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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 June 2013 (27.06.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/096425 A3

(51) **International Patent Classification**:
A61Q 11/00 (2006.01) *A61K 8/44* (2006.01)
A61Q 19/10 (2006.01)

(21) **International Application Number**:
PCT/US2012/070572

(22) **International Filing Date**:
19 December 2012 (19.12.2012)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
61/577,555 19 December 2011 (19.12.2011) US

(71) **Applicant**: **COLGATE-PALMOLIVE COMPANY** [US/US]; 300 Park Avenue, New York, New York 10022 (US).

(72) **Inventors**: **XU, Guofeng**; 40 Silvers Lane, Plainsboro, New Jersey 08536 (US). **MILLER, Steven**; 66 Sycamore Lane, Skillman, New Jersey 08558 (US). **GRONLUND, Jennifer**; 16 Hamilton Street, Flemington, New Jersey 08822 (US).

(74) **Agents**: **HEBLE, Nikhil A.** et al.; Colgate-Palmolive Company, 909 River Road, P.O. Box 1343, Piscataway, New Jersey 08854-1343 (US).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, 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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) **Date of publication of the international search report**:
27 March 2014

WO 2013/096425 A3

(54) **Title**: LIQUID ACTIVATION SYSTEM

(57) **Abstract**: Described herein are compositions comprising an unactivated liquid, an immobilized sparingly soluble acid or base, such that during storage the unactivated liquid is not in contact with the immobilized sparingly soluble acid or base, but upon use, the unactivated liquid contacts the immobilized sparingly soluble acid or base, whereby the pH of the liquid is altered, thereby activating the liquid to provide a benefit; together with variant and alternative designs, methods of making and using the compositions, and components thereof.