

Title (en)

DETERGENT COMPOSITION COMPRISING LIPASE ENZYME AND CATIONIC SURFACTANT

Title (de)

WASCHMITTELZUSAMMENSETZUNG ENTHALTEND EIN LIPASE ENZYM SOWIE EIN KATIONISCHES TENSID

Title (fr)

COMPOSITION DETERGENTE COMPRENANT UNE ENZYME LIPASE ET UN TENSIOACTIF CATIONIQUE

Publication

EP 0934391 A1 19990811 (EN)

Application

EP 97945461 A 19971002

Priority

- GB 9621799 A 19961018
- GB 9621791 A 19961018
- GB 9705736 A 19970320
- US 9717816 W 19971002

Abstract (en)

[origin: WO9817768A1] The present invention relates to detergent compositions or components thereof containing a lipolytic enzyme and one or more cationic surfactants of the formula: $R<1>R<2>R<3>R<4>N<+>X<->$ in which $R<1>$ is a hydroxyalkyl group having no greater than 6 carbon atoms; each of $R<2>$ and $R<3>$ is independently selected from C1-4 alkyl or alkenyl; $R<4>$ is a C5-11 alkyl or alkenyl; and $X<->$ is a counterion.

IPC 1-7

C11D 3/386; **C11D 3/26**

IPC 8 full level

C11D 1/22 (2006.01); **C11D 1/28** (2006.01); **C11D 1/62** (2006.01); **C11D 1/65** (2006.01); **C11D 1/66** (2006.01); **C11D 1/86** (2006.01); **C11D 3/10** (2006.01); **C11D 3/12** (2006.01); **C11D 3/37** (2006.01); **C11D 3/386** (2006.01); **C11D 3/39** (2006.01); **C11D 17/00** (2006.01); **C11D 1/14** (2006.01); **C11D 1/52** (2006.01); **C11D 1/72** (2006.01)

CPC (source: EP)

C11D 1/22 (2013.01); **C11D 1/28** (2013.01); **C11D 1/62** (2013.01); **C11D 1/65** (2013.01); **C11D 1/66** (2013.01); **C11D 1/86** (2013.01); **C11D 3/10** (2013.01); **C11D 3/1273** (2013.01); **C11D 3/128** (2013.01); **C11D 3/37** (2013.01); **C11D 3/3723** (2013.01); **C11D 3/38627** (2013.01); **C11D 3/3942** (2013.01); **C11D 3/3945** (2013.01); **C11D 17/0069** (2013.01); **C11D 1/143** (2013.01); **C11D 1/146** (2013.01); **C11D 1/525** (2013.01); **C11D 1/662** (2013.01); **C11D 1/72** (2013.01)

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)

WO 9817768 A1 19980430; AR 010519 A1 20000628; AT E230011 T1 20030115; CA 2268669 A1 19980430; DE 69718040 D1 20030130; DE 69718040 T2 20030925; EP 0934391 A1 19990811; EP 0934391 A4 19991208; EP 0934391 B1 20021218; MA 24379 A1 19980701; MX 9903682 A 19990901

DOCDB simple family (application)

US 9717816 W 19971002; AR P970104794 A 19971017; AT 97945461 T 19971002; CA 2268669 A 19971002; DE 69718040 T 19971002; EP 97945461 A 19971002; MA 24838 A 19971017; MX 9903682 A 19990419