

Title (en)

Mineral oils containing detergent additives with improved cold flowability

Title (de)

Detergenzadditive enthaltende Mineralöle mit verbesserter Kältefließfähigkeit

Title (fr)

Huiles minérales contenant des additifs détergents avec capacité de fluidité au froid améliorée

Publication

EP 1801187 A3 20080702 (DE)

Application

EP 06025303 A 20061207

Priority

- DE 102005061465 A 20051222
- DE 102006045813 A 20060928

Abstract (en)

[origin: EP1801187A2] Use of at least an oil-soluble polyoxy alkylene compound comprising an oil soluble, amphiphilic compound containing at least a 10-500C- alkyl or alkenyl and a polar group with two or more nitrogen atoms for improving the cold flow characteristic of mineral oil in a distilling agent containing at least an ash free, a detergent additive containing nitrogen, where the oil-soluble polyoxy alkylene compound is e.g. an oil soluble ester, ether, ether/ester of alkoxylated polyol. Use of at least an oil-soluble polyoxy alkylene compound comprising an oil soluble, amphiphilic compound containing at least a 10-500C- alkyl or alkenyl and a polar group with two or more nitrogen atoms for improving the cold flow characteristic of mineral oil in a distilling agent containing at least an ash free, a detergent additive containing nitrogen, where the oil-soluble polyoxy alkylene compound is an oil soluble ester, ether, ether/ester of alkoxylated polyol with at least three 2-5C-alkylene oxide and polyol containing repetitive alkoxy per hydroxy group or at least two aliphatic 12-30C-hydrocarbon. Independent claims are included for: (1) a composition comprising at least an ash free, detergent additive containing nitrogen, which is an oil soluble, amphiphilic compound containing at least a 10-500C- alkyl- or alkenyl with two or more nitrogen atoms bonded to a polar group, and at least an oil soluble polyoxy alkylene compound, which is an oil soluble ester, ether or ether/ester of alkoxylated polyol with at least three 2-5C-alkylene oxide, and repetitive alkoxy per hydroxyl group; and (2) a distillative agent with a sulfur content of less than 100 ppm and 20-90 vol.% of agent exhibits a distillative boiling range of less than 120[deg]C, comprising the composition (10-10000 ppm) and at least a mineral oil cold flow improver.

IPC 8 full level

C10L 1/14 (2006.01); **C10L 1/198** (2006.01); **C10L 10/14** (2006.01)

CPC (source: EP KR US)

C10L 1/143 (2013.01 - EP US); **C10L 1/146** (2013.01 - EP US); **C10L 1/19** (2013.01 - KR); **C10L 1/1985** (2013.01 - EP US); **C10L 1/22** (2013.01 - KR); **C10L 10/14** (2013.01 - EP US); **C10L 1/1641** (2013.01 - EP US); **C10L 1/196** (2013.01 - EP US); **C10L 1/1981** (2013.01 - EP US); **C10L 1/2222** (2013.01 - EP US); **C10L 1/2225** (2013.01 - EP US); **C10L 1/224** (2013.01 - EP US); **C10L 1/2383** (2013.01 - EP US)

Citation (search report)

- [X] US 5522906 A 19960604 - HASHIMOTO JIRO [JP], et al
- [X] EP 1357169 A2 20031029 - INFINEUM INT LTD [GB]
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- [PX] WO 2006124438 A1 20061123 - LUBRIZOL CORP [US], et al
- [X] GB 1059873 A 19670222 - SHELL INT RESEARCH

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Designated contracting state (EPC)

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

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1801187 A2 20070627; **EP 1801187 A3 20080702**; **EP 1801187 B1 20151021**; **EP 1801187 B2 20220323**; CA 2572166 A1 20070622; CA 2572166 C 20140114; ES 2554978 T3 20151228; HU E028316 T2 20161228; JP 2007169648 A 20070705; JP 5590759 B2 20140917; KR 101385485 B1 20140424; KR 20070066987 A 20070627; PL 1801187 T3 20160429; US 2007149417 A1 20070628; US 8153567 B2 20120410

DOCDB simple family (application)

EP 06025303 A 20061207; CA 2572166 A 20061221; ES 06025303 T 20061207; HU E06025303 A 20061207; JP 2006343988 A 20061221; KR 20060132933 A 20061222; PL 06025303 T 20061207; US 64422806 A 20061222