

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 June 2022 (23.06.2022)



(10) International Publication Number
WO 2022/133059 A1

(51) International Patent Classification:

C08L 77/02 (2006.01) *C08K 3/013* (2018.01)
C08G 69/26 (2006.01) *C08L 77/06* (2006.01)
C08G 69/34 (2006.01) *C08L 77/08* (2006.01)

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

(21) International Application Number:

PCT/US2021/063748

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))

(22) International Filing Date:

16 December 2021 (16.12.2021)

Published:

— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/126,830 17 December 2020 (17.12.2020) US

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

(72) Inventors: **THETFORD, Dean**; P.O. Box 42, Blackley
Greater Manchester M9 8ZS (GB). **COULBECK, Elliot**;
P.O. Box 42, Blackley Greater Manchester M9 8ZS (GB).
GREEN, Saša; P.O. Box 42, Blackley Greater Manchester
M9 8ZS (GB).

(74) Agent: **CORTESE, Vincent A.** et al.; 29400 Lakeland
Blvd., Wickliffe, Ohio 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, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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, 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, 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, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,

(54) Title: THERMOPLASTIC COMPOSITION

(57) Abstract: A composition including a particulate solid, a plastic material and a polymer, wherein the polymer is a polyamide with fatty terminal end groups; wherein the polyamide is a condensation reaction product of a diamine and a diacid; wherein the polymer has from 5 to 13 monomer units; wherein the diamine is a saturated C₂-C₁₂, linear, branched, or cyclic diamine; wherein the amine groups of the diamine are primary or secondary; wherein the diacid is a saturated C₂₀-C₅₀ branched carboxylic diacid; and wherein each of the fatty terminal end groups are independently a C₆-C₃₆ linear or branched carbon chain which is attached to the polyamide via an amide or an imide bond.



WO 2022/133059 A1