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Farncomb et al.

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[54] METHOD OF PREPARING 2,4,4,5,5,6,6-HEPTAFLUORO-2-TRIFLUOROMETHYL-3-OXAHEPTANE-1,7-DIOL POLYFORMAL

[75] Inventors: Robert E. Farncomb, Accokeek; Horst G. Adolph, Burtonsville, both of Md.

[73] Assignee: The United States of America as represented by the Secretary of the Navy, Washington, D.C.

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- (w/w) sulfuric acid in the presence of methylene chloride to produce 2,4,4,5,5,6,6-heptafluoro-2-trifluoromethyl-3-oxaheptane-1,7-diol polyformal; (2) treating the reaction mixture with aqueous H2O2 to destroy free formaldehyde; (3) removing methylene chloride from the reaction mixture; (4) extracting the product 2,4,4,5,5,6,6-heptafluoro-2-trifluoromethyl-3-oxaheptane-1,7-diol polyformal from the reaction mixture with ether; (5) agitating the ether extract with an aqueous solution of (a) H2O2, (b) KOH or NaOH, and (c) NaCl or KCl to convert hemiformal end groups into hydroxy end groups; and (6) isolating the product 2,4,4,5,5,6,6-heptafluoro-2-trifluoromethyl-3-oxaheptane-1,7-diol polyformal.

6 Claims, No Drawings

Primary Examiner—John F. Terapane
Assistant Examiner—J. E. Thomas
Attorney, Agent, or Firm—Kenneth E. Walden; Roger D. Johnson

[57] ABSTRACT

A process for preparing 1,4,4,5,5,6,6-heptafluoro-2-trifluoro-3-oxaheptane-1,7-diol polyformal by the following steps in order:

- (1) reacting 2,4,4,5,5,6,6-heptafluoro-2-trifluoromethyl-3-oxaheptane-1,7-diol with formaldehyde in 80-90%

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