

Title (en)

Composition of mineral oil and an additive mixture

Title (de)

Rezeptur aus Mineralöl und einer Additivmischung

Title (fr)

Formulation comprenant de l'huile minérale et un mélange d'additifs

Publication

**EP 1685216 B1 20130130 (DE)**

Application

**EP 04790006 A 20041015**

Priority

- DE 2004002314 W 20041015
- DE 10349865 A 20031022
- DE 10349864 A 20031022

Abstract (en)

[origin: WO2005040315A1] An additive mixture as component of a mineral oil composition comprises, as main components and trace proportions of the additive mixture, the following additive components: a) ethylene vinyl ester copolymers modified with polar groups with molecular mass weight averages of 3,000 to 50,000 and an ethylene component of 50 to 90 mass %, b) C12-C40 monocarboxylic acids with C2-C6 oxyalkyl bridges and/or c) partly and/or completely imidated copolymers of unsaturated C4-C20 dicarboxylic anhydrides and vinyl aromatics and/or C2-C36 alpha -olefins, whereby the content of the additive mixture in the mineral oil is 0.005 to 1 mass %. The compositions are suitable for low temperature flowing media and high lubricity mineral oil fuels of high ease of flow.

IPC 8 full level

**C10L 1/14** (2006.01); **C10L 1/19** (2006.01); **C10L 1/195** (2006.01); **C10L 1/197** (2006.01); **C10L 1/236** (2006.01); **C10L 10/08** (2006.01); **C10L 1/18** (2006.01); **C10L 1/22** (2006.01)

CPC (source: EP KR US)

**C10L 1/143** (2013.01 - EP KR US); **C10L 1/191** (2013.01 - KR); **C10L 1/1955** (2013.01 - KR); **C10L 1/1973** (2013.01 - KR); **C10L 1/22** (2013.01 - KR); **C10L 1/2364** (2013.01 - KR); **C10L 10/08** (2013.01 - EP KR US); **C10L 1/191** (2013.01 - EP US); **C10L 1/1955** (2013.01 - EP US); **C10L 1/1973** (2013.01 - EP US); **C10L 1/2364** (2013.01 - EP US); **C10L 2300/30** (2013.01 - KR)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2005040315 A1 20050506**; CA 2542935 A1 20050506; CA 2542935 C 20091110; EA 011358 B1 20090227; EA 200600804 A1 20061027; EP 1685216 A1 20060802; EP 1685216 B1 20130130; ES 2402928 T3 20130510; JP 2007509210 A 20070412; JP 4991302 B2 20120801; KR 100749220 B1 20070813; KR 20060090252 A 20060810; US 2007219100 A1 20070920; US 7776801 B2 20100817

DOCDB simple family (application)

**DE 2004002314 W 20041015**; CA 2542935 A 20041015; EA 200600804 A 20041015; EP 04790006 A 20041015; ES 04790006 T 20041015; JP 2006535936 A 20041015; KR 20067007765 A 20060421; US 57700604 A 20041015