

Title (en)  
LUBRICANT COMPOSITION

Title (de)  
SCHMIERMITTELZUSAMMENSETZUNG

Title (fr)  
COMPOSITION LUBRIFIANTE

Publication  
**EP 3495463 A1 20190612 (EN)**

Application  
**EP 17784675 A 20170802**

Priority  
• JP 2016152180 A 20160802  
• IB 2017000897 W 20170802

Abstract (en)  
Provided is a lubricant composition capable of reducing friction while ensuring abrasion resistance, even when the viscosity is reduced. The lubricant composition contains a lubricant base oil, (A) a detergent containing magnesium, (B) a compound containing boron, and (C) a zinc dialkyl dithiophosphate, wherein the lubricant composition is characterized in that: the amount of component (A) is in the range of 200 to 1200 mass ppm in terms of the concentration of [Mg] according to the mass ppm with respect to the mass of the lubricant composition; the amount of component (C) is in the range of 300 to 1000 mass ppm in terms of the concentration of [P] according to the mass ppm of phosphate by mass with respect to the mass of the lubricant composition; the component (C) comprises at least one selected from a zinc dialkyl dithiophosphate having a primary alkyl group and/or a secondary alkyl group; the lubricant composition includes at least one zinc dialkyl dithiophosphate having a secondary alkyl group; the ratio (mass ratio) of the zinc dialkyl dithiophosphate having a primary alkyl group and the zinc dialkyl dithiophosphate having a secondary alkyl group is in the range of 70:30 to 0:100; and the concentration of [B] according to the mass ppm of boron with respect to the mass of the lubricant composition is in the range of 100 to 300 mass ppm.

IPC 8 full level  
**C10M 163/00** (2006.01)

CPC (source: EP US)  
**C10M 107/02** (2013.01 - US); **C10M 163/00** (2013.01 - EP); **C10M 169/045** (2013.01 - US); **C10M 2201/06** (2013.01 - US); **C10M 2205/003** (2013.01 - US); **C10M 2205/173** (2013.01 - EP); **C10M 2207/026** (2013.01 - EP); **C10M 2209/084** (2013.01 - EP); **C10M 2215/28** (2013.01 - EP US); **C10M 2219/068** (2013.01 - US); **C10M 2223/045** (2013.01 - EP US); **C10M 2229/041** (2013.01 - EP); **C10N 2010/04** (2013.01 - EP US); **C10N 2010/12** (2013.01 - US); **C10N 2030/02** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/68** (2020.05 - EP); **C10N 2040/25** (2013.01 - EP); **C10N 2040/255** (2020.05 - EP US); **C10N 2060/14** (2013.01 - US)

Citation (search report)  
See references of WO 2018033785A1

Cited by  
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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 3495463 A1 20190612**; JP 2018021107 A 20180208; JP 6896384 B2 20210630; SG 11201900784Y A 20190227; US 2020181529 A1 20200611; WO 2018033785 A1 20180222

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**EP 17784675 A 20170802**; IB 2017000897 W 20170802; JP 2016152180 A 20160802; SG 11201900784Y A 20170802; US 201716322141 A 20170802