

Title (en)  
Lubricating oil composition

Title (de)  
Schmierölsammensetzung

Title (fr)  
Composition d'une huile lubrifiante

Publication  
**EP 2574657 A1 20130403 (EN)**

Application  
**EP 12186481 A 20120928**

Priority  
JP 2011214116 A 20110929

Abstract (en)  
A lubricating oil composition which has a sulfur content of 0.5 wt.% or less and which at least comprises a base oil and the following additive components a) to e): a) an ashless dispersant comprising an alkenyl- or alkyl-succinimide or a derivative thereof; b) an ashless dispersant comprising an alkenyl- or alkyl-succinic ester or a derivative thereof; c) a molybdenum complex of a basic nitrogen-containing compound; d) an alkaline earth metal-containing detergent having TBN of 10-400 mg##KOH/g; and e) an anti-wear agent favorably employed for lubricating internal combustion engines operated using a low sulfur hydrocarbon fuel.

IPC 8 full level  
**C10M 163/00** (2006.01); **C10N 30/06** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP KR US)  
**C10M 141/12** (2013.01 - KR); **C10M 161/00** (2013.01 - US); **C10M 163/00** (2013.01 - EP US); **C10M 169/04** (2013.01 - KR); **C10M 2203/1025** (2013.01 - EP US); **C10M 2205/022** (2013.01 - EP US); **C10M 2207/026** (2013.01 - EP US); **C10M 2207/262** (2013.01 - EP US); **C10M 2207/289** (2013.01 - EP US); **C10M 2207/34** (2013.01 - EP US); **C10M 2215/064** (2013.01 - EP US); **C10M 2215/086** (2013.01 - EP US); **C10M 2219/046** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10M 2227/066** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/43** (2020.05 - EP US); **C10N 2030/52** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP KR US)

C-Set (source: EP US)  
1. **C10M 2205/022 + C10M 2205/024**  
2. **C10M 2203/1025 + C10N 2020/02**

Citation (applicant)  
• JP 2011214116 A 20111027 - NIPPON STEEL CORP  
• JP 2002053888 A 20020219 - CHEVRON ORONITE LTD  
• JP 2004149802 A 20040527 - CHEVRON ORONITE CO  
• US 6562765 B1 20030513 - BOFFA ALEXANDER B [US]  
• US 3929650 A 19751230 - KING JOHN M, et al  
• US 4089790 A 19780516 - ADAMS JOHN HOWARD

Citation (search report)  
• [Y] US 2008234153 A1 20080925 - MATSUI SHIGEKI [JP]  
• [Y] GB 1506786 A 19780412 - SHELL INT RESEARCH  
• [A] US 2010331224 A1 20101230 - BOFFA ALEXANDER B [US], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2574657 A1 20130403**; **EP 2574657 B1 20150610**; CA 2791202 A1 20130329; CA 2791202 C 20190430; CN 103031193 A 20130410; CN 103031193 B 20161026; JP 2013072060 A 20130422; JP 5796869 B2 20151021; KR 20130035227 A 20130408; SG 188779 A1 20130430; US 2013085089 A1 20130404; US 2015210955 A1 20150730

DOCDB simple family (application)  
**EP 12186481 A 20120928**; CA 2791202 A 20120928; CN 201210374538 A 20120929; JP 2011214116 A 20110929; KR 20120108655 A 20120928; SG 2012072708 A 20120928; US 201213629837 A 20120928; US 201514678367 A 20150403