

Title (en)

Middle distillate fuel having improved storage stability.

Title (de)

Lagerungsbeständiger Mitteldestillatkraftstoff.

Title (fr)

Combustible de distillat moyen ayant une stabilité au stockage modifiée.

Publication

EP 0385633 A1 19900905 (EN)

Application

EP 90301791 A 19900220

Priority

US 31874889 A 19890302

Abstract (en)

Stabilized middle distillate fuels and stabilizer additives include N,N-dimethylcyclohexylamine, a metal deactivator and a Mannich Base derived from a hindered or p-alkylphenol, formaldehyde and an amine.

IPC 1-7

C10L 1/14; C10L 1/22

IPC 8 full level

C07D 239/04 (2006.01); **C10L 1/14** (2006.01); **C10L 1/22** (2006.01); **C10L 1/222** (2006.01); **C10L 1/232** (2006.01); **C10L 1/18** (2006.01); **C10L 1/24** (2006.01)

CPC (source: EP)

C10L 1/14 (2013.01); **C10L 1/22** (2013.01); **C10L 1/221** (2013.01); **C10L 1/232** (2013.01); **C10L 1/1832** (2013.01); **C10L 1/2222** (2013.01); **C10L 1/2283** (2013.01); **C10L 1/2493** (2013.01)

Citation (search report)

- US 3701641 A 19721031 - RAKOW MARVIN S, et al
- EP 0261795 A1 19880330 - BETZ EUROP INC [US]
- US 2928790 A 19600315 - BARTLESON JOHN D
- US 9442791 B
- US 4166726 A 19790904 - HARLE OLIVER L [US]
- EP 0294045 A2 19881207 - EXXON CHEMICAL PATENTS INC [US]
- EP 0182940 A1 19860604 - MOBIL OIL CORP [US]
- US 4172707 A 19791030 - GARTH BRUCE H [US]
- US 4025316 A 19770524 - STOVER WILLIAM HAROLD

Cited by

AU2013265575B2; EP0534668A1; CN113527163A; EP2052061A4; US5575823A; EP0758661A3; US5783644A; EP0482253A1; US5944858A; CN102037104A; AU2008303345B2; GB2453248B; AU2008303343B2; EP3492562A1; GB2453248A; US8663344B2; US9157041B2; EP0408087A1; WO2014023853A3; WO2009040584A1; WO2013174619A1; WO2009040585A1; US9243199B2; US9388354B2; US8715375B2; US9315752B2; WO02077130A3; WO2009040582A1; EP0956328B2

Designated contracting state (EPC)

BE DE ES FR GB IT NL

DOCDB simple family (publication)

EP 0385633 A1 19900905; EP 0385633 B1 19930407; AU 5060390 A 19900906; AU 619957 B2 19920206; CA 2010183 A1 19900902; DE 69001269 D1 19930513; DE 69001269 T2 19930722; EP 0408087 A1 19910116; JP H02292392 A 19901203

DOCDB simple family (application)

EP 90301791 A 19900220; AU 5060390 A 19900301; CA 2010183 A 19900215; DE 69001269 T 19900220; EP 90116830 A 19900220; JP 4736490 A 19900301