United States Patent [19]

Langdon

[11] **4,281,199**

[45] **Jul. 28, 1981**

[54] **POLYALKYLENE POLYAMINE ETHER DERIVATIVES OF POLYOXYALKYLENE COMPOUNDS**

[75] Inventor: **William K. Langdon,** Grosse Ile, Mich.

[73] Assignee: **BASF Wyandotte Corporation,** Wyandotte, Mich.

[21] Appl. No.: **78,544**

[22] Filed: **Sep. 24, 1979**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 866,205, Jun. 3, 1978, abandoned.

[51] **Int. Cl.**[3] **C08G 59/14;** C08G 65/32

[52] **U.S. Cl.** ..... **564/475;** 525/403; 528/405; 528/111; 564/476; 210/736; 162/164 EP

[58] **Field of Search** ..... 260/584 B; 528/405; 525/403; 564/475

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,251,852	5/1966	DeGroote et al.	260/309.6
3,331,788	7/1967	Lorensen et al.	260/2
3,347,803	10/1967	Frotscher et al.	260/2
3,515,698	6/1970	Mauz et al.	260/75
3,691,110	9/1972	Ohfaka et al.	260/2 EP
3,746,678	7/1973	Dick et al.	260/2 A
3,753,931	8/1973	Raspanti	260/2 BP
4,056,510	11/1977	Symm et al.	260/47 EP
4,178,434	12/1979	Langdon	528/405
4,191,820	3/1980	Langdon	528/405

Primary Examiner—Earl A. Nielsen
Attorney, Agent, or Firm—Joseph D. Michaels; Arnold S. Weintraub

[57] **ABSTRACT**

Polyamines are prepared by first reacting a polyoxyalkylene polyol having one to eight active hydrogen sites with an epihalohydrin. The resulting polyether is, then, reacted with an amine to replace the chlorine atoms with amine functions. The polyamines hereof are useful as intermediates for preparing cationic polyelectrolytes, such as drainage aids and the like.

9 Claims, No Drawings