

Title (en)
AUTOMATIC DISHWASHING DETERGENT COMPOSITION

Title (de)
MASCHINELLES GESCHIRRSPÜLMITTEL

Title (fr)
DÉTERGENT POUR LAVE-VAISSELLE

Publication
EP 2446013 B1 20170809 (DE)

Application
EP 10722376 A 20100617

Priority
• EP 2010058537 W 20100617
• DE 102009027158 A 20090624

Abstract (en)
[origin: WO2010149564A1] Detergent combinations comprising - a detergent formulation B comprising b1) at least one nonionic surfactant and b2) at least one cleaning-active enzyme; - a rinse aid composition C comprising c1) at least one nonionic surfactant, are suitable, owing to their thermal stability, especially for performance of automatic metering processes in machine dishwashing, and are additionally notable for a significant improvement in cleaning performance compared to conventional processes.

IPC 8 full level
C11D 17/04 (2006.01); **A47L 15/44** (2006.01); **C11D 1/72** (2006.01); **C11D 3/386** (2006.01)

CPC (source: EP US)
C11D 1/721 (2013.01 - EP US); **C11D 3/386** (2013.01 - EP US); **C11D 17/041** (2013.01 - EP US); **C11D 2111/14** (2024.01 - EP US)

Citation (opposition)
Opponent : Reckitt Benckiser Finish B. V.
• WO 2009024364 A1 20090226 - HENKEL AG & CO KGAA [DE], et al
• WO 2009033972 A1 20090319 - HENKEL AG & CO KGAA [DE], et al
• WO 9422800 A1 19941013 - OLIN CORP [US]
• US 4898621 A 19900206 - PRUEHS HORST [DE], et al
• US 2003139306 A1 20030724 - KAHRE JOERG [DE], et al
• WO 2007065529 A1 20070614 - MIELE & CIE [DE], et al
• US 2009000644 A1 20090101 - DRUECKER MARKUS [DE], et al
• US 4009801 A 19770301 - WILLIAMS RICHARD B
• US 2012090644 A1 20120419 - KESSLER ARND [DE], et al

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 SE SI SK SM TR

DOCDB simple family (publication)
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DOCDB simple family (application)
DE 102009027158 A 20090624; EP 10722376 A 20100617; EP 17181064 A 20100617; EP 2010058537 W 20100617; ES 10722376 T 20100617; ES 17181064 T 20100617; HU E10722376 A 20100617; PL 10722376 T 20100617; PL 17181064 T 20100617; US 201113329435 A 20111219; US 201213454800 A 20120424