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(54) Title: PROCESS FOR THE HYDROFORMYLATION OF ETHYLENICALLY UNSATURATED COMPOUNDS IN THE PRESENCE OF AN ACID AND A MONO TERT-PHOSPHINE

(57) Abstract: The invention pertains to a process for the hydroformylation of an ethylenically unsaturated compound in the presence of an acid with a $pK_a < +3$, and a catalyst of a group VIII metal and a bidentate ligand of the formula: $R_1R_2-P-X-P-R_3R_4$ (I) wherein P is a phosphorus atom, X represents a bivalent organic bridging group, R_1 , R_2 , R_3 and R_4 represent independently a substituted or unsubstituted hydrocarbonyl group, or R_1 and R_2 together with the phosphorus atom to which they are bonded and/or R_3 and R_4 together with the phosphorus atom to which they are bonded represent a bivalent substituted or unsubstituted cyclic group, characterized in that the process is performed in the presence of a mono tert-phosphine, wherein the ratio moles of mono tert-phosphine : moles of acid is from 1 : 1 to 10 : 1.

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