

BETA-MERCAPTOETHANOL SYNTHESIS

Abstract

A process includes reacting, in a reactor having a fixed bed containing a solid catalyst which contains a heterogeneous ion exchange resin, hydrogen sulfide and ethylene oxide in the presence of the solid catalyst to yield a reaction product which contains beta-mercaptoethanol. A reactor system includes the reactor, an ethylene oxide stream, a hydrogen sulfide stream, a fixed bed containing the solid catalyst placed in the reactor, and an effluent stream containing the reaction product. During steady state operation of the reactor in the process and the reactor system, the hydrogen sulfide and the ethylene oxide are present in a mole ratio in a range of about 9:1 to about 20:1.

[No Figure]