom .	

OTHER PUBLICATIONS

Mosen et al Clinical Prevention Density vol. 12 No. 6: 6–12 Jan. 1991 Evaluation of Tartar Control Detjuices in In Vitro Models of Denton Sensitivity.

Primary Examiner—Shep K. Rose

Attorney, Agent, or Firm—Ostrolenk, Faber, Gerb & Soffen, LLP

[57] **ABSTRACT**

A composition containing a water soluble or water swellable polyelectrolyte mixed salt in a dentifrice base or other oral compositions which can be used for relieving pain and discomfort caused by hypersensitive teeth.

17 Claims, No Drawings