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(54) Title: PROCESS FOR RECOVERING 3,4–EPOXY–1–BUTENE

(57) Abstract

A process for recovering 3,4–epoxy–1–butene from a vapor phase catalytic oxidation reactor effluent where 1,3–butadiene is reacted with oxygen over a silver catalyst, the process includes the steps of contacting the reactor effluent with an absorbent in an absorber and vaporizing in the absorber an effective amount of a non–reactive coolant to cool the absorber to a temperature of less than about 40 °C and a pressure of less than about 4 bar. Advantageously, the vaporization of the non–reactive coolant proximate to the absorber allows the absorber to be operated at lower temperatures and pressures than heretofore possible and provides a further advantage of allowing higher O_2 concentrations in the feed to the epoxidation reactor.