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(21) International Application Number: PCT/US97/06780 (22) International Filing Date: 24 April 1997 (24.04.97) (71) Applicant: E.I. DU PONT DE NEMOURS & CO. [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). (72) Inventor: RACKLEY, Robert, L.; 119 Canterbury Drive, Parkersburg, WV 26104 (US). (74) Agents: VASSIL, John, C. et al.; Morgan & Finnegan L.L.P., 345 Park Avenue, New York, NY 10154 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GR, GH, HU, IL, 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, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (GH, 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 With international search report.
(54) Title: MONOFILAMENTS WITH SPLIT ENDS (57) Abstract Monofilaments with split ends. The monofilaments can be used to form toothbrush bristles having flagged or feathered tips. Each of the monofilaments has a plurality of internal fusion lines and at least four voids, wherein the voids comprise between 5 and 20 % of the cross-sectional area of the monofilaments. Preferably, the monofilaments each have a diameter in a range of 0.0025 to 0.012 inches, and have a hexalocular or an octalocular configuration. The monofilaments are manufactured by extruding a plurality of thermoplastic polymeric streams, rotating a plurality of cutting blades above 1000 rpm, and placing a plurality of cutting blades in contact with end portions of the plurality of thermoplastic polymeric streams to form split ends. 		