

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 June 2011 (09.06.2011)

PCT

(10) International Publication Number
WO 2011/068733 A2

(51) International Patent Classification:

C10M 159/22 (2006.01) *C07F 3/04* (2006.01)
C10M 129/10 (2006.01) *C10N 40/25* (2006.01)

(21) International Application Number:

PCT/US2010/058000

(22) International Filing Date:

24 November 2010 (24.11.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/629,349 2 December 2009 (02.12.2009) 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, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: LOW TEMPERATURE PERFORMANCE LUBRICATING OIL DETERGENTS AND METHOD OF MAKING THE SAME

(57) Abstract: A carboxylate detergent prepared by the process comprising (a) alkylating a hydroxyaromatic compound with at least one alpha olefin oligomer, derived from C₈ to C₂₀ alpha olefins, to thereby produce an alkylhydroxyaromatic compound, and wherein at least 90 % of the molecules in the alkylhydroxyaromatic compound have the alkyl group attached at the 4-position or higher from the terminus of the longest chain of the alkyl group, and and further wherein the alkyl group comprises at least one hydrocarbon tail of at least 7 carbons; (b) neutralizing the resulting alkylated hydroxyaromatic compound with an alkali metal base; (c) carbonating the alkali metal salt from step (b) with carbon dioxide; (d) acidifying the salt produced in step (c); and (e) overbasing the resulting alkylated hydroxyaromatic carboxylic acid.



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