

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 February 2012 (16.02.2012)

PCT

(10) International Publication Number
WO 2012/019301 A2

(51) International Patent Classification:
C08L 23/36 (2006.01)

(21) International Application Number:
PCT/CA2011/050486

(22) International Filing Date:
11 August 2011 (11.08.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/373,379 13 August 2010 (13.08.2010) US

(71) Applicant (for all designated States except US):
LANXESS INC. [CA/CA]; 1265 Vidal Street South, Sarnia, Ontario N7T 7M2 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ADKINSON, Dana, K.** [CA/CA]; 113 Whisperwood Avenue, London, Ontario N6K 4C1 (CA). **KRISTA, Rayner** [CA/CA]; 21 Locke Heights, Stratroy, Ontario N7G 3X1 (CA). **RESENDES, Rui** [CA/CA]; 1456 Hanover Drive, Kingston, Ontario K7P 0B5 (CA).

(74) Agent: **MBM INTELLECTUAL PROPERTY LAW LLP**; 270 Albert Street, Ottawa, Ontario K1P 5G8 (CA).

(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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: BUTYL IONOMER LATEX

(57) Abstract: The invention relates to a latex composition wherein the latex composition comprises a butyl ionomer or partially halogenated butyl rubber ionomer. The latex composition is formed by dissolving the butyl ionomer in a suitable solvent, emulsifying the polymer in the solvent, adding water and optionally a minor amount of a suitable surfactant system to the emulsion and concentrating the emulsion to remove the water. The advantages of butyl ionomer latex include lower emulsifier levels, increased latex stability, improved interaction and adhesion to polar substrates and surfaces. Through the judicious choice of emulsifiers and/or washing to remove excess emulsifier a film with enhanced non-extractable polymeric antimicrobial function can be created. These properties of ionomer latex are useful in coatings, dipped goods and sponge applications.



WO 2012/019301 A2