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(54) Title: PROCESS FOR MANUFACTURING ETHYLBENZENE OR CUMENE			
(57) Abstract			
<p>The production of ethylbenzene from dilute ethylene and dilute benzene is accomplished in three steps. First, the benzene feedstock stream, containing benzene, is alkylated with the dilute ethylene feedstock stream, containing ethylene, to form ethylbenzene along with polyethylbenzenes (PEB) which includes a mixture of di- and triethylbenzene that may also contain tetra-, penta-, and hexaethylbenzenes. Second, the product of the first step is distilled to remove the unreacted benzene and other unreacted material. Some of the ethylbenzene is recovered by distillation. In a third step, the polyethylbenzenes are transalkylated with excess pure benzene to form product ethylbenzene. The product ethylbenzene may be recovered by distillation. This process utilizing dilute benzene feedstock may also be applied to the manufacture of cumene, rather than ethylbenzene, by using a dilute propylene feedstock stream, rather than a dilute ethylene feedstock stream. Catalysts used for the alkylation and transalkylation step are supported heteropolyacid catalysts such as phosphotungstic acid on a silica support or Y zeolite catalyst in the acid form.</p>			