

Title (en)
MIDDLE DISTILLATE FUEL HAVING IMPROVED STORAGE STABILITY

Publication
EP 0385633 B1 19930407 (EN)

Application
EP 90301791 A 19900220

Priority
US 31874889 A 19890302

Abstract (en)
[origin: EP0385633A1] 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 (examination)
US 3442791 A 19690506 - GONZALEZ GERARDO A

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