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(21) International Application Number: PCT/US96/10662 (22) International Filing Date: 21 June 1996 (21.06.96) (30) Priority Data: 08/493,881 ✓ 23 June 1995 (23.06.95) US (71) Applicant: CPC INTERNATIONAL INC. [US/US]; International Plaza, P.O. Box 8000, Englewood Cliffs, NJ 07632-9976 (US). (72) Inventors: MENTZER, Merle, J.; 11609 Kluth Drive, Mokena, IL 60448 (US). PIAZZA, Eduardo, A.; Juan B. Justo 856, 2942 Baradero (AR). (74) Agent: TREVORS, Ellen, P.; CPC International Inc., Patent Dept., P.O. Box 8000, Englewood Cliffs, NJ 07632-9976 (US).		(81) Designated States: AL, AM, AU, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IL, IS, JP, KG, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, <u>(SG)</u> SI, SK, TR, UA, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: SWOLLEN STARCHES AS PAPERMAKING ADDITIVES (57) Abstract A wet end additive composition which is used as a sizing agent in a papermaking process, the composition comprising a two phase suspension of swollen starch having a dry substance from about 0.5 to about 30 % by weight, a cooked swollen volume from about 1.6 ml/gram to about 100 ml/gram and cooked solubles from about 0.5 % to about 50 % by weight. The composition is prepared starching with a starch slurry having a relatively low concentration (dry substance) of starch. The slurry is subjected to carefully controlled swelling conditions (temperature and pH) which can vary depending upon the type of starch employed. The dry substance of the slurry also may vary depending upon whether a continuous or batch process is employed. The composition is used in a papermaking process by adding it to the furnish after the refining stage.		