

Title (en)  
DETERGENT COMPOSITION COMPRISING SOURCE OF HYDROGEN PEROXIDE AND PROTEASE ENZYME

Title (de)  
WASCH- UND REINIGUNGSMITTEL ENTHALTEND WASSERSTOFFPEROXIDQUELLE UND PROTEASE

Title (fr)  
COMPOSITION DETERGENTE COMPORTANT UNE SOURCE DE PEROXYDE D'HYDROGENE ET UNE PROTEASE

Publication  
**EP 0819164 B2 20130313 (EN)**

Application  
**EP 96906561 A 19960220**

Priority  
• GB 9504978 A 19950311  
• GB 9515580 A 19950728  
• US 9602337 W 19960220

Abstract (en)  
[origin: WO9628534A1] There is provided a non-phosphate builder-containing detergent composition comprising a surfactant, and a) at least 0.5 % by weight of a source of hydrogen peroxide; b) from 0.01 % to 10 % by weight of an organic peroxyacid bleach precursor; c) from 0.001 % to 5 % by weight of a proteolytic enzyme; d) an alkalinity source having the capacity to deliver alkalinity to a wash solution as measured by the alkalinity release test described herein, such that the % weight NaOH equivalent of the composition is greater than 10.6 % by weight of the composition, and wherein the detergent composition has a Hydrogen peroxide Precursor Proteolytic enzyme (HPP) Index of at least 0.35 as defined by the formula  $HPP = (\% \text{ weight of precursor} \times \% \text{ weight of proteolytic enzyme}) / (\%AvO_2) < 2$ , wherein the % weight of proteolytic enzyme in the formulation is based on an enzyme activity of 13 knpu/g of the enzyme particle, and wherein the %AvO<sub>2</sub> is the total amount of available oxygen present in the composition.

IPC 8 full level  
**C11D 3/08** (2006.01); **C11D 3/395** (2006.01); **C11D 3/10** (2006.01); **C11D 3/36** (2006.01); **C11D 3/386** (2006.01); **C11D 3/39** (2006.01)

CPC (source: EP)  
**C11D 3/08** (2013.01); **C11D 3/10** (2013.01); **C11D 3/361** (2013.01); **C11D 3/386** (2013.01); **C11D 3/3907** (2013.01); **C11D 3/391** (2013.01); **C11D 3/3917** (2013.01)

Citation (opposition)  
Opponent :  
• EP 0842246 A1 19980520 - PROCTER & GAMBLE [US]  
• EP 0710713 A2 19960508 - PROCTER & GAMBLE [US]  
• EP 0710714 A2 19960508 - PROCTER & GAMBLE [US]  
• EP 0755434 A1 19970129 - PROCTER & GAMBLE [US]  
• EP 0755432 A1 19970129 - PROCTER & GAMBLE [US]  
• WO 9502671 A1 19950126 - PROCTER & GAMBLE [US], et al  
• WO 9424240 A1 19941027 - PROCTER & GAMBLE [US]  
• EP 0634479 A1 19950118 - PROCTER & GAMBLE [US]

Designated contracting state (EPC)  
AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

Designated extension state (EPC)  
LT LV SI

DOCDB simple family (publication)  
**WO 9628534 A1 19960919**; AR 001203 A1 19970924; AT E300603 T1 20050815; AU 4990196 A 19961002; BR 9607676 A 19980707; CA 2214397 A1 19960919; CO 4700545 A1 19981229; CZ 283897 A3 19980218; DE 69634977 D1 20050901; DE 69634977 T2 20060524; DE 69634977 T3 20130725; EP 0819164 A1 19980121; EP 0819164 A4 20010808; EP 0819164 B1 20050727; EP 0819164 B2 20130313; ES 2247603 T3 20060301; ES 2247603 T5 20130708; HU P9801417 A2 19981228; HU P9801417 A3 19990301; MX 9706915 A 19971129; PE 60696 A1 19970110; TR 199700936 T1 19980221

DOCDB simple family (application)  
**US 9602337 W 19960220**; AR 33570696 A 19960311; AT 96906561 T 19960220; AU 4990196 A 19960220; BR 9607676 A 19960220; CA 2214397 A 19960220; CO 96010545 A 19960305; CZ 283897 A 19960220; DE 69634977 T 19960220; EP 96906561 A 19960220; ES 96906561 T 19960220; HU P9801417 A 19960220; MX 9706915 A 19960220; PE 00016196 A 19960308; TR 9700936 T 19960220