ABSTRACT

A process for purifying propylene oxide, which comprises using a liquid reaction mixture containing propylene oxide, and water, hydrocarbons and oxygen-containing organic compounds as impurities obtained by reacting cumene hydroperoxide with propylene, as a liquid raw material, and separating and recovering propylene oxide from the liquid raw material, wherein the process comprises the following steps:

first step; a step of subjecting the liquid raw material to extractive distillation using a hydrocarbon of 7 to 10 carbons as an extractant to separate into the overhead stream containing most of water and the oxygen-containing impurities and the bottom stream containing propylene oxide, the hydrocarbons and the extractant,

second step; a step of subjecting the bottom stream to extractive distillation using a hydrocarbon of 7 to 10 carbons as an extractant to separate into the overhead containing propylene oxide and the bottom stream containing hydrocarbons and the extractant, and

third step; subjecting the extractant used in the first step and/or second step to distillation to purify the extractant,

wherein the bottom temperature of the distillation column or extractive distillation column in each of the steps is 130℃ or lower.