

Title (en)
PROCESS TO PREPARE PARAFFINS AND WAXES

Title (de)
VERFAHREN ZUR HERSTELLUNG VON PARAFFINEN UND WACHSEN

Title (fr)
PROCÉDÉ POUR PRÉPARER DES PARAFFINES ET DES CIRES

Publication
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Application
EP 16762760 A 20160901

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• EP 2016070617 W 20160901

Abstract (en)
[origin: WO2017037177A1] The present invention relates to a process to prepare paraffins and waxes from a gas mixture comprising hydrogen and carbon monoxide in at least two conversion reactors, being a first and second reactor, said reactors comprising catalysts, which process at least comprises the following steps: (a) providing the gas mixture to one or more conversion reactors; (b) catalytically converting the gas mixture of step (a) at an initial reaction condition to obtain an initial Fischer-Tropsch product comprising paraffins having from 5 to 300 carbon atoms; (c) combining the initial Fischer-Tropsch product streams from each of the at least two reactors of step (b) to obtain a combined Fischer-Tropsch product stream; (d) subjecting the combined Fischer-Tropsch product stream of step (c) to a hydrogenation step to obtain a hydrogenated Fischer-Tropsch product stream; (e) separating the hydrogenated Fischer-Tropsch product stream of step (d), thereby obtaining at least a fraction comprising 5 to 9 carbon atoms, a fraction comprising 10 to 17 carbon atoms and a fraction comprising 18 to 300 carbon atoms; (f) separating the hydrogenated fraction comprising 18 to 300 carbon atoms of step (e), thereby obtaining one or more light waxes having a congealing point in the range of 30 to 75°C and a heavy wax having a congealing point in the range of 75 to 120°C, wherein subsequently the relative concentration of the fraction comprising 5 to 9 carbon atoms, the fraction comprising 10 to 17 carbon atoms, the concentration of the light waxes and the concentration of the heavy waxes is changed by raising, lowering or maintaining the reaction temperature of at least one of the reactors.

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