

## ABSTRACT

### PROCESS FOR THE PRODUCTION OF ETHYLENE GLYCOL

A process for preparing alkylene glycols including reacting an alkylene oxide with water in the presence of a combination of additives and an anion exchange resin, wherein the combination of additives comprises carbon dioxide and an organic or inorganic base provided in an amount sufficient to maintain a pH of the reaction mixture between about 5.0 and 9.0, with the proviso that, when the base is bicarbonate or carbonate, then the anion exchange resin is a trimethyl benzyl ammonium anion exchange resin. A particularly preferred method of this invention is to react ethylene oxide with water in the presence of a halogenate or bicarbonate-type anionic exchange resin (such as a DOWEX<sup>TM</sup> MSA-1 type resin), carbon dioxide, and sodium hydroxide. Some advantages of this invention are that it provides desirable catalyst lifetime and activity, minimizes resin swelling, and provides a desirable, sustained selectivity to alkylene glycol.



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