

Title (en)  
Lubricant with enhanced energy efficiency

Title (de)  
Schmiermittel mit erweiterter Energieeffizienz

Title (fr)  
Lubrifiant doté d'une efficacité énergétique améliorée

Publication  
**EP 2345710 A1 20110720 (EN)**

Application  
**EP 10000403 A 20100118**

Priority  
EP 10000403 A 20100118

Abstract (en)  
Lubricant compositions useful especially for the lubrication of gears, having a boundary loss coefficient X LG of 0.6 to 0.8 measured at temperatures of 40 to 120 °C with a modified method according to DIN 51354, whereby the lubricant composition contains of a base oil a optional additives, whereby the base oil is selected from complex ester, said, said complex ester having a kinematic viscosity at 40 °C of greater than 400 and up to 50 000 mm<sup>2</sup> /s.

IPC 8 full level  
**C10M 105/42** (2006.01); **C10M 111/02** (2006.01); **C10N 20/02** (2006.01); **C10N 30/06** (2006.01); **C10N 40/04** (2006.01); **C10N 40/08** (2006.01)

CPC (source: EP KR US)  
**C10M 105/42** (2013.01 - EP KR US); **C10M 111/00** (2013.01 - EP US); **C10M 111/02** (2013.01 - KR); **C10M 2203/1006** (2013.01 - EP US); **C10M 2205/0285** (2013.01 - EP US); **C10M 2207/301** (2013.01 - EP US); **C10M 2209/1033** (2013.01 - EP US); **C10M 2219/00** (2013.01 - EP US); **C10M 2223/00** (2013.01 - EP US); **C10N 2020/02** (2013.01 - EP KR US); **C10N 2030/02** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2040/04** (2013.01 - EP KR US)

Citation (applicant)  
• EP 2027234 A2 20090225 - COGNIS IP MAN GMBH [DE]  
• WO 2005019395 A1 20050303 - COGNIS CORP [US], et al

Citation (search report)  
• [XI] WO 2007144079 A2 20071221 - COGNIS IP MAN GMBH [DE], et al  
• [X] US 2003125218 A1 20030703 - CARDIS ANGELINE BAIRD [US], et al  
• [X] WO 9916849 A1 19990408 - UNICHEMA CHEMIE BV [NL], et al  
• [A] US 2006276355 A1 20061207 - CAREY JAMES T [US], et al

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US2015119305A1; RU2726194C2; WO2017016825A1

Designated contracting state (EPC)  
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Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
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**EP 10000403 A 20100118**; AU 2011206740 A 20110112; BR 112012017719 A 20110112; CA 2785357 A 20110112; CN 201180006477 A 20110112; EP 2011000095 W 20110112; JP 2012548375 A 20110112; KR 20127018216 A 20110112; MX 2012008136 A 20110112; US 201113522645 A 20110112