

Title (en)

Liquid detergents with aromatic borate ester to inhibit proteolytic enzyme.

Title (de)

Flüssiges Reinigungsmittel mit einem aromatischen Boratester zur Inhibition des proteolytischen Enzyms.

Title (fr)

Détergents liquides contenant un ester aromatique de l'acide borique pour inhibition d'enzyme protéolitique.

Publication

EP 0511456 A1 19921104 (EN)

Application

EP 91870072 A 19910430

Priority

EP 91870072 A 19910430

Abstract (en)

Included are liquid detergent compositions comprising anionic and/or nonionic surfactant, proteolytic enzyme, second enzyme, and an aromatic borate ester.

IPC 1-7

C11D 3/386

IPC 8 full level

C11D 3/16 (2006.01); **C11D 3/386** (2006.01)

CPC (source: EP)

C11D 3/38663 (2013.01)

Citation (search report)

- [AD] EP 0381262 A2 19900808 - UNILEVER NV [NL], et al
- [A] FR 2150959 A1 19730413 - ASPRO NICHOLAS LTD

Cited by

EP2929004B1; US6066730A; US5733473A; US6153576A; US6165966A; US5693617A; US6162783A; US5904736A; US5580486A; US5422030A; EP3556836A1; US5691295A; US5855625A; DE102007011236A1; US7098179B2; US6180586B1; DE102007041754A1; WO9404653A1; DE102008014760A1; WO2011098579A1; DE102010038502A1; WO2012019849A2; US8883141B2; US12018236B2; DE102008010429A1; DE102010038496A1; WO2012019844A2; US8592359B2; DE102010038497A1; WO2012019845A2; US8883140B2; US10323217B2; DE102011118027A1; WO2013037609A2; EP3067411A1; US9695461B2; DE102010038498A1; DE102010038499A1; DE102010038501A1; WO2012019846A2; WO2012019848A2; WO2012019847A2; US8642310B2; US8802614B2; US7119080B2; US6747150B2; US6617317B1; US6465433B1; US6548668B2; US6297217B1; US8003791B2; US8378099B2; US7531526B2

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0511456 A1 19921104; AU 2004392 A 19921221; CA 2109525 C 19971028; CN 1067264 A 19921223; JP H06507199 A 19940811; MX 9202071 A 19921101; NZ 242538 A 19950627; PH 31243 A 19980618; TW 237477 B 19950101; WO 9219708 A1 19921112

DOCDB simple family (application)

EP 91870072 A 19910430; AU 2004392 A 19920424; CA 2109525 A 19920424; CN 92104294 A 19920430; JP 51192092 A 19920424; MX 9202071 A 19920430; NZ 24253892 A 19920429; PH 44277 A 19920428; TW 81105198 A 19920630; US 9203373 W 19920424