

Title (en)

Cleaning or drying compositions based on pentafluorobutane, methylene chloride, methanol and decafluoropentane

Title (de)

Reinigungs- oder Trocknungszusammensetzungen auf Basis von Pentafluorbutan, Methylenchlorid, Methanol und Decafluorpentan

Title (fr)

Compositions de nettoyage ou de séchage à base de pentafluorobutane, chlorure de méthylène, méthanol et décafluoropentane

Publication

**EP 1046703 A1 20001025 (FR)**

Application

**EP 00400777 A 20000321**

Priority

FR 9905130 A 19990422

Abstract (en)

(Quasi) azeotropic compositions to replace CFC and HCFC based compositions for cleaning and degreasing solid surfaces, containing defined proportions of 1,1,1,3,3-pentafluorobutane, dichloromethane, methanol and 1,1,1,2,3,4,4,5,5,5-decafluoropentane. Azeotropic or quasi azeotropic compositions comprising: (a) 45-65 (50-60) % 1,1,1,3,3-pentafluorobutane; (b) 30-50 (35-45) % dichloromethane; and (c) 1-10 (2-5) % methanol; (d) 0.1-2 (0.2-1) % 1,1,1,2,3,4,4,5,5,5-decafluoropentane.

Abstract (fr)

Pour remplacer les compositions à base de CFC ou de HCFC dans les applications de nettoyage ou de séchage de surfaces solides (notamment défluxage), l'invention propose des compositions azéotropiques ou quasi azéotropiques à base de 1,1,1,3,3-pentafluorobutane, de dichlorométhane, de méthanol, et de 1,1,1,2,3,4,4,5,5,5-décafluoropentane.

IPC 1-7

**C11D 7/50**

IPC 8 full level

**B23K 1/00** (2006.01); **C11D 7/26** (2006.01); **C11D 7/30** (2006.01); **C11D 7/32** (2006.01); **C11D 7/50** (2006.01)

CPC (source: EP US)

**C11D 7/5081** (2013.01 - EP US)

Citation (search report)

- [A] WO 9630487 A1 19961003 - SOLVAY [BE], et al
- [A] US 5350534 A 19940927 - MICHAUD PASCAL [FR]

Cited by

EP2336288A1; US7540973B2; WO2008073408A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

**EP 1046703 A1 20001025; EP 1046703 B1 20031015**; AU 2894400 A 20001026; AU 764299 B2 20030814; CA 2305019 A1 20001022; DE 60005881 D1 20031120; DE 60005881 T2 20040819; ES 2208232 T3 20040616; FR 2792647 A1 20001027; FR 2792647 B1 20010608; JP 2000328095 A 20001128; US 6291416 B1 20010918

DOCDB simple family (application)

**EP 00400777 A 20000321**; AU 2894400 A 20000420; CA 2305019 A 20000410; DE 60005881 T 20000321; ES 00400777 T 20000321; FR 9905130 A 19990422; JP 2000092869 A 20000330; US 55686300 A 20000421