

Title (en)

Liquid detergents with aromatic borate ester to inhibit proteolytic enzyme.

Title (de)

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

Title (fr)

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

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