



(43) International Publication Date
7 August 2014 (07.08.2014)

(10) International Publication Number
WO 2014/121174 A1

(51) International Patent Classification:

C08G 18/66 (2006.01) *C08G 18/42* (2006.01)
C08G 18/76 (2006.01)

(21) International Application Number:

PCT/US2014/014373

(22) International Filing Date:

3 February 2014 (03.02.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/760,352 4 February 2013 (04.02.2013) US

(71) Applicant: LUBRIZOL ADVANCED MATERIALS, INC. [US/US]; 9911 Brecksville Road, Cleveland, Ohio 44141-3247 (US).

(72) Inventors: MELTZER, Donald A.; 560 Lake of the Woods Blvd., Akron, Ohio 44333 (US). KULKARNI, Pallavi; 207 Lowell Street, Wilmington, Massachusetts 01887 (US). WALDER, Anthony J.; 207 Lowell Street, Wilmington, Massachusetts 01887 (US). FARKAS, Julius; 9911 Brecksville Road, Cleveland, Ohio 44141-3247 (US).

(74) Agents: DUNLAP, Thoburn T. et al.; The Lubrizol Corporation, Legal Department/MD022B, 29400 Lakeland Blvd., Wickliffe, OH 44092-2298 (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, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, 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, KM, ML, MR, NE, SN, TD, TG).

Published:

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

(54) Title: CLEAR HYDROPHOBIC TPU

(57) Abstract: A clear hydrophobic TPU is provided by reacting (a) a hydrophobic polyol made from dimerised fatty acid, (b) a chain extender mixture of a linear diol chain extender and a branched diol chain extender, and (c) a diisocyanate. The preferred polyol is a C₃₆ dimer fatty acid reacted with 1,6-hexane diol. The preferred chain extender mixture is a 75:25 weight ratio blend of 1,12-dodecane diol and 2-butyl-2-ethyl propane diol. The preferred process to make the TPU is a batch process which starts the reaction between about 60°C to 70°C.



WO 2014/121174 A1