

ABSTRACT

[Problem] To provide a method by which an amount of production of ethylene glycol as a by-product is reduced and a yield of ethylene oxide can be improved in a process for producing ethylene oxide.

[Solution] An embodiment of the present invention relates to a method for producing ethylene oxide. The method for producing ethylene oxide includes: supplying an ethylene oxide-containing reaction product gas produced in an ethylene oxidation reaction step, in which ethylene is subjected to catalytic gas-phase oxidation using a molecular oxygen-containing gas in the presence of a silver catalyst, to an ethylene oxide absorption column; bringing the reaction product gas into contact with an absorption liquid supplied to the ethylene oxide absorption column; supplying an ethylene oxide-containing column bottom liquid of the ethylene oxide absorption column to an ethylene oxide purification system; and supplying an ethylene oxide-containing uncondensed gas discharged from the ethylene oxide purification system to an ethylene oxide reabsorption column. In the method, an operation pressure of the ethylene oxide reabsorption column is set to 3 to 50 kPa gauge.