

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/016585 A1

(51) International Patent Classification⁷: **C07C 409/08**

(21) International Application Number:
PCT/US2003/023116

(22) International Filing Date: 24 July 2003 (24.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/219,417 15 August 2002 (15.08.2002) US

(71) Applicant: **ARCO CHEMICAL TECHNOLOGY, L.P.**
[US/US]; Two Greenville Crossing, 4001 Kennett Pike,
Suite 238, Greenville, DE 19807 (US).

(72) Inventors: **WILLIAMS, Carl, L.**; 3003 Memorial Court,
#2341, Houston, TX 77007 (US). **LIN, Shaw-Chan**; 1213

Anna Road, West Chester, PA 19380 (US). **LEYSHON, David, W.**; 408 Trio Lane, West Chester, PA 19382 (US). **CANDELA, Lawrence, M.**; 18 North Morgan Avenue, Havertown, PA 19083 (US).

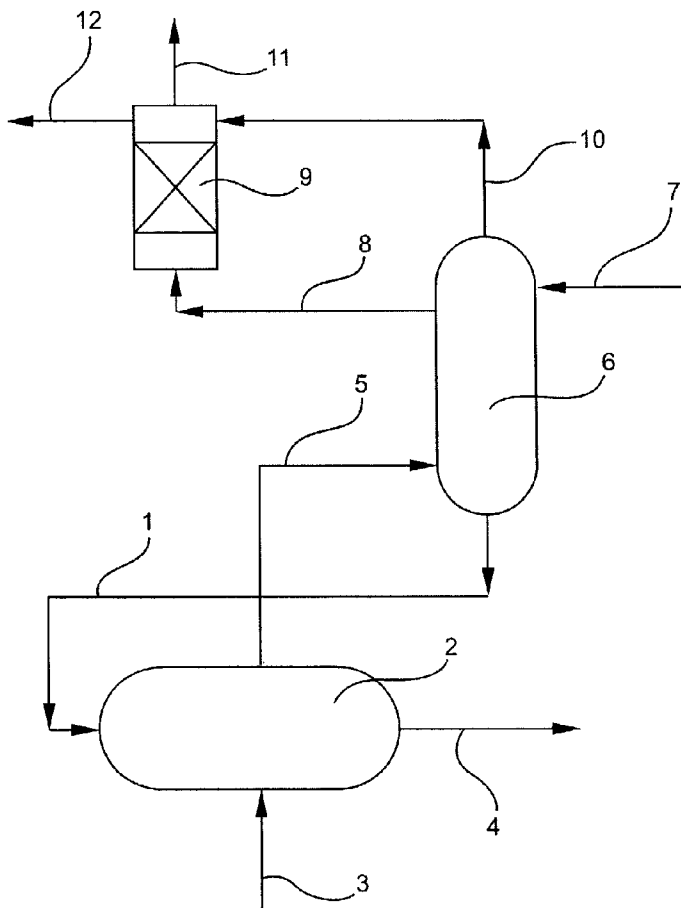
(74) Agents: **CARROLL, Kevin, M.** et al.; Lyondell Chemical Company, 3801 West Chester Pike, Newtown Square, PA 19073 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: PEROXIDE IMPURITIES REMOVAL



(57) Abstract: A propylene oxide/styrene monomer aqueous purge stream is contacted with a catalyst at conditions effective to decompose peroxides contained therein, and oxygen formed by the decomposition swept from the decomposition with a nitrogen vapor stream from ethylbenzene oxidation.



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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.

Published:

— *with international search report*