



ABSTRACT

A process for producing propylene oxide, which comprises the following steps below, and a step for removing alcohols of the carbon number of 2 to 3, cyclohexanol and/or isopropylcyclohexane outside of the reaction system in at least one place of the steps or between which the steps are connected:

oxidation step: a step of obtaining cumene hydroperoxide by oxidizing cumene;

epoxidation step: a step of obtaining propylene oxide and cumyl alcohol by reacting cumene hydroperoxide obtained in the oxidation step with propylene in an excess amount in a liquid in the presence of a solid catalyst; and

hydrogenolysis step: a step of obtain cumene by subjecting cumyl alcohol obtained in the epoxidation step to hydrogenolysis, and recycling the cumene to the oxidation step as the raw material for the oxidation step.