

EPOXIDATION REACTIONS AND OPERATING CONDITIONS THEREOF

ABSTRACT

- 5 A method of producing an alkylene oxide includes passing a reaction mixture comprising alkylene, oxygen and a gaseous chlorine-containing promoter species over a supported catalyst containing silver and a promoting amount of rhenium to undergo an epoxidation reaction at a first operating condition. The method further includes subsequently performing the epoxidation reaction at a preferred operating condition. The preferred operating condition
- 10 is characterized by an efficiency of the epoxidation reaction toward the alkylene oxide where the efficiency is lower than that of a maximum efficiency achievable at an operating temperature corresponding to the preferred operating condition.

(Fig. 1)