

Title (en)  
1,1,1,3,3-PENTAFLUOROBUTANE REFRIGERANT OR HEAT TRANSFER FLUID COMPOSITIONS COMPRISING HYDROFLUOROCARBON AND USES THEREOF

Title (de)  
1,1,1,3,3-PENTAFLUOROBUTANKÜHLMITTEL- ODER -WÄRMEÜBERTRAGUNGSFLÜSSIGKEITZUSAMMENSETZUNGEN, DIE FLUORKOHLENWASSERSTOFFE ENTHALTEN, UND DEREN ANWENDUNGEN

Title (fr)  
COMPOSITIONS LIQUIDES DE 1,1,1,3,3-PENTAFLUOROBUTANE FRIGORIGENES OU DE TRANSFERT THERMIQUE COMPRENANT DES HYDROFLUOROCARBONES ET UTILISATIONS

Publication  
**EP 1706468 A2 20061004 (EN)**

Application  
**EP 05705840 A 20050112**

Priority  
• US 2005001505 W 20050112  
• US 53681904 P 20040114  
• US 1443504 A 20041216

Abstract (en)  
[origin: WO2005067555A2] Disclosed herein are 1,1,1,3,3-pentafluorobutane refrigerant or heat transfer fluid compositions further comprising hydrofluorocarbon, , N-(difluoromethyl)-N,N-dimethylamine, 1,1,1,2,2-pentafluoro-2-[(pentafluoroethyl)thio]ethane or mixtures thereof, which are useful in refrigerain or air conditioning apparatus or as heat transfer fluids. The compositions of the present invention are also useful in centrifugal compressor apparatus that employ two-stage compressors or single slab.single pass heat exchangers.

IPC 8 full level  
**C09K 5/04** (2006.01)

CPC (source: EP KR)  
**C09K 5/00** (2013.01 - KR); **C09K 5/04** (2013.01 - KR); **C09K 5/045** (2013.01 - EP); **C09K 2205/112** (2013.01 - EP); **C09K 2205/22** (2013.01 - EP); **C09K 2205/24** (2013.01 - EP)

Citation (search report)  
See references of WO 2005067555A2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005067555 A2 20050728; WO 2005067555 A3 20060323**; AR 048147 A1 20060405; AU 2005204952 A1 20050728; BR PI0506519 A 20070227; CA 2553449 A1 20050728; EP 1706468 A2 20061004; JP 2007517971 A 20070705; KR 20060122918 A 20061130; NO 20063640 L 20061003; RU 2006129302 A 20080220

DOCDB simple family (application)  
**US 2005001505 W 20050112**; AR P050100134 A 20050114; AU 2005204952 A 20050112; BR PI0506519 A 20050112; CA 2553449 A 20050112; EP 05705840 A 20050112; JP 2006549681 A 20050112; KR 20067016217 A 20060811; NO 20063640 A 20060811; RU 2006129302 A 20050112