

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 January 2010 (07.01.2010)

PCT

(10) International Publication Number
WO 2010/002022 A8

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

(21) International Application Number:

PCT/JP2009/062251

(22) International Filing Date:

30 June 2009 (30.06.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/129,504 1 July 2008 (01.07.2008) US
61/113,763 12 November 2008 (12.11.2008) US

(71) Applicant (for all designated States except US): **DAIKIN INDUSTRIES, LTD.** [JP/JP]; Umeda Center Building, 4-12, Nakazaki-Nishi 2-Chome, Kita-ku, Osaka-shi, Osaka, 5308323 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TSUCHIYA, Tatsu-
sumi** [JP/JP]; c/o Yodogawa Seisakusho, DAIKIN IN-
DUSTRIES, LTD., 1-1, Nishihitotsuya, Settsu-shi, Osaka,
5660044 (JP). **FUJIWARA, Katsuki** [JP/JP]; c/o Yo-
dogawa Seisakusho, DAIKIN INDUSTRIES, LTD., 1-1,
Nishihitotsuya, Settsu-shi, Osaka, 5660044 (JP).
NOGUCHI, Masahiro [JP/JP]; c/o DAIKIN INDUS-
TRIES, LTD., Umeda Center Building, 4-12, Nakazaki-
Nishi 2-Chome, Kita-ku, Osaka-shi, Osaka, 5308323 (JP).
YAMADA, Yasufu [JP/JP]; c/o Yodogawa Seisakusho,
DAIKIN INDUSTRIES, LTD., 1-1, Nishihitotsuya,
Settsu-shi, Osaka, 5660044 (JP).

(74) Agent: **Saegusa & Partners**; Kitahama TNK Building,
1-7-1, Doshomachi, Chuo-ku, Osaka-shi, Osaka 5410045
(JP).

(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, 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, IS, JP, KE, KG, KM, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (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, SE, SI, SK, TR),
OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG).

Published:

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

(48) Date of publication of this corrected version:

29 April 2010

(15) Information about Correction:

see Notice of 29 April 2010

(54) Title: REFRIGERANT COMPOSITION COMPRISING PENTAFLUOROETHANE (HFC125), 2,3,3,3-TETRAFLUORO-
PROPENE (HFO1234yf) AND 1,1,1,2-TETRAFLUOROETHANE (HFC134a)

(57) Abstract: The present invention provides a refrigerant composition that is nonflammable, and ensures low LCCP and less
burden on the environment. More specifically, provided is a refrigerant composition containing pentafluoroethane (HFC125),
2,3,3,3-tetrafluoropropene (HFO1234yf), and 1,1,1,2-tetrafluoroethane (HFC134a), the ratio of HFC125/HFO1234yf/HFC134a
being in a range surrounded by points (21/79/0 mass%), (28.5/71.5/0 mass%), (0/30.2/69.8 mass%), and (0/64/36 mass%) in a
ternary diagram of a refrigerant composition containing HFC125, HFO1234yf, and HFC134a, and the composition essentially
containing HFC134a and HFC125.



WO 2010/002022 A8