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(54) Title: METHOD FOR PRODUCING SHORT-CHAIN POLYFUNCTIONAL POLYETHER POLYOLS UTILIZING SUPER-ACID AND DOUBLE-METAL CYANIDE CATALYSIS

(57) Abstract: A two stage alkoxylation process for preparing a short-chain polyether polyol from a starter compound comprising from 3 to 9 hydroxyl groups and at least one alkylene oxide, wherein said starter compound has a hydroxy equivalent weight of from 22 to 90 Da. Said process comprises a first stage alkoxylation using a superacid catalyst to prepare an oligomeric alkoxylated starter compound that is further alkoxylated to the short-chain polyether polyol of the invention in a second stage using a DMC catalyst. The process of the present invention may be performed continuously, in a batch, or semi-batch process.

