

Title (en)

Additives to improve the cold properties of fuel oils

Title (de)

Additive zur verbesserung der Kälteeigenschaften von Brennstoffölen

Title (fr)

Additif destiné à l'amélioration des propriétés à froid d'huiles combustibles

Publication

**EP 1881055 A2 20080123 (DE)**

Application

**EP 07011540 A 20070613**

Priority

DE 102006033151 A 20060718

Abstract (en)

Terpolymer (I) of ethylene, at least an ethylenically unsaturated ester and propene, comprises: at least an ethylenically unsaturated ester derived structural units (12-16 mol.%); 1-4 propene derived methyl group per 100 aliphatic carbon atoms; and less than 6.5 chain ending methyl group per 100 methyl group. Independent claims are included for: (1) the preparation of terpolymer comprising reacting a mixture of ethylene, propene and at least a vinyl ester under increased pressure and increased temperature in the presence of a radical forming initiator, and then regulating the molecular weight by the addition of a moderator containing carbonyl group; (2) a composition (II) comprising at least (I) and at least a further different ethylene-copolymer; (3) a flowable additive concentrate with specific solidifying point of -10[deg]C comprising at least (I) (20-40 wt.%) for the improvement of flow characteristics, and at least a solvent (60-80 wt.%); (4) a process to improve the cold flow characteristics of a fuel oil comprising adding a formulation comprising at least 20 wt.% of at least (I), at or below 0[deg]C; and (5) a fuel oil comprising a distillate means and at least (I).

Abstract (de)

Additive zur Verbesserung der Kälteeigenschaften von Brennstoffölen Gegenstand der Erfindung sind Terpolymere aus Ethylen, mindestens einem ethylenisch ungesättigten Ester und Propen, welche a) 12,0 bis 16,0 mol-% von mindestens einem ethylenisch ungesättigten Ester abgeleitete Struktureinheiten enthalten, b) 1,0 bis 4,0 vom Propen abgeleitete Methylgruppen pro 100 aliphatische C-Atome enthalten, und c) weniger als 6,5 von Kettenenden stammende Methylgruppen pro 100 CH<sub>2</sub>-Gruppen aufweisen sowie deren Verwendung als Kälteadditive für Mitteldestillate.

IPC 8 full level

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CPC (source: EP KR US)

**C10L 1/143** (2013.01 - EP US); **C10L 1/19** (2013.01 - KR); **C10L 1/192** (2013.01 - KR); **C10L 1/1973** (2013.01 - EP US); **C10L 10/14** (2013.01 - EP KR US); **C10L 1/195** (2013.01 - EP US); **C10L 1/1981** (2013.01 - EP US); **C10L 1/1985** (2013.01 - EP US); **C10L 1/224** (2013.01 - EP US)

Cited by

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