

Title (en)
Copolymers based on olefins and ethylenically unsaturated carboxylic acid esters as pour point depressants for fuels and lubricants

Title (de)
Copolymere auf Basis von Olefinen und Estern von ethylenisch ungesättigten Carbonsäuren zur Erniedrigung des CP-Werts von Brennstoffölen und Schmierstoffen

Title (fr)
Copolymères à base d'oléfines et d'esters d'acides carboxyliques éthyléniquement insaturés pour abaisser le point de trouble des combustibles et des lubrifiants

Publication
EP 1746146 A1 20070124 (DE)

Application
EP 05015991 A 20050722

Priority
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Abstract (en)
New copolymer (I) is derived from monomers comprising M1, M2, optionally M3 and optionally M4, where M1 is a mono- or diester of (substituted) maleic or fumaric acid, M2 and M3 are different 2-50 carbon olefins and M4 is (substituted) maleic anhydride. New copolymer (I) is derived from monomers comprising M1, M2, optionally M3 and optionally M4, where M1 is a mono- or diester of (substituted) maleic or fumaric acid of formula (M1), M2 and M3 are different 2-50 carbon olefins and M4 is (substituted) maleic anhydride of formula (M4): [Structures (M1), line 21, and structures (M4), line 41, claim 1, page 18] R1>, R2>H or 1-4 C hydrocarbyl in one case and -COOR5> in the other; R3>, R4>H or 1-4 C hydrocarbyl in one case and -COOR6> in the other; R5>H or 1-40 C hydrocarbyl; R6>1-40 C hydrocarbyl; R7>, R8>H or 1-4 C hydrocarbyl . Independent claims are included for the following: (1) use of a copolymer (I) for as cloud point depressant (CPD) for fuel oils and lubricants; (2) fuel oil composition containing a major weight fraction of middle distillate fuel boiling in the 120-500[deg]C range and a minor fraction of copolymer(s) (I); (3) lubricant composition containing a major weight fraction of a conventional lubricant and a minor fraction of (I); (4) additive package containing (I) in combination with other conventional lubricant or fuel oil additive(s).

IPC 8 full level
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CPC (source: EP)
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Citation (applicant)

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