

Title (en)
METHOD FOR PRODUCING BUTENYL ETHERS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON BUTENYLETHERN

Title (fr)
PROCEDE POUR LA PREPARATION DE BUTENYLETHERS

Publication
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Application
EP 98932124 A 19980605

Priority
• DE 19725872 A 19970618
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Abstract (en)
[origin: DE19725872A1] The invention relates to a method for producing butenyl ethers of formula (I) $\text{CH}_3\text{-CH=CH-CH}_2\text{-OH}$ by reacting butadiene or hydrocarbon flows containing butadiene with alcohols of formula (II) ROH at a high temperate and high pressure in the presence of transition metal complexes containing ligands or compounds of elements of group V of the periodic table of elements to form an isomeric mixtures consisting of butenyl ethers of formula (I) and butenyl ethers of formula (III) $\text{CH}_2\text{=CH-CH(OR)-CH}_3$ and by optionally isomerizing butenyl ethers of formula (III) into butenyl ethers of formula (I), wherein R stands for an alkyl or alkenyl group with 1 to 20 C atoms, an aryl group with 6 to 10 C atoms or an aralkyl group with 7 to 11 C atoms and the radicals R can be substituted by hydroxy or alkoxy groups, whereby a complex of a transition metals from group (VIII) of the periodic table of elements is used as a catalyst with ligands of formula (IV), wherein M stands for an iron, cobalt, nickel or ruthenium ion, X is a binding link in the form of an optionally substituted methylene or alkyl substituted silylene group, wherein n is 0 to 3, $\text{R}_{<1>}$ to $\text{R}_{<4>}$ mean independent from each other and also independent from each other in both cyclopentadiene radicals hydrogen or alkyl, cycloalkyl, aryl or aralkyl radicals with up to 40 C atoms or can be part of an isocyclic or heterocyclic ring system, wherein both cyclopentadiene radicals can be bridged by the radicals $\text{R}_{<1>}$ to $\text{R}_{<4>}$, Y means nitrogen, arsenic, antimony or phosphorous and the radicals $\text{R}_{<5>}$ and $\text{R}_{<6>}$ mean independently and also independently from each other in both molecules of the sandwich complex hydrogen or alkyl, cycloalkyl, aryl or aralkyl groups with up to 24 C atoms.

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