

Title (en)

DETERGENT COMPOSITIONS CONTAINING PERCARBONATE, AMYLASE AND PROTEASE

Title (de)

PERCARBONAT , AMYLASE UND PROTEASE ENTHALTENDE WASCHMITTELZUSAMMENSETZUNGEN

Title (fr)

COMPOSITION DETERGENTE CONTENANT DU PERCARBONATE, DE DE L'AMYLASE ET UNE PROTEASE

Publication

EP 0736085 B2 20091216 (EN)

Application

EP 95905359 A 19941215

Priority

- EP 95905359 A 19941215
- EP 93203611 A 19931221
- EP 94870041 A 19940304
- US 9414294 W 19941215

Abstract (en)

[origin: WO9517495A1] A granular detergent composition comprising an alkali metal percarbonate and an amylase enzyme, characterized in that said composition contains an amylase in a weight ratio of percarbonate to amylase of 1:2 to 300:1, preferably 1:2 to 60:1, more preferably 20:1 to 40:1. Both laundry detergent compositions including laundry additives and automatic dishwashing compositions are encompassed by the term "detergent composition" herein. Methods of treatment of specific stains are also encompassed.

IPC 8 full level

C11D 3/10 (2006.01); **C11D 3/386** (2006.01); **C11D 1/14** (2006.01); **C11D 1/83** (2006.01); **C11D 3/00** (2006.01); **C11D 3/12** (2006.01);
C11D 3/37 (2006.01); **C11D 3/39** (2006.01); **C11D 3/395** (2006.01); **C11D 17/06** (2006.01); **C11D 1/22** (2006.01); **C11D 1/29** (2006.01);
C11D 1/72 (2006.01)

CPC (source: EP)

C11D 1/146 (2013.01); **C11D 1/83** (2013.01); **C11D 3/0021** (2013.01); **C11D 3/128** (2013.01); **C11D 3/3776** (2013.01); **C11D 3/38609** (2013.01);
C11D 3/3942 (2013.01); **C11D 17/065** (2013.01); **C11D 1/22** (2013.01); **C11D 1/29** (2013.01); **C11D 1/72** (2013.01)

Citation (opposition)

Opponent :

- WO 9401521 A1 19940120 - PROCTER & GAMBLE [US], et al
- US 5219549 A 19930615 - ONDA MASAYOSHI [JP], et al
- EP 0710714 A2 19960508 - PROCTER & GAMBLE [US]
- EP 0635566 A1 19950125 - PROCTER & GAMBLE [US]
- EP 0651053 A1 19950503 - PROCTER & GAMBLE [US]
- EP 0651052 A1 19950503 - PROCTER & GAMBLE [US]
- WO 9304159 A1 19930304 - KOMMENTUS ECOGREEN AB [SE]
- WO 9206163 A1 19920416 - PROCTER & GAMBLE [US]
- US 3637339 A 19720125 - GRAY FREDERICK WILLIAM
- GB 1466799 A 19770309 - INTEROX

Designated contracting state (EPC)

DE ES FR GB IT NL

DOCDB simple family (publication)

WO 9517495 A1 19950629; CA 2176697 A1 19950629; CA 2176697 C 20000111; CN 1138346 A 19961218; CN 1352235 A 20020605;
DE 69429930 D1 20020328; DE 69429930 T2 20021107; DE 69429930 T3 20100708; EP 0736085 A1 19961009; EP 0736085 A4 19970319;
EP 0736085 B1 20020220; EP 0736085 B2 20091216; ES 2173173 T3 20021016; JP 3474192 B2 20031208; JP H09507509 A 19970729;
PH 11994049605 B1 20010619

DOCDB simple family (application)

US 9414294 W 19941215; CA 2176697 A 19941215; CN 00137049 A 20001230; CN 94194598 A 19941215; DE 69429930 T 19941215;
EP 95905359 A 19941215; ES 95905359 T 19941215; JP 51747495 A 19941215; PH 49605 A 19941219