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(54) Title: PROCESS FOR PRODUCING PHENOL AND METHYL ETHYL KETONE

(57) Abstract: A process for producing phenol and methyl ethyl ketone comprises contacting benzene with a C₄ alkylating agent under alkylation conditions with catalyst comprising zeolite beta or a molecular sieve having an X-ray diffraction pattern including d-spacing maxima at 12.4±0.25, 6.9±0.15, 3.57±0.07 and 3.42±0.07 Angstrom to produce an alkylation effluent comprising sec-butylbenzene. The sec-butylbenzene is then oxidized to produce a hydroperoxide and the hydroperoxide is decomposed to produce phenol and methyl ethyl ketone.

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