



(51) International Patent Classification:

C08F 8/32 (2006.01) C08F 10/06 (2006.01)
C10G 75/04 (2006.01) C10L 1/2383 (2006.01)

(21) International Application Number:

PCT/US2012/044492

(22) International Filing Date:

28 June 2012 (28.06.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/176,082 5 July 2011 (05.07.2011) US

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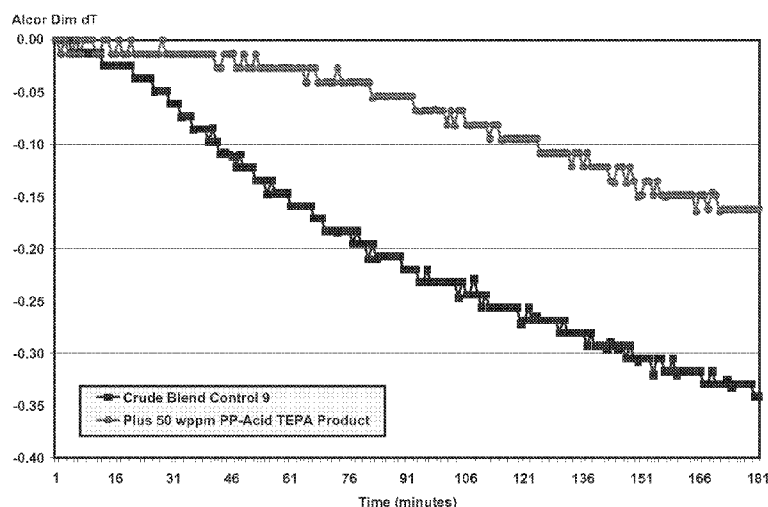
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

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(54) Title: POLYALKYLENE CARBOXYLIC ACID POLYAMINE ADDITIVES FOR FOULING MITIGATION IN HYDRO-CARBON REFINING PROCESSES

FIGURE 3



(57) Abstract: Methods and systems for reducing fouling, including particulate-induced fouling, in a hydrocarbon refining process including the steps of providing a crude hydrocarbon for a refining process and adding an antifouling agent containing a polymer base unit and a polyamine group to the crude hydrocarbon are provided. The antifouling agent can be obtained by converting a vinyl terminated polymer, such as polypropylene or poly(ethylene-co-propylene), to a terminal acyl containing functional group, followed by reacting the terminal acyl containing functional group with a polyamine compound.



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, 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))*
- *with amended claims (Art. 19(1))*