

Method for producing propylene glycol from propene and hydrogen peroxide

Abstract:

The process for preparing 1,2-propanediol from propene and hydrogen peroxide comprises the steps of

- 5 a) reacting propene with hydrogen peroxide in the presence of a catalyst mixture comprising a phase transfer catalyst and a heteropolytungstate, wherein the reaction is carried out in a liquid mixture comprising an aqueous phase having a pH of at most 6 and an organic phase,
- b) separating the biphasic mixture from step a) into an aqueous phase and an organic phase
10 comprising propene oxide,
- c) recycling the propene oxide present in the separated organic phase into the reaction of step a) and
- d) separating 1,2-propanediol from the aqueous phase separated in step b).

Fig. 1