

Title (en)  
LUBRICATING OIL COMPOSITION

Title (de)  
SCHMIERÖLZUSAMMENSETZUNG

Title (fr)  
COMPOSITION D'HUILE LUBRIFIANTE

Publication  
**EP 3766948 A4 20211208 (EN)**

Application  
**EP 19768345 A 20190314**

Priority  
• JP 2018046837 A 20180314  
• JP 2019010695 W 20190314

Abstract (en)  
[origin: EP3766948A1] Provided is a lubricating oil composition for use in internal-combustion engines, containing a base oil (A), an ashless dispersant (B) containing a non-boronated alkenylsuccinic acid imide (B1) and a boronated alkenylsuccinic acid imide (B2), a thiadiazole compound (C), and an aromatic carboxylate (D) having one or more hydroxy groups, wherein the content of the component (C) is 0.2 to 1.2% by mass based on the total amount of the lubricating oil composition, the content of a zinc dithiophosphate is, as calculated in terms of zinc atoms, less than 500 ppm by mass based on the total amount of the lubricating oil composition, and the content of a metal-based detergent is, as calculated in terms of metal atoms, less than 600 ppm by mass based on the total amount of the lubricating oil composition.

IPC 8 full level  
**C10M 141/10** (2006.01); **C10M 141/12** (2006.01); **C10N 10/04** (2006.01); **C10N 20/02** (2006.01); **C10N 20/04** (2006.01); **C10N 30/00** (2006.01); **C10N 30/02** (2006.01); **C10N 30/04** (2006.01); **C10N 30/06** (2006.01); **C10N 30/08** (2006.01); **C10N 30/12** (2006.01); **C10N 40/25** (2006.01); **C10N 60/14** (2006.01)

CPC (source: EP US)  
**C10M 101/00** (2013.01 - US); **C10M 129/76** (2013.01 - US); **C10M 133/16** (2013.01 - US); **C10M 135/36** (2013.01 - US); **C10M 137/10** (2013.01 - US); **C10M 141/10** (2013.01 - EP); **C10M 141/12** (2013.01 - EP); **C10M 169/04** (2013.01 - US); **C10M 2203/1025** (2013.01 - EP); **C10M 2207/023** (2013.01 - US); **C10M 2207/026** (2013.01 - EP); **C10M 2207/027** (2013.01 - EP); **C10M 2207/284** (2013.01 - US); **C10M 2207/289** (2013.01 - EP); **C10M 2215/064** (2013.01 - EP); **C10M 2215/086** (2013.01 - US); **C10M 2215/28** (2013.01 - EP); **C10M 2219/106** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10N 2010/04** (2013.01 - EP US); **C10N 2010/06** (2013.01 - US); **C10N 2010/12** (2013.01 - US); **C10N 2020/02** (2013.01 - EP); **C10N 2020/04** (2013.01 - EP); **C10N 2030/02** (2013.01 - EP); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/12** (2013.01 - EP); **C10N 2030/20** (2013.01 - EP); **C10N 2030/40** (2020.05 - EP); **C10N 2030/42** (2020.05 - EP); **C10N 2030/45** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP US); **C10N 2060/14** (2013.01 - EP)

Citation (search report)  
• [I] EP 2546324 A1 20130116 - IDEMITSU KOSAN CO [JP]  
• See references of WO 2019177125A1

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**EP 19768345 A 20190314**; JP 2019010695 W 20190314; JP 2020506661 A 20190314; US 201916979675 A 20190314