

Title (en)  
Use of a lubricating additive

Title (de)  
Verwendung eines Schmieröladditivs

Title (fr)  
Utilisation d'additif lubrifiant

Publication  
**EP 2365049 A1 20110914 (EN)**

Application  
**EP 11169302 A 20100729**

Priority  
• EP 10171307 A 20100729  
• GB 0917983 A 20091014  
• EP 09010811 A 20090824  
• EP 11169302 A 20100729

Abstract (en)  
The use in the lubrication of a compression-ignited internal combustion engine which is fuelled with biodiesel, of a metal detergent system comprising one or more oil-soluble overbased alkaline earth metal salicylates, as an additive component in a minor amount, in a lubricating oil composition to reduce and/or inhibit oxidation of the lubricating oil composition during operation of the engine, wherein the lubricating oil composition becomes contaminated with biodiesel or a decomposition product thereof during operation of the engine.

IPC 8 full level  
**C10M 129/54** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 10/12** (2006.01); **C10N 30/04** (2006.01); **C10N 30/10** (2006.01); **C10N 30/12** (2006.01); **C10N 40/25** (2006.01); **C10N 40/26** (2006.01); **C10N 70/00** (2006.01)

CPC (source: EP)  
**C10M 159/22** (2013.01); **C10M 2203/1006** (2013.01); **C10M 2207/026** (2013.01); **C10M 2207/028** (2013.01); **C10M 2207/262** (2013.01); **C10M 2207/281** (2013.01); **C10M 2215/064** (2013.01); **C10M 2219/044** (2013.01); **C10M 2219/046** (2013.01); **C10M 2219/068** (2013.01); **C10M 2223/045** (2013.01); **C10N 2010/02** (2013.01); **C10N 2010/04** (2013.01); **C10N 2010/12** (2013.01); **C10N 2030/04** (2013.01); **C10N 2030/10** (2013.01); **C10N 2030/12** (2013.01); **C10N 2030/42** (2020.05); **C10N 2030/45** (2020.05); **C10N 2030/52** (2020.05); **C10N 2030/70** (2020.05); **C10N 2030/78** (2020.05); **C10N 2040/251** (2020.05); **C10N 2040/253** (2020.05); **C10N 2040/255** (2020.05); **C10N 2040/26** (2013.01); **C10N 2070/02** (2020.05)

C-Set (source: EP)  
1. **C10M 2219/068 + C10N 2010/12**  
2. **C10M 2207/028 + C10N 2010/04**  
3. **C10M 2207/262 + C10N 2010/04**  
4. **C10M 2219/044 + C10N 2010/04**  
5. **C10M 2219/046 + C10N 2010/04**  
6. **C10M 2223/045 + C10N 2010/04**  
7. **C10M 2203/1006 + C10N 2020/02**

Citation (applicant)  
• US 2007027057 A1 20070201 - LE COENT JEAN-LOUIS [FR], et al  
• US 6153565 A 20001128 - SKINNER PHILIP [GB], et al  
• US 6281179 B1 20010828 - SKINNER PHILIP [GB], et al  
• US 6429178 B1 20020806 - SKINNER PHILIP [GB], et al  
• US 6429179 B1 20020806 - SKINNER PHILIP [GB], et al  
• US 3202678 A 19650824 - STUART FRANK A, et al  
• US 3154560 A 19641027 - CARL OSUCH  
• US 3172892 A 19650309  
• US 3024195 A 19620306 - DRUMMOND ALAN Y, et al  
• US 3024237 A 19620306 - DRUMMOND ALAN Y, et al  
• US 3219666 A 19651123  
• US 3216936 A 19651109 - LE SUER WILLIAM M  
• US 3087936 A 19630430 - LE SUER WILLIAM M  
• US 3254025 A 19660531 - LE SUER WILLIAM M  
• EP 0330522 A2 19890830 - EXXON CHEMICAL PATENTS INC [US]  
• "Engine Oil Licensing and Certification System", December 1996, INDUSTRY SERVICES DEPARTMENT

Citation (search report)  
• [X] WO 2008117776 A1 20081002 - IDEMITSU KOSAN CO [JP], et al & EP 2141220 A1 20100106 - IDEMITSU KOSAN CO [JP]  
• [X] WO 2009050984 A1 20090423 - IDEMITSU KOSAN CO [JP], et al & EP 2204438 A1 20100707 - IDEMITSU KOSAN CO [JP]  
• [X] WO 2009054322 A1 20090430 - IDEMITSU KOSAN CO [JP], et al & EP 2223992 A1 20100901 - IDEMITSU KOSAN CO [JP]  
• [X] WO 2008120599 A1 20081009 - IDEMITSU KOSAN CO [JP], et al & EP 2154231 A1 20100217 - IDEMITSU KOSAN CO [JP]  
• [I] WO 2009085943 A1 20090709 - LUBRIZOL CORP [US], et al

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2290038 A2 20110302**; **EP 2290038 A3 20110316**; **EP 2290038 B1 20120321**; AT E550411 T1 20120415; EP 2365049 A1 20110914; EP 2365049 B1 20130403

DOCDB simple family (application)

