

Title (en)

FUEL COMPOSITIONS AND ADDITIVE CONCENTRATES, AND THEIR USE IN INHIBITING ENGINE COKING

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0247706A2] Coking in and around the injector nozzles of indirect injection compression ignition engines is reduced by means of distillate fuel into which has been blended suitable concentrations of: (a) organic nitrate ignition accelerator, (b) hydrocarbyl amine having from 3 to 60 carbons and from 1 to 10 nitrogens, and (c) N,N'-disalicylidene-1,2-diaminopropane. Additive concentrates can be formulated using such additive combinations.

IPC 1-7

C10L 1/22

IPC 8 full level

C10L 1/22 (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP)

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Cited by

US7229481B2; US5340488A; GB2172012A; US6719814B1; US5460634A; WO2011080250A1; US8152868B2; EP2949732A1; WO2020070246A1; WO2010076303A1; US8771385B2; US8273137B2; EP2078743A1; WO2016188850A1; WO2018077976A1; US11104857B2; WO2011076948A1; US8541635B2; WO2021018895A1; EP2077315A1; US7189269B2; US6200359B1; WO2015091458A1; US9587195B2; US9663735B2; WO2012162403A1; WO2013034617A1; US9752092B2; EP2065367A1; EP2078744A1; WO9301260A1; WO03044134A3; US6733550B1; US7737311B2; EP2907867A1; EP3581637A1; WO2020120416A1; US11867117B2; US7638661B2; WO2010076304A1; US8152869B2; WO2013086138A1; US9017429B2; EP3184612A1; WO2017202735A1; EP2055762A2; US11359155B2; US8987537B1; EP2947135A1; WO2015179017A2; EP2990465A1; US9499758B2; US10457881B2; EP2889361A1; US9057035B1; US9487718B2; WO2017134251A1; US10577551B2; US11254885B2; EP2055761A2; US8475647B2; DE102013112821A1; WO2018206729A1; WO2022228989A1; WO2012163935A2; WO2020109184A1; WO2022228990A1; US11499106B2; EP2371931A1; WO2012098258A1; WO2014096234A1; US8876923B2; US9222047B2; WO2016188858A1; WO2017081199A1; US11001775B2

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