

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
21 April 2022 (21.04.2022)



(10) International Publication Number
WO 2022/078940 A1

(51) International Patent Classification:

C07C 319/28 (2006.01) C07C 323/58 (2006.01)

Published:

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

(21) International Application Number:

PCT/EP2021/078010

(22) International Filing Date:

11 October 2021 (11.10.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20201501.2 13 October 2020 (13.10.2020) EP

(71) Applicant: **EVONIK OPERATIONS GMBH** [DE/DE];
Rellinghauser Strasse 1-11, 45128 Essen (DE).

(72) Inventors: **KÖRFER, Martin**; Mainstraße 20, 63796
Kahl (DE). **HASSELBACH, Hans-Joachim**; Deutschor-
denstr. 6, 63571 Gelnhausen (DE). **REICHERT, Ste-
fan**; Robert-Koch-Allee 26, 60438 Frankfurt (DE). **AN-
TEZANA, Mauricio**; Barrio Las Palmas, Calle La Rioja
#111 (Casilla 4478), Santa Cruz (BO). **HANSMEIER, An-
tje**; Laubestr. 3, 60594 Frankfurt am Main (DE).

(74) Agent: **EVONIK PATENT ASSOCIATION**; c/o Evonik
Industries AG, IP Management, Bau 1042A, PB15, Paul-
Baumann-Strasse 1, 45772 Marl (DE).

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

(54) Title: D,L-METHIONINE WITH AN OPTIMIZED PARTICLE SIZE DISTRIBUTION

(57) Abstract: The present invention relates to D,L-methionine, comprising based on the total weight of the D,L-methionine from 15 to less than 50 wt.-% of the D,L-methionine with a particle size from more than 0 to less 150 micrometer, from 50 to less than 90 wt.-% of the D,L-methionine with a particle size from more than 0 to less 300 micrometer, and from 30 to less than 80 wt.-% of the D,L-methionine with a particle size in the range between 63 and 300 micrometer, wherein the D,L-methionine has a bulk density of at least 710 kg/m³; and a process for the preparation of said methionine.

WO 2022/078940 A1