

Title (en)
BORATED HYDROXYL-CONTAINING COMPOSITION AND LUBRICANTS CONTAINING SAME

Publication
EP 0075478 B1 19870729 (EN)

Application
EP 82304950 A 19820921

Priority
US 30448281 A 19810922

Abstract (en)
[origin: EP0075478A2] Multifunctional additives are provided for fuel and lubricant compositions. The additives are borated hydrocarbyl vicinal diols, made by reacting the diol with a boron-containing compound such as boric acid or trialkyl borate.

IPC 1-7
C10M 139/00

IPC 8 full level
C10L 1/30 (2006.01); **C10L 10/08** (2006.01); **C10M 139/00** (2006.01); **C10N 30/06** (2006.01); **C10N 30/10** (2006.01); **C10N 30/12** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP)
C10L 1/303 (2013.01); **C10M 139/00** (2013.01); **C10M 2227/061** (2013.01); **C10M 2227/062** (2013.01); **C10N 2050/10** (2013.01)

Citation (examination)
US 2795548 A 19570611 - THOMAS JOHN R, et al

Cited by
US5084194A; EP0176202A1; US4781850A; US4961868A; US4780227A; US4828734A; EP0204039A1; US4655948A; EP0220136A3; US4778612A; US8709986B2; WO2009042590A1

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)
EP 0075478 A2 19830330; EP 0075478 A3 19830921; EP 0075478 B1 19870729; AT E28661 T1 19870815; AU 553247 B2 19860710; AU 8801682 A 19830331; BR 8205535 A 19830830; CA 1198726 A 19851231; DE 3276869 D1 19870903; JP H0328478 B2 19910419; JP S5865792 A 19830419; NZ 201613 A 19850913; ZA 825972 B 19840328

DOCDB simple family (application)
EP 82304950 A 19820921; AT 82304950 T 19820921; AU 8801682 A 19820903; BR 8205535 A 19820921; CA 410016 A 19820824; DE 3276869 T 19820921; JP 16481782 A 19820921; NZ 20161382 A 19820817; ZA 825972 A 19820817