

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 May 2008 (22.05.2008)

PCT

(10) International Publication Number
WO 2008/060888 A2

(51) International Patent Classification:
C08F 8/44 (2006.01)

(74) Agents: HILKER, Christopher, D. et al.; 29400 Lakeland Blvd., Wickliffe, OH 44092-2298 (US).

(21) International Application Number:
PCT/US2007/083693

(22) International Filing Date:
6 November 2007 (06.11.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/557,986 9 November 2006 (09.11.2006) US

(71) Applicant (for all designated States except US): THE LUBRIZOL CORPORATION [US/US]; 29400 Lakeland Blvd., Wickliffe, OH 44092-2298 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MORETON, David, J. [GB/GB]; P.O. Box 88, Belper Derby DE56 1QN (GB). STEVENSON, Paul, R. [GB/GB]; P.O. Box 88, Belper Derby DE56 1QN (GB). THETFORD, Dean [GB/GB]; P.O. Box 88, Belper Derby DE56 1QN (GB). VILARDO, Jonathan, S. [US/US]; 29400 Lakeland Blvd., Wickliffe, OH 44092-2298 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, IS, IT, LT, LU, LV, MC, MT, 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:

— without international search report and to be republished upon receipt of that report

(54) Title: QUATERNARY AMMONIUM SALT OF A POLYALKENE-SUBSTITUTED AMINE COMPOUND

(57) Abstract: A quaternary ammonium salt detergent made from the reaction product of the reaction of: (a) polyalkene-substituted amine having at least one tertiary amino group; and (b) a quaternizing agent suitable for converting the tertiary amino group to a quaternary nitrogen and the use of such quaternary ammonium salt detergents in a fuel composition to reduce intake valve deposits.



WO 2008/060888 A2