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(21) International Application Number: PCT/US99/00539 (22) International Filing Date: 11 January 1999 (11.01.99) (71) Applicant (for all designated States except US): E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19808 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): HUBBARD, Michael, A. [US/US]; 25 Oswestry Way, Somerset, NJ 08873 (US). WOHLERS, Michael [DE/DE]; An der Gröngesweide 1, D-65760 Eschborn (DE). WITTELER, Helmut, B. [DE/DE]; Birkenstrasse 9, D-67259 Beindersheim (DE). ZEY, Edward, G. [US/US]; 522 Evergreen Drive, Corpus Christi, TX 78413 (US). KVAKOVSKY, George [US/US]; 3068 Meadow Lake Drive East, Slidell, LA 70461 (US). SHOCKLEY, Thomas, H. [US/US]; 4606 Champions Drive, Corpus Christi, TX 78413 (US). CHARBONNEAU, Larry, F. [US/US]; 64 Mountainside Road, Mendham, NJ 07945 (US). KOHLE, Norbert [DE/DE]; Erich Bauer Strasse 10, D-65439 Flörsheim (DE). RIETH, Jochen [DE/DE]; Taunusstrasse 11, D-65618 Selters (DE). (74) Agents: DUFFETT, Benton, S., Jr. et al.; Burns, Doane, Swecker & Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (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, 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, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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: PROCESS AND PRODUCTS OF PURIFICATION OF ANHYDROSUGAR ALCOHOLS		
(57) Abstract A process for the formation of a purified anhydrosugar alcohol is disclosed, whereby the resultant purified anhydrosugar alcohol has a purity of at least 99.8 % and is substantially colorless. The anhydrosugar alcohol is purified by distillation, recrystallization from methanol, ethanol or ethylene glycol, melt recrystallization, or a combination thereof. Preferably, the purification is by distillation followed by recrystallization from methanol, ethanol or ethylene glycol. A test for determining the purity of the anhydrosugar alcohol is disclosed, wherein the color of the anhydrosugar alcohol after annealing at a temperature of at least 260 °C for at least four hours is examined. Alternatively, purity can be determined by examination of ultraviolet (UV) transmittance of the purified anhydrosugar alcohol at various wavelengths. The purified anhydrosugar alcohol may be incorporated into a polymer such as a polyester, which may in turn be used to form such articles of manufacturing as containers, optical disks, fibers, sheets and films.		