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(21) International Application Number: PCT/EP00/00160 (22) International Filing Date: 12 January 2000 (12.01.00) (30) Priority Data: 9901597.6 26 January 1999 (26.01.99) GB (71) Applicant (for all designated States except US): CIBA SPECIALTY CHEMICALS WATER TREATMENTS LIMITED [GB/GB]; Cleckheaton Road, Low Moor, Bradford, West Yorkshire BD12 0JZ (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): DONNELLY, Simon [GB/GB]; 26 Pasture Road, Baildon, Shipley, West Yorkshire BD17 6QP (GB). STOCKWELL, John, Robert [GB/GB]; 21 Low Bank, Embsay, Skipton, North Yorkshire BD23 6SQ (GB). PLONKA, John [GB/GB]; 9 Derby Road, Rawden, Leeds, West Yorkshire LS19 6JB (GB). (74) Common Representative: CIBA SPECIALTY CHEMICALS WATER TREATMENTS LIMITED; Patents Department, Cleckheaton Road, Low Moor, Bradford, West Yorkshire BD12 0JZ (GB).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: AQUEOUS POLYMERIC EMULSION COMPOSITIONS AND THEIR USE FOR THE SIZING OF PAPER		
(57) Abstract A method of sizing paper by applying a composition comprising an aqueous dispersion of polymeric particles of particle size up to 1 micron, preferably 80–200 nm, wherein the polymeric particles comprise a water insoluble polymer matrix, preferably formed from styrene and 2-ethylhexyl acrylate, characterised in that an oligomer formed from a monomer blend comprising, (a) (meth)acrylamide, and (b) organic mercaptan or an organic sulphone, preferably dodecyl mercaptan or dodecyl sulphone is located at the surface of the particles. Compositions where the oligomer further comprises an ethylenically unsaturated monomer comprising either a tertiary amine group or a quaternary ammonium group, preferably dimethylaminoethylmethacrylate are novel. Advantages of the composition when applied to the surface of paper, include improved water resistance, brightness and printability properties of the treated paper.		