

Title (en)

USE IN MINERAL OILS CONTAINING DETERGENT ADDITIVES AND HAVING IMPROVED COLD FLOW PROPERTIES

Title (de)

VERWENDUNG IN DETERGENZADDITIVE ENTHALTENDEN MINERALÖLEN MIT VERBESSERTER KÄLTEFLIESSFÄHIGKEIT

Title (fr)

UTILISATION DANS DES HUILES MINÉRALES CONTENANT DES ADDITIFS DÉTERGENTS DOTÉES D'UNE FLUIDITÉ À FROID AMÉLIORÉE

Publication

EP 2162514 A1 20100317 (DE)

Application

EP 08773478 A 20080617

Priority

- EP 2008004852 W 20080617
- DE 102007028306 A 20070620

Abstract (en)

[origin: CA2691069A1] The invention relates to the use of at least one oil-soluble compound B) which acts as a nucleating agent for paraffin crystallization and which is selected from ethylene copolymers and 2 to 10.5 mole-% of at least one ethylenically unsaturated carbonic ester for improving the response of cold flow improvers for mineral oils C), which are different from B), in middle distillates that contain at least one ashless, nitrogenous detergent additive A), which is an oil-soluble, amphiphilic compound that comprises at least one alkyl or alkenyl group bound to a polar group, said alkyl or alkenyl group having 10 to 500 C atoms and the polar group having 2 or more nitrogen atoms.

IPC 8 full level

C10L 1/14 (2006.01); **C10L 1/197** (2006.01); **C10L 10/14** (2006.01)

CPC (source: EP KR US)

C10L 1/146 (2013.01 - EP KR US); **C10L 1/1641** (2013.01 - KR); **C10L 1/1963** (2013.01 - EP KR US); **C10L 1/1973** (2013.01 - EP KR US); **C10L 1/1981** (2013.01 - KR); **C10L 1/2222** (2013.01 - KR); **C10L 1/224** (2013.01 - KR); **C10L 1/2383** (2013.01 - KR); **C10L 10/14** (2013.01 - KR); **C10L 1/1641** (2013.01 - EP US); **C10L 1/1981** (2013.01 - EP US); **C10L 1/2222** (2013.01 - EP US); **C10L 1/224** (2013.01 - EP US); **C10L 1/2383** (2013.01 - EP US)

Citation (search report)

See references of WO 2008155090A1

Designated contracting state (EPC)

BE DE FR GB NL

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

DE 102007028306 A1 20081224; CA 2691069 A1 20081224; EP 2162514 A1 20100317; EP 2162514 B1 20170809; JP 2010530453 A 20100909; JP 5800410 B2 20151028; KR 101498002 B1 20150303; KR 20100049036 A 20100511; RU 2010101588 A 20110727; RU 2475518 C2 20130220; US 2010192455 A1 20100805; US 8734542 B2 20140527; WO 2008155090 A1 20081224

DOCDB simple family (application)

DE 102007028306 A 20070620; CA 2691069 A 20080617; EP 08773478 A 20080617; EP 2008004852 W 20080617; JP 2010512592 A 20080617; KR 20107001388 A 20080617; RU 2010101588 A 20080617; US 66499708 A 20080617