

Title (en)
ADDITIVE FOR LUBRICATING OIL AND LUBRICATING OIL COMPOSITION

Title (de)
ADDITIV FÜR SCHMIERÖL UND SCHMIERÖLZUSAMMENSETZUNG

Title (fr)
ADDITIF POUR HUILE LUBRIFIANTE ET COMPOSITION D'HUILE LUBRIFIANTE

Publication
EP 1441023 A4 20050119 (EN)

Application
EP 02775451 A 20021031

Priority

- JP 0211366 W 20021031
- JP 2001336748 A 20011101
- JP 2002233358 A 20020809

Abstract (en)
[origin: US2004058830A1] The present invention is intended to provide a lubricating oil additive having high viscosity index improvability and shear stability and a lubricating oil composition containing the additive and having excellent viscosity index and excellent shear stability. The lubricating oil additive comprises an ethylene/alpha-olefin random copolymer having the following properties: (i) said copolymer is a copolymer of ethylene and at least one alpha-olefin selected from alpha-olefins of 3 to 20 carbon atoms and contains at least constituent units derived from ethylene in amounts of 10 to 75% by mol and constituent units derived from at least one alpha-olefin selected from alpha-olefins of 8 to 20 carbon atoms in amounts of 20 to 80% by mol, (ii) the kinematic viscosity at 100° C. is in the range of 500 to 1,000,000 mm²/s, (iii) the intrinsic viscosity [eta] is in the range of 0.15 to 11.0 dl/g, (iv) the molecular weight distribution (Mw/Mn), as measured by GPC, is not more than 4, and (v) the number-average molecular weight is in the range of 5,000 to 30,000.

IPC 1-7
C10M 143/08; **C10M 169/04**; **C10M 101/02**; **C10M 105/02**; **C10M 105/32**; **C10M 143/02**

IPC 8 full level
C10M 143/02 (2006.01); **C10M 143/08** (2006.01); **C10M 169/04** (2006.01)

CPC (source: EP KR US)
C10M 143/02 (2013.01 - EP US); **C10M 143/08** (2013.01 - EP KR US); **C10M 169/041** (2013.01 - EP US); **C10M 2203/1006** (2013.01 - EP US); **C10M 2205/003** (2013.01 - EP US); **C10M 2205/022** (2013.01 - EP US); **C10M 2205/024** (2013.01 - EP US); **C10M 2205/026** (2013.01 - EP US); **C10M 2205/028** (2013.01 - EP US); **C10M 2207/2805** (2013.01 - EP US); **C10N 2020/02** (2013.01 - EP US); **C10N 2020/04** (2013.01 - EP US); **C10N 2030/02** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/08** (2013.01 - EP US); **C10N 2030/68** (2020.05 - EP US)

Citation (search report)

- [X] US 5767331 A 19980616 - ODA HIDEKUNI [JP], et al
- [X] US 4463201 A 19840731 - SCHICK JOHN W [US], et al
- [PX] EP 1241191 A1 20020918 - MITSUI CHEMICALS INC [JP]
- See references of WO 03038017A1

Cited by
EP3375849A4; EP1795580A4; WO2006028169A1; US7820607B2

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
US 2004058830 A1 20040325; CN 100415858 C 20080903; CN 1494582 A 20040505; EP 1441023 A1 20040728; EP 1441023 A4 20050119; JP WO2003038017 A1 20050217; KR 100518425 B1 20050929; KR 20040062422 A 20040707; WO 03038017 A1 20030508

DOCDB simple family (application)
US 25031103 A 20030630; CN 02805793 A 20021031; EP 02775451 A 20021031; JP 0211366 W 20021031; JP 2003540283 A 20021031; KR 20037008914 A 20030701