

Title (en)  
LUBRICATING OIL ADDITIVE, LUBRICATING OIL COMPOSITION CONTAINING THE SAME, AND PROCESS FOR PRODUCING THE SAME

Title (de)  
SCHMIERÖLADDITIV, DIESES ENTHALTENDE SCHMIERÖLZUSAMMENSETZUNG UND ZUGEHÖRIGES HERSTELLUNGSVERFAHREN

Title (fr)  
ADDITIF POUR HUILE DE GRAISSAGE, COMPOSITION D'HUILE DE GRAISSAGE LE RENFERMANT ET PROCEDE DE FABRICATION DUDIT ADDITIF

Publication  
**EP 1516911 A4 20050914 (EN)**

Application  
**EP 03736321 A 20030630**

Priority  
• JP 0308337 W 20030630  
• JP 2002191089 A 20020628

Abstract (en)  
[origin: EP1516911A1] Disclosed are lubricating oil additives obtained by dissolving or reacting (A) a metal salt of a specific phosphorus compound which is insoluble or less soluble in lubricating oils in or with (B) an amine compound so as to be solved in the lubricating oils; a lubricating oil composition containing such an additive; a method of producing the additive and composition.

IPC 1-7  
**C10M 141/10**; **C10M 159/12**; **C10M 177/00**; **C10M 133/04**; **C10M 133/16**; **C10M 137/02**; **C10M 137/12**; **C10N 10/02**; **C10N 10/04**; **C10N 30/00**; **C10N 70/00**; **C10M 169/04**; **C10M 137/06**

IPC 8 full level  
**C10M 137/06** (2006.01); **C10M 141/10** (2006.01); **C10M 159/12** (2006.01); **C10M 163/00** (2006.01); **C10M 167/00** (2006.01); **C10M 169/00** (2006.01); **C10M 169/04** (2006.01); **C10M 169/06** (2006.01)

CPC (source: EP US)  
**C10M 137/06** (2013.01 - EP); **C10M 141/10** (2013.01 - EP); **C10M 159/12** (2013.01 - EP); **C10M 159/123** (2013.01 - EP); **C10M 163/00** (2013.01 - EP); **C10M 167/00** (2013.01 - EP); **C10M 169/00** (2013.01 - EP); **C10M 169/045** (2013.01 - EP US); **C10M 169/048** (2013.01 - EP); **C10M 169/06** (2013.01 - EP); **C10M 2203/1006** (2013.01 - EP); **C10M 2205/0285** (2013.01 - EP); **C10M 2207/026** (2013.01 - EP); **C10M 2207/0285** (2013.01 - EP); **C10M 2207/0406** (2013.01 - EP); **C10M 2207/16** (2013.01 - EP); **C10M 2207/262** (2013.01 - EP); **C10M 2207/2805** (2013.01 - EP); **C10M 2207/2835** (2013.01 - EP); **C10M 2207/288** (2013.01 - EP); **C10M 2207/289** (2013.01 - EP); **C10M 2207/2895** (2013.01 - EP); **C10M 2209/103** (2013.01 - EP); **C10M 2215/02** (2013.01 - EP); **C10M 2215/04** (2013.01 - EP); **C10M 2215/064** (2013.01 - EP); **C10M 2215/086** (2013.01 - EP); **C10M 2215/28** (2013.01 - EP); **C10M 2217/0456** (2013.01 - EP); **C10M 2219/046** (2013.01 - EP); **C10M 2219/062** (2013.01 - EP); **C10M 2219/068** (2013.01 - EP); **C10M 2219/086** (2013.01 - EP); **C10M 2219/09** (2013.01 - EP); **C10M 2219/104** (2013.01 - EP); **C10M 2223/04** (2013.01 - EP); **C10M 2223/042** (2013.01 - EP); **C10M 2223/043** (2013.01 - EP); **C10M 2223/045** (2013.01 - EP); **C10M 2223/049** (2013.01 - EP); **C10M 2223/063** (2013.01 - EP); **C10M 2223/065** (2013.01 - EP); **C10M 2227/06** (2013.01 - EP); **C10N 2010/02** (2013.01 - EP); **C10N 2010/04** (2013.01 - EP); **C10N 2010/14** (2013.01 - EP US); **C10N 2010/16** (2013.01 - EP US); **C10N 2020/00** (2013.01 - EP); **C10N 2030/00** (2013.01 - EP); **C10N 2030/06** (2013.01 - EP); **C10N 2030/12** (2013.01 - EP); **C10N 2030/70** (2020.05 - EP); **C10N 2040/02** (2013.01 - EP); **C10N 2040/14** (2013.01 - EP); **C10N 2050/10** (2013.01 - EP); **C10N 2070/00** (2013.01 - EP)

Citation (search report)  
• [X] US 3491133 A 19700120 - REVUKAS ANTHONY J  
• See references of WO 2004003118A1

Citation (examination)  
US 2001034305 A1 20011025 - KOMATSUBARA HITOSHI [JP]

Cited by  
EP1544279A4; EP1686168A4; WO2004020557A1; US7696137B2; EP1736529A4

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

DOCDB simple family (publication)  
**EP 1516911 A1 20050323**; **EP 1516911 A4 20050914**; AU 2003244023 A1 20040119; CN 102268317 A 20111207; CN 102268317 B 20130918; CN 1671828 A 20050921; CN 1671828 B 20120530; JP 4532268 B2 20100825; JP WO2004003118 A1 20051027; WO 2004003118 A1 20040108

DOCDB simple family (application)  
**EP 03736321 A 20030630**; AU 2003244023 A 20030630; CN 03817354 A 20030630; CN 201110189219 A 20030630; JP 0308337 W 20030630; JP 2004517339 A 20030630