

Title (en)  
A LUBRICATING OIL COMPOSITION

Title (de)  
SCHMIERÖLZUSAMMENSETZUNG

Title (fr)  
COMPOSITION D'HUILE LUBRIFIANTE

Publication  
**EP 2440639 A1 20120418 (EN)**

Application  
**EP 10724842 A 20100609**

Priority  

- EP 2010058085 W 20100609
- EP 09162431 A 20090610
- EP 10724842 A 20100609

Abstract (en)  
[origin: WO2010142724A1] A lubricating oil composition that is free of organic friction modifiers, comprising (A) an oil of lubricating viscosity in a major proportion; (B) as an additive component in a minor proportion, a separately-prepared oil-soluble zinc salt of a dithiophosphoric acid, the dithiophosphoric acid being the reaction product of phosphorus pentasulphide with one or more alcohols, at least 50 mole % of the alcohol(s) having formula ROH where R is linear C18 to C26 saturated or double- bond unsaturated hydrocarbyl group; and (C) as an additive component in a minor proportion, a separately-prepared oil-soluble zinc salt of a dithiophosphoric acid, the dithiophosphoric acid being the reaction product of a phosphorus pentasulphide with one or more aliphatic alcohols consisting of an alcohol or alcohols each having from three to eight carbon atoms.

IPC 8 full level  
**C10M 159/12** (2006.01); **C10M 141/10** (2006.01); **C10N 10/04** (2006.01); **C10N 30/06** (2006.01); **C10N 40/25** (2006.01); **C10N 70/00** (2006.01)

CPC (source: EP US)  
**C10M 137/10** (2013.01 - EP US); **C10M 141/10** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10N 2020/069** (2020.05 - EP US);  
**C10N 2030/06** (2013.01 - EP US); **C10N 2030/40** (2020.05 - EP US); **C10N 2030/42** (2020.05 - EP US); **C10N 2030/70** (2020.05 - EP US);  
**C10N 2040/25** (2013.01 - EP US); **C10N 2070/02** (2020.05 - EP US)

Citation (search report)  
See references of WO 2010142724A1

Citation (examination)  
THORSTEN BARTELS ET AL: "Lubricants and Lubrication", 15 January 2003 (2003-01-15), XP055065530, Retrieved from the Internet <URL:[http://onlinelibrary.wiley.com/store/10.1002/14356007.a15\\_423/asset/a15\\_423.pdf?v=1&t=hhlmwqat&s=58288f9086eac916c4f54424492ec23d17dfc31b](http://onlinelibrary.wiley.com/store/10.1002/14356007.a15_423/asset/a15_423.pdf?v=1&t=hhlmwqat&s=58288f9086eac916c4f54424492ec23d17dfc31b)> [retrieved on 20130606], DOI: 10.1002/14356007.a15

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 SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2010142724 A1 20101216**; CA 2763132 A1 20101216; CA 2763132 C 20140114; CN 102459540 A 20120516; EP 2440639 A1 20120418;  
JP 2012529548 A 20121122; JP 5669831 B2 20150218; SG 176677 A1 20120130; US 2012103299 A1 20120503

DOCDB simple family (application)  
**EP 2010058085 W 20100609**; CA 2763132 A 20100609; CN 201080024286 A 20100609; EP 10724842 A 20100609;  
JP 2012514464 A 20100609; SG 2011089877 A 20100609; US 201013376700 A 20100609