

Title (en)
Fuel compositions and additives therefor.

Title (de)
Kraftstoffzusammensetzungen, und Zusätze dafür.

Title (fr)
Compositions de combustible, et additifs.

Publication
EP 0647700 A1 19950412 (EN)

Application
EP 94307322 A 19941005

Priority
US 13344293 A 19931006

Abstract (en)
A highly effective fuel additive composition for control of intake valve deposits is described. It comprises (a) a gasoline-soluble Mannich reaction product of (i) a high molecular weight alkyl-substituted phenol wherein the alkyl group has a number average molecular weight of from about 600 to about 3000, (ii) amine, and (iii) aldehyde; and (b) a gasoline-soluble poly(oxyalkylene) compound having a viscosity in its undiluted state of at least about 70 cSt at 40 DEG C and at least about 13 cSt at 100 DEG C. These components are proportioned such that there are from about 0.2 to about 5 parts by weight of active Mannich base in (a) per part by weight of (b).

IPC 1-7
C10L 1/14; C10L 10/00

IPC 8 full level
C10L 1/192 (2006.01); **C10L 1/14** (2006.01); **C10L 1/198** (2006.01); **C10L 1/22** (2006.01); **C10L 1/222** (2006.01); **C10L 10/00** (2006.01); **C10L 1/16** (2006.01); **C10L 1/18** (2006.01); **C10L 1/24** (2006.01); **F02B 1/04** (2006.01)

CPC (source: EP)
C10L 1/143 (2013.01); **C10L 1/146** (2013.01); **C10L 10/04** (2013.01); **C10L 1/1608** (2013.01); **C10L 1/1616** (2013.01); **C10L 1/1641** (2013.01); **C10L 1/1824** (2013.01); **C10L 1/1832** (2013.01); **C10L 1/1835** (2013.01); **C10L 1/1852** (2013.01); **C10L 1/1883** (2013.01); **C10L 1/1888** (2013.01); **C10L 1/1905** (2013.01); **C10L 1/191** (2013.01); **C10L 1/1981** (2013.01); **C10L 1/1985** (2013.01); **C10L 1/221** (2013.01); **C10L 1/2222** (2013.01); **C10L 1/2225** (2013.01); **C10L 1/223** (2013.01); **C10L 1/238** (2013.01); **C10L 1/2412** (2013.01); **F02B 1/04** (2013.01)

Citation (search report)
• [PX] EP 0588429 A1 19940323 - SHELL INT RESEARCH [NL]
• [Y] US 4116644 A 19780926 - JACKISCH PHILIP F, et al
• [Y] US 3030939 A 19620424 - BRANDT PRESTON L, et al
• [PY] EP 0569228 A1 19931110 - ETHYL PETROLEUM ADDITIVES INC [US]
• [DY] GB 651712 A 19510411 - CARBIDE & CARBON CHEM CORP
• [DY] CA 2089833 A1 19930821 - SHELL CANADA LTD [CA]
• [DA] EP 0460957 A2 19911211 - TONEN CORP [JP]
• [A] FR 1162768 A 19580917 - SHELL RES LTD
• [A] EP 0398100 A1 19901122 - BASF AG [DE]

Cited by
EP1193308A1; AU2001239902B2; US5634951A; EP0811672A3; EP1010747A1; SG87849A1; EP1008642A1; EP0870819A3; EP1132455A1; EP0894844A1; EP1229100A3; EP1193307A1; SG112811A1; EP0827999A1; US6117198A; EP0831141A1; US5876468A; US7704289B2; US10584297B2; US6514297B1; US6835217B1; WO03078553A3; WO0235069A3; WO2007012580A1; WO0166673A3; WO2006044892A1; EP3133141A1; US6743266B2; US6746495B2; US10221267B2; US11091613B2; US6800103B2; US9062267B2; US9217115B2; US9840608B2; US9951204B2; US10294350B2

Designated contracting state (EPC)
BE DE ES FR GB IT

DOCDB simple family (publication)
EP 0647700 A1 19950412; EP 0647700 B1 19991124; AU 678514 B2 19970529; AU 7445294 A 19950427; CA 2133796 A1 19950407; CA 2133796 C 20050823; DE 69421784 D1 19991230; DE 69421784 T2 20000518; JP 2744205 B2 19980428; JP H07197052 A 19950801

DOCDB simple family (application)
EP 94307322 A 19941005; AU 7445294 A 19941005; CA 2133796 A 19941006; DE 69421784 T 19941005; JP 26606994 A 19941006