

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/005357 A1

- (51) International Patent Classification⁷: **C07C 37/08**, 37/74, B01D 3/14, 3/32
- (21) International Application Number:
PCT/EP2004/007277
- (22) International Filing Date: 3 July 2004 (03.07.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
03015187.2 4 July 2003 (04.07.2003) EP
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR THE PREPARATION OF PHENOLIC COMPOUNDS, FOR SEPARATING PHENOL FROM CLEAVAGE PRODUCT MIXTURES, AND AN APPARATUS

(57) Abstract: To improve energy efficiency of prior art processes while preserving the standards of quality and total yield of desired end products, a process for the preparation of phenolic compounds is proposed comprising working-up of the cleavage product mixtures by distillation, which comprises resolving the cleavage product mixture into at least three fractions in a single distillation step by feeding the cleavage product mixture to the side of a distillation column, removing a first fraction comprising the ketone at the top of the distillation column, removing a second fraction comprising the phenolic compound at the bottom of the distillation column, and removing a third fraction comprising unreacted the alkylaryl compound and the hydroxy ketone, and water, as side stream, whereby the side stream take-off is situated above the feed of cleavage product mixture to the distillation column, characterized by removing heat from the distillation column, whereby the heat take-off is situated above the side stream take-off of the third fraction, and a process for separating phenol from cleavage product mixtures, wherein the cleavage product mixture prior feeding into the distillation column, is preheated to a temperature of above 100 °C at standard pressure, preferably to a temperature between 110 °C and 180 °C, most preferred to a temperature of about 140 °C to 146 °C, and an apparatus suitable therefore.



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