

Title (en)  
Method of Laundering a Fabric

Title (de)  
Verfahren zum Waschen eines Stoffs

Title (fr)  
Procédé de lavage d'un textile

Publication  
**EP 2987849 A1 20160224 (EN)**

Application  
**EP 14181485 A 20140819**

Priority  
EP 14181485 A 20140819

Abstract (en)  
A method of laundering a fabric comprising the steps of; (i) contacting the fabric with a lipid esterase selected from class E.C. 3.1.1.3, class E.C. 3.1.1.1, class E.C. 3.1.1.74 or a combination thereof; (ii) contacting the fabric from step (i) with a soil; (iii) contacting the fabric from step (ii) with a surfactant composition and then (iv) contacting the fabric from step (iii) with an aqueous wash liquor comprising a laundry detergent composition, wherein the laundry detergent composition optionally comprises a deterative surfactant, and optionally comprises a lipid esterase.

IPC 8 full level  
**C11D 3/386** (2006.01); **D06M 16/00** (2006.01)

CPC (source: EP)  
**C11D 3/38627** (2013.01); **D06L 1/12** (2013.01); **D06M 16/003** (2013.01)

Citation (applicant)

- US 6265191 B1 20010724 - MIZUSAWA EUGENE A [US], et al
- EP 0218272 A1 19870415 - GIST BROCADES NV [NL]
- EP 0331376 A2 19890906 - AMANO PHARMA CO LTD [JP]
- GB 1372034 A 19741030 - UNILEVER LTD
- WO 9506720 A1 19950309 - SHOWA DENKO KK [JP], et al
- WO 9627002 A1 19960906 - SHOWA DENKO KK [JP], et al
- WO 9612012 A1 19960425 - SOLVAY [BE], et al
- JP S6474992 A 19890320 - FUJI OIL CO LTD
- WO 9116422 A1 19911031 - KALI CHEMIE AG [DE]
- US 5887753 A 19990330 - POOLMAN GERARD CHARLES [BE]
- WO 0207962 A1 20020131 - AMERASIA INT TECHNOLOGY INC [US], et al
- WO 0207963 A1 20020131 - DEXTER CORP [US]
- WO 02079366 A1 20021010 - UNILEVER NV [NL], et al
- WO 02079370 A1 20021010 - UNILEVER NV [NL], et al
- WO 2014114570 A1 20140731 - UNILEVER PLC [GB], et al
- WO 03076580 A2 20030918 - GENENCOR INT [US], et al
- WO 2009007510 A1 20090115 - VALTION TEKNILLINEN [FI], et al
- WO 9613580 A1 19960509 - NOVO NORDISK AS [DK], et al
- WO 0034450 A1 20000615 - NOVO NORDISK AS [DK], et al
- WO 0192502 A1 20011206 - NOVOZYMES AS [DK]
- US 2008034511 A1 20080214 - BATCHELOR STEPHEN N [GB], et al
- US 8268016 B2 20120918 - BATCHELOR STEPHEN NORMAN [GB], et al
- US 7208459 B2 20070424 - SADLOWSKI EUGENE STEVEN [US], et al
- WO 2012119859 A1 20120913 - UNILEVER PLC [GB], et al
- WO 2012130492 A1 20121004 - UNILEVER PLC [GB], et al
- WO 2012126665 A1 20120927 - UNILEVER PLC [GB], et al
- WO 2011011799 A2 20110127 - PROCTER & GAMBLE [US], et al
- WO 2012054058 A1 20120426 - PROCTER & GAMBLE [US], et al
- WO 2012166699 A1 20121206 - PROCTER & GAMBLE [US], et al
- WO 2012166768 A1 20121206 - PROCTER & GAMBLE [US], et al
- WO 2011098355 A1 20110818 - UNILEVER PLC [GB], et al
- US 2012225803 A1 20120906 - BATCHELOR STEPHEN NORMAN [GB], et al
- US 2012090102 A1 20120419 - BATCHELOR STEPHEN NORMAN [GB], et al
- US 7686892 B2 20100330 - SMETS JOHAN [BE], et al
- WO 2010142503 A1 20101216 - UNILEVER PLC [GB], et al
- WO 2008087497 A1 20080724 - PROCTER & GAMBLE [US], et al
- US 2012129752 A1 20120524 - STENGER PATRICK CHRISTOPHER [US], et al
- US 8138222 B2 20120320 - VALENTI MICHAEL A [US], et al
- US 7909890 B2 20110322 - KRAMER HANS [CH], et al
- US 6312936 B1 20011106 - POULOSE AYROOKARAN J [US], et al
- US 4760025 A 19880726 - ESTELL DAVID A [US], et al
- US 6020303 A 20000201 - CRIPE THOMAS ANTHONY [US], et al
- US 6060443 A 20000509 - CRIPE THOMAS ANTHONY [US], et al
- DARTOIS ET AL., BIOCHEMICA ET BIOPHYSICA ACTA, vol. 1131, 1993, pages 253 - 360
- H. KONTKANEN ET AL., ENZYME MICROB TECHNOL., vol. 39, 2006, pages 265 - 273
- H. KONTKANEN ET AL., APP. ENVIRON. MICROBIOLOGY, 2009, pages 2148 - 2157
- NEEDLEMAN, S. B.; WUNSCH, C. D., J. MOL. BIOL., vol. 48, 1970, pages 443 - 453

Citation (search report)

- [E] EP 2767581 A1 20140820 - PROCTER & GAMBLE [US]
- [Y] US 6495357 B1 20021217 - FUGLSANG CLAUS CRONE [DK], et al
- [YD] US 6265191 B1 20010724 - MIZUSAWA EUGENE A [US], et al
- [A] GB 1442418 A 19760714 - PROCTER & GAMBLE

- [A] EP 2251404 A1 20101117 - PROCTER & GAMBLE [US]

Cited by

CN113767163A; US11168285B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2987849 A1 20160224**

DOCDB simple family (application)

**EP 14181485 A 20140819**