

Title (en)
Compositions based on mineral oil and an additive mixture

Title (de)
Zusammensetzungen aus Mineralöl und einer Additivmischung

Title (fr)
Compositions à base d'huile minérale et d'un mélange d'additifs

Publication
EP 1675932 B1 20081210 (DE)

Application
EP 04817260 A 20041015

Priority
• DE 2004002316 W 20041015
• DE 10349861 A 20031022
• DE 10349859 A 20031022
• DE 10349860 A 20031022

Abstract (en)
[origin: WO2005040316A2] The invention relates to an additive mixture as component of mineral oil compositions, comprising as main component and trace proportions of the additive mixture the following additive components a) ethylene vinyl ester copolymers with molecular mass weight averages of 3,000 to 50,000 and an ethylene proportion of 50 to 90 mass %, b) mixed esters of glycerine, in which 50 to 80 mol % of the hydroxy groups are esterified with unsaturated C12-C40 monocarboxylic acids and 20 to 50 mol % of the hydroxy groups are esterified with partially imidated and/or partially esterified maleic acid anhydride copolymers and/or c) partially and/or completely imidated copolymers of maleic acid anhydride and alpha -methylstyrol with molecular mass number averages of 1,500 to 15,000 and at least one terminal group based on dimeric alpha -methylstyrol, and/or d) wax compositions based on natural starting materials of type d1) wax-like oligomeric esters based on glyceryl monostearate and dimeric acids and/or d2) waxy esters with the consistency of vaseline, based on at least two different straight chain and/or branched C14-C36 alcohols and dimeric acids, whereby the content of the additive mixture in the mineral oil is 0.005 to 1 mass % and the mass proportions of the additive components a/b, or a/c, or a/d is 10: 90 to 90: 10 respectively. The mineral oil compositions are suitable as low temperature flow transportable media and as mineral oil fuels with high ease of flow.

IPC 8 full level
C10L 1/14 (2006.01); **C10L 1/197** (2006.01); **C10L 1/238** (2006.01); **C10L 1/18** (2006.01); **C10L 1/22** (2006.01); **C10L 10/08** (2006.01); **C10L 10/16** (2006.01)

CPC (source: EP KR US)
C10L 1/143 (2013.01 - EP KR US); **C10L 1/146** (2013.01 - EP KR US); **C10L 1/1817** (2013.01 - KR); **C10L 1/1905** (2013.01 - KR); **C10L 1/1915** (2013.01 - KR); **C10L 1/1973** (2013.01 - KR); **C10L 1/1983** (2013.01 - KR); **C10L 1/22** (2013.01 - KR); **C10L 1/2364** (2013.01 - KR); **C10L 10/08** (2013.01 - EP KR US); **C10L 1/1817** (2013.01 - EP US); **C10L 1/1905** (2013.01 - EP US); **C10L 1/1915** (2013.01 - EP US); **C10L 1/1973** (2013.01 - EP US); **C10L 1/1983** (2013.01 - EP US); **C10L 1/2364** (2013.01 - EP US); **C10L 2300/40** (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 2005040316 A2 20050506; **WO 2005040316 A3 20050616**; AT E417088 T1 20081215; CA 2542812 A1 20050506; CA 2542812 C 20100216; DE 502004008662 D1 20090122; EA 011632 B1 20090428; EA 200600809 A1 20061027; EP 1675932 A2 20060705; EP 1675932 B1 20081210; ES 2317082 T3 20090416; JP 2007509212 A 20070412; JP 5033422 B2 20120926; KR 100749209 B1 20070813; KR 20060096439 A 20060911; US 2007130821 A1 20070614

DOCDB simple family (application)
DE 2004002316 W 20041015; AT 04817260 T 20041015; CA 2542812 A 20041015; DE 502004008662 T 20041015; EA 200600809 A 20041015; EP 04817260 A 20041015; ES 04817260 T 20041015; JP 2006535938 A 20041015; KR 20067007786 A 20060421; US 57689704 A 20041015