

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 August 2005 (11.08.2005)

PCT

(10) International Publication Number
WO 2005/073352 A1

(51) International Patent Classification⁷: **C10M 139/00**,
159/12, C10L 1/30, C07F 5/04

(21) International Application Number:
PCT/US2005/003112

(22) International Filing Date: 19 January 2005 (19.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/539,590 29 January 2004 (29.01.2004) US
11/037,623 17 January 2005 (17.01.2005) US

(71) Applicant (for all designated States except US): **CROMPTON CORPORATION** [US/US]; Benson Road, Middlebury, CT 06749 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MUIR, Ronald, J.** [CA/CA]; 4 Invermarge Drive, West Hill, Ontario M1C 3M4 (CA).

(74) Agents: **DILWORTH, Michael, P.** et al.; Crompton Corporation, Benson Road, Middlebury, CT 06749 (US).

(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, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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).

Published:

— with international search report

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: DETERGENT / ANTI-OXIDANT ADDITIVES FOR FUELS AND LUBRICANTS

(57) Abstract: A composition is disclosed that comprises the reaction product of an acidic organic compound, a boron compound, and a basic organic compound. The composition is useful as a detergent additive for lubricants and hydrocarbon fuels.

