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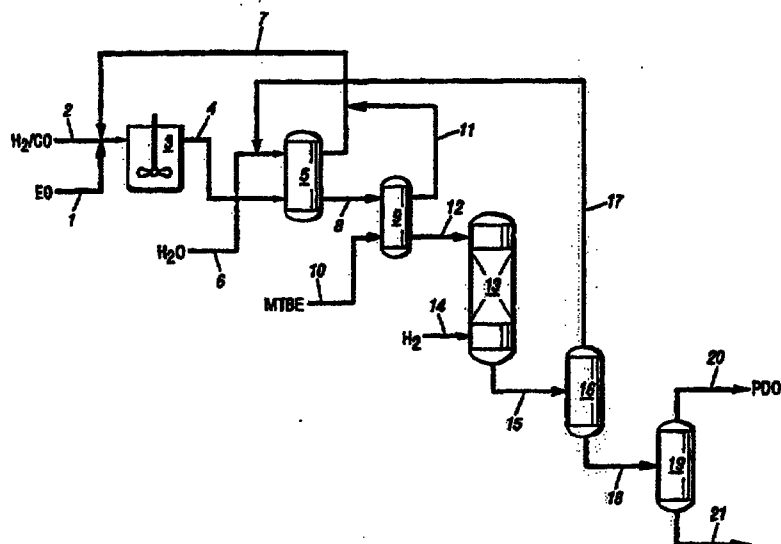
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(54) Title: PROCESS FOR PREPARING 1,3-PROPANEDIOL



(57) Abstract

1,3-Propanediol is prepared in a process in which ethylene oxide is reacted with carbon monoxide and hydrogen in an essentially non-water-miscible solvent in the presence of an effective amount of a non-phosphine-ligated cobalt catalyst and an effective amount of a catalyst promoter under reaction conditions effective to produce an intermediate product mixture comprising less than 15wt.% 3-hydroxypropanal. The 3-hydroxypropanal is extracted in water from the product mixture in more concentrated form, with the majority of the cobalt catalyst remaining in the solvent phase for recycle to the hydroformylation reaction. At least a portion of any residual catalyst in the water phase following extraction is removed by re-extraction with non-water-miscible solvent and recycled to hydroformylation. The 3-hydroxypropanal is then hydrogenated in aqueous solution to the desired 1,3-propanediol.