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(54) Title: DIRECT EPOXIDATION PROCESS USING IMPROVED CATALYST

(57) Abstract: A supported catalyst and a catalyst mixture, useful for the direct epoxidation of olefins, are disclosed. The supported catalyst comprises a noble metal, lead, and a carrier that has been treated by contacting with nitric acid. The catalyst mixture comprises a titanium or vanadium zeolite and the supported catalyst. The invention also includes a process for producing an epoxide comprising reacting an olefin, hydrogen and oxygen in the presence of the catalyst mixture. The process results in significantly reduced alkane byproduct formed by the hydrogenation of olefin.



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