

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 July 2010 (08.07.2010)

PCT

(10) International Publication Number
WO 2010/077428 A8

(51) International Patent Classification:
C08F 220/06 (2006.01)

(21) International Application Number:
PCT/US2009/062932

(22) International Filing Date:
2 November 2009 (02.11.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/141,940 31 December 2008 (31.12.2008) US

(71) Applicant (for all designated States except US): **E. I. DU PONT DE NEMOURS AND COMPANY** [US/US]; 1007 Market Street, Wilmington, Delaware 19898 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HAUSMANN, Karlheinz** [DE/CH]; Abesses 21, CH-2012 Auvemier (CH). **HAYES, Richard, Allen** [US/US]; 630 Belvedere Drive, Beaumont, Texas 77706 (US). **PESEK, Steven, C.** [US/US]; 2806 Bear Trails, Orange, Texas 77632 (US). **SHAFFER, W., Alexander** [US/US]; 802 Dawnwood, Orange, Texas 77632 (US). **SMITH, Charles, Anthony** [US/US]; 5231 Glenbrook Drive, Vienna, West Virginia 26105 (US).

(74) Agent: **KOURTAKIS, Maria**; E. I. du Pont de Nemours and Company, 4417 Lancaster Pike, Wilmington, Delaware 19805 (US).

(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, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(48) Date of publication of this corrected version:

6 January 2011

(15) Information about Correction:

see Notice of 6 January 2011

(54) Title: IONOMER COMPOSITIONS WITH LOW HAZE AND HIGH MOISTURE RESISTANCE AND ARTICLES COMPRISING THE SAME

(57) Abstract: A sodium/zinc mixed ionomer comprises carboxylate groups and a combination of counterions that consists essentially of sodium cations and zinc cations. The sodium/zinc mixed ionomer is the neutralization product of a precursor acid copolymer. The precursor acid copolymer comprises copolymerized units of an α -olefin and an α,β -ethylenically unsaturated carboxylic acid, and it has a melt flow rate of about 10 to about 4000 g/10 min. In addition, the precursor acid copolymer, when neutralized to a level of about 40 % to about 90 %, and when comprising counterions that consist essentially of sodium ions, produces a sodium ionomer that has a freeze enthalpy that is not detectable or that is less than about 3.0 J/g, when determined by differential scanning calorimetry. Further provided are articles comprising or prepared from the sodium/zinc mixed ionomer.



WO 2010/077428 A8