ABSTRACT

A process for producing purified propylene oxide comprising:

first to sixth steps below ,and

using heat of reaction generated in the first and/or second steps as a heat source for rectification in the fifth step and/or a heat source for rectification in the sixth step:

first step: a step of obtaining cumene hydroperoxide trough oxidation of cumene,

second step: a step of obtaining propylene oxide and cumyl alcohol by reacting cumene hydroperoxide with propylene in the presence of an epoxidation catalyst,

third step: a step of separating into a fraction(2) containing crude propylene oxide and a fraction (3) containing crude propylene by subjecting an outlet liquid(1) of the second step to rectification,

fourth step: a step of obtaining a fraction (4) containing crude propylene oxide and a fraction(6)containing cumyl alcohol by subjecting the fraction (2) to rectification,

fifth step: a step of obtaining a fraction(7) containing purified propylene oxide by subjecting the fraction(4) to rectification, and

sixth step: a step of obtaining a fraction(5) containing purified propylene by subjecting the fraction(3) to rectification.