

Title (en)
Jet fuel compositions

Title (de)
Düsentreibstoffzusammensetzungen

Title (fr)
Compositions de carburant pour turbines

Publication
EP 1357169 A3 20050302 (EN)

Application
EP 03251625 A 20030317

Priority

- EP 03251625 A 20030317
- EP 02252680 A 20020416
- GB 0215418 A 20020704

Abstract (en)

[origin: EP1357168A1] Jet fuel compositions having good low temperature operability. The jet fuel compositions comprise a jet fuel and at least one of the following additives: (i) a copolymer of ethylene and at least one unsaturated ester selected from: vinyl esters having at least 5 carbon atoms, alkyl (meth)acrylates, di-alkyl fumarates and di-alkyl maleates; (ii) a copolymer of ethylene and alkene; (iii) a copolymer of ethylene and less than 15 mole percent of vinyl acetate; (iv) a nucleator; (v) a wax; (vi) a substantially branched alkyl phenol formaldehyde condensate; (vii) a comb polymer; and (viii) a polar nitrogen compound.

IPC 1-7

C10L 1/18; C10L 1/16; C10L 1/22; C10L 1/14

IPC 8 full level

C10L 1/192 (2006.01); **C10L 1/14** (2006.01); **C10L 1/16** (2006.01); **C10L 1/18** (2006.01); **C10L 1/183** (2006.01); **C10L 1/195** (2006.01);
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C10L 1/232 (2006.01); **C10L 1/238** (2006.01); **C10L 1/2383** (2006.01); **C10L 10/14** (2006.01)

CPC (source: EP KR US)

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C10L 1/1963 (2013.01 - EP US); **C10L 1/1966** (2013.01 - EP US); **C10L 1/1973** (2013.01 - EP US); **C10L 1/1981** (2013.01 - EP US);
C10L 1/1985 (2013.01 - EP US); **C10L 1/22** (2013.01 - KR); **C10L 1/221** (2013.01 - EP US); **C10L 1/2222** (2013.01 - EP US);
C10L 1/224 (2013.01 - EP US); **C10L 1/2286** (2013.01 - EP US); **C10L 1/232** (2013.01 - EP US); **C10L 1/238** (2013.01 - EP US);
C10L 1/2383 (2013.01 - EP US)

Citation (search report)

- [X] GB 913715 A 19621228 - EXXON RESEARCH ENGINEERING CO
- [X] US 5767190 A 19980616 - KRULL MATTHIAS [DE], et al
- [X] GB 922748 A 19630403 - EXXON RESEARCH ENGINEERING CO
- [XD] EP 0272889 A2 19880629 - EXXON CHEMICAL PATENTS INC [US]
- [X] CA 676875 A 19631224 - ESSO RESEARCH AND ENGINEERING COMPANY [US]
- [X] CA 695679 A 19641006 - EXXON RESEARCH ENGINEERING CO
- [X] GB 1205772 A 19700916 - STANDARD OIL CO [US]
- [X] US 4802892 A 19890207 - SHIMADA TAKEO [JP], et al
- [XD] US 4211534 A 19800708 - FELDMAN NICHOLAS [US]
- [X] US 3565947 A 19710223 - ILNYCKYJ STEPHAN
- [A] US 4670516 A 19870602 - SACKMANN GUENTER [DE], et al
- [X] GB 1303074 A 19730117
- [X] US 3598552 A 19710810 - COHEN CHARLES A, et al
- [X] US 3524732 A 19700818 - SWEENEY WILLIAM M, et al
- [X] GB 848777 A 19600921 - EXXON RESEARCH ENGINEERING CO
- [X] GB 1282290 A 19720719 - ICI LTD [GB]
- [A] US 5525128 A 19960611 - MCALLEER ANDREW M [GB], et al
- [X] GB 900202 A 19620704 - EXXON RESEARCH ENGINEERING CO
- [XD] US 5593466 A 19970114 - TACK ROBERT D [GB], et al
- [X] US 6254650 B1 20010703 - DOUNIS PANAGIOTIS [GB]
- [A] US 3600311 A 19710817 - NAIMAN MICHAEL I, et al
- [A] US 3620696 A 19711116 - HOLLYDAY WILLIAM C JR, et al
- [XD] WO 0162874 A2 20010830 - LUBRIZOL CORP [US]
- [XD] EP 0857776 A1 19980812 - CLARIANT GMBH [DE]
- [X] US 6270538 B1 20010807 - LEDEORE CHRISTOPHE [FR], et al
- [XD] WO 9319106 A1 19930930 - EXXON CHEMICAL PATENTS INC [US]
- [AD] WO 9116407 A1 19911031 - EXXON CHEMICAL LTD [GB], et al
- [AD] EP 0153176 A2 19850828 - EXXON RESEARCH ENGINEERING CO [US]
- [X] US 4375973 A 19830308 - ROSSI ALBERT [US], et al
- [X] US 4402708 A 19830906 - OSWALD ALEXIS A [US]
- [X] WO 9407842 A1 19940414 - EXXON CHEMICAL PATENTS INC [US], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 14 31 December 1998 (1998-12-31)

Cited by

EP1640438A1; EP1770150A1; KR101143114B1; EP1801187A3; US8153567B2; US8690969B2; EP1533359A1

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