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(54) Title: INTEGRATED PROCESS FOR SIMULTANEOUS PREPARATION OF ALKALI METAL METHOXIDES

(57) Abstract: In a first aspect, the present invention relates to an integrated process for simultaneously preparing n mixtures P(i) comprising alkali metal methoxide and methanol, the process comprising preparing the one or more alkali metal methoxides in n reactive distillation column K(i) under reactive distillation conditions from n streams H(i) and n streams G(i) comprising methanol, thereby obtaining n top streams W(i) comprising methanol and water; and obtaining n bottoms streams P(i) comprising alkali metal methoxide A(i)OMe and methanol; the process further comprising preparing at least three streams G, T(1a) and T(1b) from a vapor phase V from the top of a rectification column D, wherein at least a part of the stream T(1a) is passed as a heating medium through an intermediate reboiler V(1a) of the rectification column D, obtaining a stream TC(1a), and at least a part of the stream T(1b) is passed as a heating medium through a bottom reboiler V(1b) of the rectification column D, obtaining a stream TC(1b), wherein one or more of at least a part of one or more of the top streams W(i), at least a part of the stream TC(1a), and at least a part of the stream TC(1b) are fed (back) into the rectification column D. In a second aspect, the invention relates to a chemical production unit for carrying out the process according to the first aspect; and a third aspect of the invention is related to the Use of the chemical production unit according to the second aspect or of the process according to the first aspect for simultaneously producing n mixtures P(i) comprising alkali metal methoxide and methanol.

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