

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

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2022/258558 A1

(43) International Publication Date
15 December 2022 (15.12.2022)

(51) International Patent Classification:
C09K 5/04 (2006.01)

(21) International Application Number:
PCT/EP2022/065306

(22) International Filing Date:
06 June 2022 (06.06.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2108077.5 06 June 2021 (06.06.2021) GB

(71) Applicant: **RPL HOLDINGS LTD** [GB/GB]; 8 Murieston Road, Hale, Altrincham, Cheshire, WA15 9ST (GB).

(72) Inventors: **POOLE, John Edward**; 8 Murieston Road, Hale, Altrincham, Cheshire, WA15 9ST (GB). **POWELL, Richard Llewellyn**; 27 Ferguson Way, Huntington, York, Yorkshire, YO32 9YG (GB).

(74) Agent: **BROWNE, Robin Forsythe**; Hepworth Browne, 15 St Pauls Street, Leeds, Yorkshire, LS1 2JG (GB).

(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, IQ, IR, IS, IT, JM, 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).

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

(54) Title: LOW GLOBAL WARMING REFRIGERANT BLENDS

(57) Abstract: A refrigerant composition comprising: Carbon dioxide 1 - 7%, Hydrofluoroolefin (HFO)-1234ze(E) 70 - 97%, HFC-227ea 2 - 16%; and 0-27% of an optional component selected from the group consisting of: HFC-32, HFC-134a, R125 and mixtures thereof, wherein the percentages of the components are by mass and are selected from the ranges quoted to total 100%.

WO 2022/258558 A1