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(54) Title: SHUTDOWN METHOD FOR A PROCESS FOR PREPARING AN OLEFIN OXIDE

(57) Abstract: In a first aspect, the present invention relates to a shutdown method for a process for preparing an olefin oxide comprising a normal run stage, wherein the normal run stage comprises providing olefin, hydrogen peroxide and organic solvent into an epoxidation zone comprising a heterogeneous epoxidation catalyst, so that a reaction mixture comprising olefin, hydrogen peroxide and organic solvent is formed and subjecting the reaction mixture to epoxidation reaction conditions in the epoxidation zone, thereby obtaining a mixture comprising olefin oxide and organic solvent; wherein the shutdown method comprises (a) providing olefin and organic solvent for a period of time t1 to the epoxidation zone, so that a mixture is formed, which is essentially free of hydrogen peroxide; (b) contacting the mixture from (a) over t1 under epoxidation reaction conditions in the epoxidation zone with the heterogeneous epoxidation catalyst; (c) removing during t1 an effluent stream from the epoxidation zone, the effluent stream comprising olefin and organic solvent. In a second aspect, the present invention relates to a process for preparing an olefin oxide comprising a normal run stage and a shutdown stage, wherein the normal run stage comprises (A) providing olefin, hydrogen peroxide, water and organic solvent into an epoxidation zone comprising a heterogeneous epoxidation catalyst, so that a reaction mixture comprising olefin, hydrogen peroxide, water and organic solvent is formed; (B) subjecting the reaction mixture from (I) to epoxidation reaction conditions in the epoxidation zone, thereby obtaining a mixture comprising olefin oxide, water and organic solvent; (C) removing an effluent stream from the epoxidation zone, comprising olefin oxide, water and organic solvent; wherein the shutdown stage comprises steps (a), (b) and (c) as described with respect to the first aspect.



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