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(21) International Application Number: PCT/US95/15026 (22) International Filing Date: 15 November 1995 (13.11.95) (30) Priority Data: 08/344,905 25 November 1994 (25.11.94) US (71) Applicant: EASTMAN CHEMICAL COMPANY [US/US]; 100 North Eastmann Road, Kingsport, TN 37660 (US). (72) Inventors: MATAYABAS, James, Christopher, Jr.; 3429 Wesley Road, Kingsport, TN 37664 (US). MACKENZIE, Peter, B.; 1040 Sussex Drive, Kingsport, TN 37660 (US). HYATT, John, Anthony; 439 Forest Hills Drive, Kingsport, TN 37663 (US). (74) Agent: THOMSEN, J., Frederick; P.O. Box 511, Kingsport, TN 37662-5075 (US).		(81) Designated States: CA, CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). 86 9701989-7 Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i> RTMP's copy + IPER + Annex.
(54) Title: POLYETHER GLYCOLS AND ALCOHOLS DERIVED FROM 3,4-EPOXY-1-BUTENE, TETRAHYDROFURAN AND AN INITIATOR $\begin{array}{c} \text{---O---CH}_2\text{---CH---} \\ \\ \text{CH=CH}_2 \end{array} \quad (1) \quad \text{---O---CH}_2\text{---CH=CH---CH}_2\text{---} \quad (2) \quad \text{---O---CH}_2\text{---CH}_2\text{---CH}_2\text{---CH}_2\text{---} \quad (3)$ $\begin{array}{c} \text{HO---CH}_2\text{---CH---} \\ \\ \text{CH=CH}_2 \end{array} \quad (4) \quad \text{HO---CH}_2\text{---CH=CH---CH}_2\text{---} \quad (5)$ (57) Abstract Disclosed are novel polyether compounds obtained by the reaction of polymerisation of 3,4-epoxy-1-butene in the presence of tetrahydrofuran, an acidic catalyst and a nucleophilic initiator compound. The polyether compounds comprise m units of residue (1), n units of residue (2), and p units of residue (3) wherein (i) residues (1), (2) and (3) have the structures (1), (2): -O-CH₂-CH=CH-CH₂-, and (3): -O-CH₂-CH₂-CH₂-CH₂-, (ii) the total value of m+n+p is 5 to 70; (iii) the value of n/(m+n+p) is in the range of 0.2 to 0.4, i.e., residue (2) constitutes from 20 to 40 mole percent of the total moles of residues (1), (2) and (3); and (iv) at least 98 percent of the terminal groups have the structure (4) or (5): HO-CH₂-CH=CH-CH₂-.		