

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 April 2007 (26.04.2007)

PCT

(10) International Publication Number
WO 2007/047528 A3

(51) International Patent Classification:

C01F 7/02 (2006.01) **C09K 21/14** (2006.01)
C08K 3/22 (2006.01)

(21) International Application Number:

PCT/US2006/040241

(22) International Filing Date: 12 October 2006 (12.10.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/728,199 18 October 2005 (18.10.2005) US
60/816,455 26 June 2006 (26.06.2006) US

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, 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, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (for all designated States except US): **ALBEMARLE CORPORATION** [US/US]; 451 Florida Street, Baton Rouge, LA 70801-1765 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HERBIET, Rene** [BE/BE]; Stendrich 150, B-4700 Eupen (BE). **HEIM, Ingo** [DE/DE]; Kolner Str 110, 50127 Bergheim (DE). **PUETZ, Norbert, W.** [DE/DE]; Martinswer GmbH, Kolner Strasse 110, 50126 Bergheim (DE).

(74) Agents: **KLIEBERT, Jeremy, J.** et al.; Albemarle Corporation, Law Department, 451 Florida Street, Baton Rouge, LA 70801-1765 (US).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

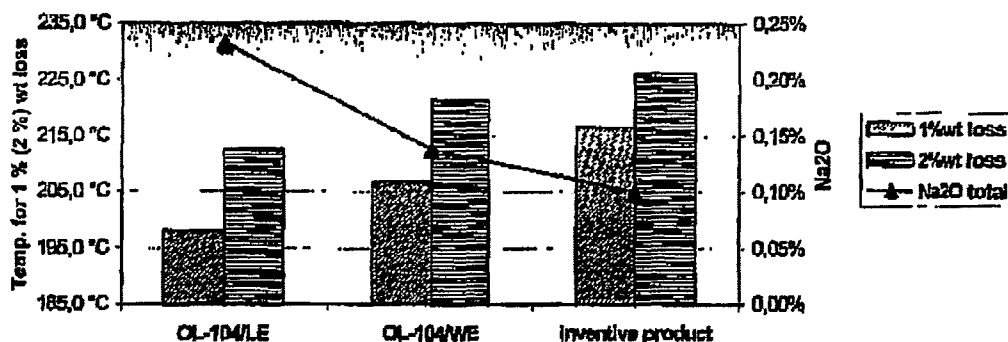
(88) Date of publication of the international search report:

24 May 2007

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: THERMALLY STABLE ALUMINUM HYDROXIDE PARTICLES AND THEIR USE AS FILLERS IN EPOXY LAMINATE RESINS



(57) Abstract: Aluminum hydroxide particles having improved thermal stability and their use as a flame retardant in resins suitable for use in epoxy laminates, and laminates containing the same.