

Title (en)

ADDITIVES TO REDUCE METAL PICK-UP IN FUELS

Title (de)

ADDITIVE ZUR VERRINGERUNG DER METALLAUFNAHME IN KRAFTSTOFFEN

Title (fr)

ADDITIFS POUR CARBURANTS PERMETTANT DE RÉDUIRE L'ARRACHEMENT DE MÉTAL

Publication

**EP 2385977 B2 20200101 (EN)**

Application

**EP 09737254 A 20091001**

Priority

- US 2009059164 W 20091001
- US 10430408 P 20081010

Abstract (en)

[origin: WO2010042378A1] The present invention relates to fuel additives, fuel additive compositions and fuel compositions, as well as a method for fueling an internal combustion engine, providing reduced metal pick-up by fuels where the compositions of the present invention contain a hydrocarbon substituted with at least two carboxy functionalities in the form of acids or at least one carboxy functionality in the form of an anhydride.

IPC 8 full level

**C10L 10/04** (2006.01); **C10L 1/14** (2006.01); **C10L 1/188** (2006.01); **C10L 1/198** (2006.01); **C10L 1/222** (2006.01); **C10L 1/2383** (2006.01); **C10L 10/00** (2006.01)

CPC (source: EP KR US)

**C10L 1/14** (2013.01 - KR); **C10L 1/143** (2013.01 - EP US); **C10L 1/188** (2013.01 - KR); **C10L 1/1883** (2013.01 - EP US); **C10L 1/198** (2013.01 - EP KR US); **C10L 10/00** (2013.01 - EP US); **C10L 10/04** (2013.01 - EP KR US); **C10L 1/2222** (2013.01 - EP US); **C10L 1/2383** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

**WO 2010042378 A1 20100415**; AU 2009302649 A1 20100415; AU 2016204848 A1 20160728; AU 2017251765 A1 20171116; AU 2017251765 B2 20190509; BR 122018075929 B1 20220927; BR PI0920665 A2 20180626; BR PI0920665 B1 20220920; CA 2739432 A1 20100415; CA 2739432 C 20181204; CA 3025740 A1 20100415; CA 3025740 C 20211109; CN 102239238 A 20111109; CN 106753620 A 20170531; DK 2385977 T3 20161017; DK 2385977 T4 20200309; DK 3127992 T3 20190318; EP 2385977 A1 20111116; EP 2385977 B1 20160824; EP 2385977 B2 20200101; EP 3127992 A1 20170208; EP 3127992 B1 20181212; EP 3486300 A1 20190522; JP 2012505291 A 20120301; JP 2013234336 A 20131121; JP 2015147942 A 20150820; JP 2017101259 A 20170608; JP 6046347 B2 20161214; KR 101722272 B1 20170331; KR 20110069846 A 20110623; PL 2385977 T3 20170228; PL 2385977 T5 20200727; PL 3127992 T3 20190628; SG 194415 A1 20131129; US 2011219674 A1 20110915

DOCDB simple family (application)

**US 2009059164 W 20091001**; AU 2009302649 A 20091001; AU 2016204848 A 20160711; AU 2017251765 A 20171025; BR 122018075929 A 20091001; BR PI0920665 A 20091001; CA 2739432 A 20091001; CA 3025740 A 20091001; CN 200980148703 A 20091001; CN 201710063619 A 20091001; DK 09737254 T 20091001; DK 16185196 T 20091001; EP 09737254 A 20091001; EP 16185196 A 20091001; EP 18211764 A 20091001; JP 2011531069 A 20091001; JP 2013172919 A 20130823; JP 2015107040 A 20150527; JP 2017040410 A 20170303; KR 20117010466 A 20091001; PL 09737254 T 20091001; PL 16185196 T 20091001; SG 2013075635 A 20091001; US 200913121714 A 20091001