

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
24 August 2023 (24.08.2023)



(10) International Publication Number
WO 2023/159095 A1

(51) International Patent Classification:

C10M 135/30 (2006.01) C10N 10/04 (2006.01)
C07C 39/06 (2006.01) C10N 20/00 (2006.01)
C07C 39/235 (2006.01) C10N 30/04 (2006.01)

(21) International Application Number:

PCT/US2023/062700

(22) International Filing Date:

16 February 2023 (16.02.2023)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/312,228 21 February 2022 (21.02.2022) US

(71) Applicant: AFTON CHEMICAL CORPORATION

[US/US]; 500 Spring Street, Richmond, Virginia 23219 (US).

(72) Inventors: TIAN, Xin; 701 Colony Oak Ln, Midlothian,

Virginia 23114 (US). BELL, Jason; 2961 Palaver Bluff, Powhatan, Virginia 23139 (US). ANDERSON, Steven; 7950 Stone Wall Drive, Amelia Courthouse, Virginia 23002 (US).

(74) Agent: CHELSTROM, Jeffrey A. et al.; Honigman Miller

Schwartz and Cohn LLP, 650 Trade Centre Way, Suite 200, Kalamazoo, Michigan 49002-0402 (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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

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

(54) Title: POLYALPHAOLEFIN PHENOLS WITH HIGH PARA-POSITION SELECTIVITY

(57) Abstract: The present disclosure provides a detergent additives and methods for preparing a sulfurized alkyl phenate product from polyalphaolefins.

WO 2023/159095 A1