

Title (en)

Diesel fuel compositions containing metallic species and detergent additives

Title (de)

Dieselmotorenzusammensetzungen enthaltend metallische Spezies und Detergensadditive

Title (fr)

Compositions de carburant diesel contenant des espèces métalliques et des additifs détergents

Publication

EP 1884556 A2 20080206 (EN)

Application

EP 07111665 A 20070703

Priority

- EP 06118493 A 20060804
- EP 07111665 A 20070703

Abstract (en)

A diesel fuel composition comprising a major amount of a diesel fuel, a minor amount of at least one metallic species and a minor amount of a detergent additive; wherein the detergent additive comprises at least one compound of formula (I) and/or formula (II): wherein each Ar independently represents an aromatic moiety having 0 to 3 substituents selected from the group consisting of alkyl, alkoxy, alkoxyalkyl, aryloxy, aryloxyalkyl, hydroxy, hydroxyalkyl, halo and combinations thereof; each L is independently a linking moiety comprising a carbon-carbon single bond or a linking group; each Y is independently -OR¹ or a moiety of the formula H(O(CR¹₂)_n)_yX⁻, wherein X is selected from the group consisting of (CR¹₂)_z, O and S; R¹ and R¹' are each independently selected from H, C₁ to C₆ alkyl and aryl; R¹ is selected from C₁ to C₁₀₀ alkyl and aryl; z is 1 to 10; n is 0 to 10 when X is (CR¹₂)_z, and 2 to 10 when X is O or S; and y is 1 to 30; each a is independently 0 to 3, with the proviso that at least one Ar moiety bears at least one group Y; and m is 1 to 100; wherein: each Ar' independently represents an aromatic moiety having 0 to 3 substituents selected from the group consisting of alkyl, alkoxy, alkoxyalkyl, hydroxy, hydroxyalkyl, acyloxy, acyloxyalkyl, acyloxyalkoxy, aryloxy, aryloxyalkyl, aryloxyalkoxy, halo and combinations thereof; each L' is independently a linking moiety comprising a carbon-carbon single bond or a linking group; each Y' is independently a moiety of the formula ZO- or Z(O(CR²₂)_{n'})_{y'}X⁻, wherein X' is selected from the group consisting of (CR²₂)_{z'}, O and S; R² and R²' are each independently selected from H, C₁ to C₆ alkyl and aryl; z' is 1 to 10; n' is 0 to 10 when X' is (CR²₂)_{z'}, and 2 to 10 when X' is O or S; y' is 1 to 30; Z is H, an acyl group, a polyacyl group, a lactone ester group, an acid ester group, an alkyl group or an aryl group; each a' is independently 0 to 3, with the proviso that at least one Ar' moiety bears at least one group Y' in which Z is not H; and m' is 1 to 100.

IPC 8 full level

C10L 1/182 (2006.01); **C10L 1/18** (2006.01); **C10L 1/185** (2006.01); **C10L 1/198** (2006.01); **C10L 10/04** (2006.01); **C10L 10/06** (2006.01)

CPC (source: EP)

C10L 1/182 (2013.01); **C10L 1/1852** (2013.01); **C10L 1/1855** (2013.01); **C10L 1/191** (2013.01); **C10L 1/198** (2013.01); **C10L 1/1981** (2013.01); **C10L 1/1985** (2013.01); **C10L 10/04** (2013.01); **C10L 10/06** (2013.01)

Cited by

US2011219674A1; US2020354642A1; KR20190128723A; KR20190128240A; KR20110069846A; EP3127992A1; AU2017251765B2; US11186792B2; US9243199B2; WO2010042378A1; WO2010150040A1; US9034060B2; WO2021090021A1; WO2013120985A1; US9587193B2; WO2021090020A1; WO2023209370A1; US9157041B2; EP4166633A1; WO2023247973A1; US11085000B2; WO2023209369A1; EP2644684A1; US9045709B2; US9085740B2; US9394499B2; US10450524B2; WO2020058672A1; US11566197B2; WO2013092533A1; EP4212604A1; WO2023134977A1; WO2011110860A1; EP2966151A1; EP3447111A1; EP3601493B1; EP1959003B1; WO2023057748A1; US10351791B2; EP3575385A1; EP3575386A1; US10626341B2; US11066617B2; US11084999B2; US9315752B2; US11396634B2; WO2023047134A1; US11732205B2; US9163190B2; US10689589B2; US11091713B2; EP4339264A2; EP4342963A2; EP2385977B1

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 MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1884556 A2 20080206; EP 1884556 A3 20110914

DOCDB simple family (application)

EP 07111665 A 20070703