

Title (en)

BORATED LUBE OIL ADDITIVE

Publication

EP 0090629 B1 19870916 (EN)

Application

EP 83301723 A 19830328

Priority

US 36295582 A 19820329

Abstract (en)

[origin: EP0090629A2] Borated reaction product of a long-chain aliphatic succinic acid compound and alkylene diamine having an average of at least about 2 N-substituted hydroxyalkyl-groups.

IPC 1-7

C10M 155/04; C07F 5/04

IPC 8 full level

C10M 159/12 (2006.01); **C07F 5/04** (2006.01); **C10M 133/56** (2006.01); **C10M 155/04** (2006.01); **C10M 157/10** (2006.01); **C10N 10/06** (2006.01);
C10N 30/04 (2006.01); **C10N 30/12** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP)

C10M 133/56 (2013.01); **C10M 2215/042** (2013.01); **C10M 2215/086** (2013.01); **C10M 2215/28** (2013.01); **C10M 2227/061** (2013.01);
C10M 2227/062 (2013.01); **C10N 2040/00** (2013.01); **C10N 2040/30** (2013.01); **C10N 2040/32** (2013.01); **C10N 2040/34** (2013.01);
C10N 2040/36 (2013.01); **C10N 2040/38** (2020.05); **C10N 2040/40** (2020.05); **C10N 2040/42** (2020.05); **C10N 2040/44** (2020.05);
C10N 2040/50 (2020.05)

Cited by

US4747850A; US5328622A; US4747965A; GB2216128A; EP0132383A3; US5205947A; EP0172733A3; US5057617A; US5340487A;
EP0169715A3; US4746446A; US4840744A; US4954572A; US4802893A; US4702851A

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0090629 A2 19831005; EP 0090629 A3 19840905; EP 0090629 B1 19870916; AT E29732 T1 19871015; AU 1260183 A 19831006;
AU 560164 B2 19870402; CA 1199318 A 19860114; DE 3373672 D1 19871022; ES 521059 A0 19840516; ES 8405061 A1 19840516;
JP H0672232 B2 19940914; JP S58176296 A 19831015

DOCDB simple family (application)

EP 83301723 A 19830328; AT 83301723 T 19830328; AU 1260183 A 19830318; CA 422728 A 19830302; DE 3373672 T 19830328;
ES 521059 A 19830328; JP 5230783 A 19830328