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(71) Applicant: **EVONIK OPERATIONS GMBH** [DE/DE];
Rellinghauser Strasse 1-11, 45128 Essen (DE).

(72) Inventors: **WIEDERHOLD, Holger**; Stockhausenweg
49, 64297 Darmstadt (DE). **BOLZ, David**; Stegstraße 81,
60594 Frankfurt (DE). **GLENNEBERG, Jürgen**; Bieberer
Str. 37, 63065 Offenbach (DE).

(74) Agent: **EVONIK PATENT ASSOCIATION**; c/o Evonik
Industries AG, IP Management, Bau 1042A, PB15, Paul-
Baumann-Strasse 1, 45772 Marl (DE).

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(54) Title: A METHOD FOR THE PREPARATION OF 1,2-PROPANEDIOL, DIPROPYLENE GLYCOL AND TRIPROPYLENE GLYCOL

(57) Abstract: The method for preparing 1,2-propanediol, dipropylene glycol and tripropylene glycol comprises step a) of reacting propene with hydrogen peroxide containing nitrate in the presence of a catalyst mixture comprising a phase transfer catalyst and a heteropolytungstate in a liquid reaction mixture comprising an aqueous phase with a maximum apparent pH of 6 and an organic phase; step b) of separating the reaction mixture into an aqueous phase comprising 1,2-propanediol, dipropylene glycol, tripropylene glycol and nitrate and an organic phase; step c) of recycling at least part of the separated organic phase to the reaction step a); step d) of hydrogenating the separated aqueous phase using a heterogeneous hydrogenation catalyst to provide a hydrogenated aqueous phase with a reduced nitrate content; and step e) of recovering 1,2-propanediol, dipropylene glycol and tripropylene glycol from the hydrogenated aqueous phase by a sequential multiple step distillation.



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