

Title (en)  
Enzymatic dishwashing and rinsing process

Title (de)  
Verfahren zum enzymatischen Waschen und Spülen von Geschirr

Title (fr)  
Procédé enzymatique pour le lavage et le rinçage de la vaisselle

Publication  
**EP 0271155 B2 20000906 (EN)**

Application  
**EP 87202387 A 19871202**

Priority  
GB 8629538 A 19861210

Abstract (en)  
[origin: EP0271155A2] The inclusion of lipases in machine dishwashing and rinsing compositions provides for a significant reduction of the spot and film formation on the dishware. Particularly the use of bacterial lipases, which show a positive immunological cross-reaction with the lipase, produced by *Chromobacter viscosum* var. *lipolyticum* NRRL B 3673 provides for such such significant reduction of spot and film formation.

IPC 1-7  
**C11D 3/386**

IPC 8 full level  
**C11D 3/386** (2006.01); **C11D 7/42** (2006.01)

CPC (source: EP)  
**C11D 3/38627** (2013.01)

Citation (opposition)  
Opponent :

- DE 2062465 A1 19720622
- EP 0139329 A2 19850502 - UNILEVER NV [NL], et al
- FR 2071237 A5 19710917 - KRONWITTER WOLFRAM, et al
- EP 0266904 A2 19880511 - UNILEVER PLC [GB], et al
- EP 0171006 A2 19860212 - HENKEL KGAA [DE]
- EP 0171007 A2 19860212 - HENKEL KGAA [DE]
- EP 0171008 A2 19860212 - HENKEL KGAA [DE]
- US 4101457 A 19780718 - PLACE GEOFFREY, et al
- US 4162987 A 19790731 - MAGUIRE EDWARD J JR [US], et al
- EP 0005131 A2 19791031 - BEDDING PETER MICHAEL JOHN

Cited by  
CN109563449A; US5772786A; EP0425214A3; US5527484A; DE4324202A1; GB2247025A; EP0346137A1; US4933287A; US5100796A; EP0712438A4; WO2011049945A2; EP2428572A2; US6718991B1; US8507243B2; US9040279B2; WO8912090A1; WO9708281A1; WO8912089A1; WO2017220422A1; US9040278B2; US11001787B2; US8323945B2; US8975056B2; US9090887B2; EP0700265B1

Designated contracting state (EPC)  
CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0271155 A2 19880615; EP 0271155 A3 19880817; EP 0271155 B1 19910904; EP 0271155 B2 20000906;** AU 609755 B2 19910509; AU 8222387 A 19880616; BR 8706685 A 19880719; DE 3772726 D1 19911010; ES 2025635 T3 19920401; ES 2025635 T5 20010116; GB 8629538 D0 19870121; JP S63161086 A 19880704; ZA 879297 B 19890830

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**EP 87202387 A 19871202;** AU 8222387 A 19871208; BR 8706685 A 19871209; DE 3772726 T 19871202; ES 87202387 T 19871202; GB 8629538 A 19861210; JP 31079487 A 19871208; ZA 879297 A 19871210