

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 April 2022 (28.04.2022)



(10) International Publication Number
WO 2022/084060 A1

(51) International Patent Classification:
C07C 29/48 (2006.01) C07C 31/20 (2006.01)

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

(21) International Application Number:
PCT/EP2021/077754

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))

(22) International Filing Date:
07 October 2021 (07.10.2021)

Published:

— with international search report (Art. 21(3))
— with amended claims (Art. 19(1))

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20202983.1 21 October 2020 (21.10.2020) EP

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,

(54) Title: A METHOD FOR INCREASING PROPYLENE OXIDE OUTPUT OF AN INTEGRATED PROCESS FOR MAKING
PROPYLENE OXIDE AND PROPYLENE GLYCOL

(57) Abstract: The propylene oxide output of an integrated process for making propylene oxide and propylene glycol, which comprises a step a) of reacting propene with an oxidant to provide propylene oxide, a step b) of reacting a fraction of the propylene oxide provided in step a) with water to provide an aqueous glycol solution comprising monopropylene glycol and dipropylene glycol and a step c) of separating monopropylene glycol and dipropylene glycol from said aqueous glycol solution by a multi-step distillation, can be increased without increasing the capacity of the unit for reacting propene to propylene oxide in step a) by adding a step d) of reacting propene and hydrogen peroxide in the presence of a catalyst mixture comprising a phase transfer catalyst and a heteropolytungstate in a liquid reaction mixture which comprises an aqueous phase with a maximum apparent pH of 6 and an organic phase, and a step e) of separating the liquid reaction mixture provided by step d) into an organic phase, which is recycled to step d), and an aqueous phase comprising monopropylene glycol and dipropylene glycol, which is passed to step c) replacing aqueous glycol solution provided by step b).



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