

Title (en)
Refrigeration lubricants

Title (de)
Kältemaschinenschmiermittel

Title (fr)
Lubrifiants pour la réfrigération

Publication
EP 0406479 B2 20020904 (EN)

Application
EP 89119265 A 19891017

Priority
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• JP 17200189 A 19890705
• JP 17200289 A 19890705

Abstract (en)
[origin: EP0406479A1] A lubricant for hydrofluorocarbon refrigerant comprises as a main component an ester obtained by esterifying at least one straight or branched-chain monovalent fatty acid having a particular carbon number with neopentyl glycol or at least one compound of general formula (I) or a polyvalent alcohol of general formula (II) or further at least one polybasic acid having a particular carbon number: <CHEM> This lubricant has a sufficient compatibility with the hydrofluorocarbon refrigerant used as a refrigerant instead of the conventional chlorine-containing compounds.

IPC 1-7
C10M 105/38; **C10M 105/40**; **C10M 105/42**; **C10M 105/44**

IPC 8 full level
C10M 105/00 (2006.01); **C10M 105/32** (2006.01); **C10M 105/38** (2006.01); **C10M 105/40** (2006.01); **C10M 105/42** (2006.01); **C10M 105/44** (2006.01); **C10M 171/00** (2006.01)

CPC (source: EP KR)
C10M 105/00 (2013.01 - EP); **C10M 105/32** (2013.01 - EP); **C10M 105/38** (2013.01 - EP KR); **C10M 105/40** (2013.01 - EP); **C10M 105/42** (2013.01 - EP KR); **C10M 105/44** (2013.01 - EP); **C10M 105/52** (2013.01 - EP); **C10M 171/008** (2013.01 - EP); **C10M 2203/003** (2013.01 - EP); **C10M 2207/2805** (2013.01 - EP); **C10M 2207/281** (2013.01 - EP); **C10M 2207/282** (2013.01 - EP); **C10M 2207/283** (2013.01 - EP); **C10M 2207/2835** (2013.01 - EP); **C10M 2207/286** (2013.01 - EP); **C10M 2207/2875** (2013.01 - EP); **C10M 2207/2885** (2013.01 - EP); **C10M 2207/289** (2013.01 - EP); **C10M 2207/2895** (2013.01 - EP); **C10M 2207/301** (2013.01 - EP); **C10M 2207/302** (2013.01 - EP); **C10M 2207/3025** (2013.01 - EP); **C10M 2207/345** (2013.01 - EP); **C10M 2209/109** (2013.01 - EP); **C10M 2209/11** (2013.01 - EP); **C10M 2211/0206** (2013.01 - EP); **C10M 2211/022** (2013.01 - EP); **C10M 2211/0225** (2013.01 - EP); **C10M 2211/0245** (2013.01 - EP); **C10M 2211/06** (2013.01 - EP); **C10N 2040/00** (2013.01 - EP); **C10N 2040/30** (2013.01 - EP); **C10N 2040/32** (2013.01 - EP); **C10N 2040/34** (2013.01 - EP); **C10N 2040/36** (2013.01 - EP); **C10N 2040/38** (2020.05 - EP); **C10N 2040/40** (2020.05 - EP); **C10N 2040/42** (2020.05 - EP); **C10N 2040/44** (2020.05 - EP); **C10N 2040/50** (2020.05 - EP)

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US5728658A; EP0536940A3; EP0679809A3; US5531080A; US5964581A; US6029459A; EP0499994A1; US7052626B1; EP0568349A1; EP0501440A1; US5830833A; US5342533A; EP0445610A1; US5395544A; US5300245A; US5401433A; US5946921A; EP0518567A1; CN102292420A; US5494597A; AU715115B2; CN1072253C; US6080705A; US5547593A; AU680317B2; EP0622445A1; EP0786510A1; EP0638630A1; EP0629687A1; EP0449406A1; CN108138067A; EP0468729A1; GB2247466A; US5229025A; GB2247466B; EP0708173A1; EP0711820A3; EP1290114A4; US7514394B2; US8419968B2; US6245254B1; US8889607B2; EP0738859A3; EP0738858A3; EP0743496A3; US5355695A; US5470497A; EP0498152A1; AU653572B2; US5486302A; US5612299A; US5575944A; AU666346B2; EP0786512A3; EP0445611A1; EP0448402A3; AU666346C; WO9314176A1; WO9201030A1; WO9212223A1; WO2010056449A3; WO9513333A1; WO9324597A1; WO9416028A1; US6258293B1; US6582621B1; US5817607A; US5767047A; US5658863A; US5681800A; US6183662B1; US5833876A; EP0982393A1; US6296782B1; US5853609A; US6221272B1; EP0475751A1; US5202044A; EP0458584A1; US5211884A; EP0976816A3; AU2009314483B2; KR100349096B1; KR100240193B1; EP0644921B1; WO9413764A1; WO9325628A3; WO9310206A1; WO9324596A1; WO9325629A3; WO9324587A1; WO9311210A1; DE102020102162A1; WO2021152001A1; EP1941010A1; EP1129158B2

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