



- (51) **International Patent Classification:**
C09K 5/04 (2006.01)
- (21) **International Application Number:**
PCT/US2014/013040
- (22) **International Filing Date:**
24 January 2014 (24.01.2014)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/756,674 25 January 2013 (25.01.2013) US
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- (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))
- 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))

(88) **Date of publication of the international search report:**
18 December 2014



WO 2014/117014 A3

(54) **Title:** REFRIGERANT ADDITIVES AND COMPOSITIONS

(57) **Abstract:** Embodiments are described herein to provide refrigerant and/or refrigerant composition that is suitable for providing lubrication to, for example, moving parts of a chiller system. Embodiments are also described herein to provide an additive, such as a corrosion inhibitor and/or stabilizers, that can be added to the refrigerant to form refrigerant compositions that is suitable for providing lubrication to, for example, moving parts of a chiller system.

A. CLASSIFICATION OF SUBJECT MATTER**C09K 5/04(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C09K 5/04; F28D 15/00; C08J 9/14; C11D 7/30; C23G 5/00; F25B 43/02; F25B 31/00; C10M 107/38

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: oil-free HVAC, refrigerant, chiller, lubrication

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 00-39243 A1 (ALLIEDSIGNAL, INC.) 06 July 2000 See abstract; page 5, lines 16-22; and claim 1.	1-20
Y	US 2001-0037651 A (BUTTERWORTH, ARTHUR L. et al.) 08 November 2001 See abstract; paragraph [0053]; and claim 88.	1-20
Y	US 5108632 A (THOMAS, RAYMOND H. P. et al.) 28 April 1992 See abstract; column 3, lines 65-68; and claims 1-2, 10, 12.	2-8, 10-18
A		1, 9, 19-20
A	US 5318716 A (BARTLETT, PHILIP L. et al.) 07 June 1994 See abstract; and claim 1.	1-20
A	US 2012-0138846 A1 (VAN HORN, BRETT L. et al.) 07 June 2012 See abstract; and claims 1-3, 7-8.	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&" document member of the same patent family


Date of the actual completion of the international search

23 October 2014 (23.10.2014)

Date of mailing of the international search report

23 October 2014 (23.10.2014)

Name and mailing address of the ISA/KR


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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2014/013040

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