

Title (en)  
MULTI-PHASE PRE-PORZIONED CLEANING AGENT

Title (de)  
MEHRPHASIGES VORPORTIONIERTES REINIGUNGSMITTEL

Title (fr)  
DÉTERGENTS POLYPHASIQUES PRÉPORTIONNÉS

Publication  
**EP 3102658 A1 20161214 (DE)**

Application  
**EP 15704269 A 20150204**

Priority  
• DE 102014202221 A 20140206  
• EP 2015052300 W 20150204

Abstract (en)  
[origin: WO2015118011A1] The invention relates to pre-portioned multi-phase cleaning agents, in particular dishwasher detergents in a water-soluble packaging having at least two compartments, comprising at least one solid, preferably powder phase and at least one liquid phase, characterized in that the liquid phase (or the liquid phases) a) contains at least one alkoxyated component, preferably two, three, four, or more alkoxyated components, according to formula 1,  $R1-O-(CH_2-CH(R_2)-O)_w-(CH_2-CH(R_3)-O)_x-(CH_2-CH(R_4)-O)_y-(CH_2-CH(R_5)-O)_z-R_6$ , R1 being selected from -H, -CH<sub>3</sub>, straight-chain or branched, saturated or mono- or polyunsaturated, C<sub>2</sub>-24 alkyl group or alkenyl group; R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> being selected independently of each other from -H, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, CH(CH<sub>3</sub>)<sub>2</sub>, preferably -H or -CH<sub>3</sub>; R<sub>6</sub> being selected from -H, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CH(CH<sub>3</sub>)<sub>2</sub>, -CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, -C(CH<sub>3</sub>)<sub>3</sub>, C<sub>5</sub>-24 alkyl or alkenyl, and -CH<sub>2</sub>CH(OH)R<sub>7</sub>, R<sub>7</sub> being a straight-chain or branched, saturated or mono- or polyunsaturated C<sub>6</sub>-26 alkyl group or alkenyl group; and w, x, y, and z being able to assume values from 1 to 120 independently of each other and x, y, and/or z being able to equal 0, b) is substantially free of organic components that have an average molecular weight of less than 175 g/mol, preferably of less than 150 g/mol; and c) is substantially free of water. The invention further relates to the use of said cleaning agents.

IPC 8 full level  
**C11D 1/72** (2006.01); **C11D 3/37** (2006.01); **C11D 7/04** (2006.01)

CPC (source: EP)  
**C11D 1/72** (2013.01); **C11D 1/721** (2013.01); **C11D 3/3707** (2013.01); **C11D 17/045** (2013.01)

Citation (search report)  
See references of WO 2015118011A1

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)  
**DE 102014202221 A1 20150806**; EP 3102658 A1 20161214; EP 3102658 B1 20190403; PL 3102658 T3 20190930;  
WO 2015118011 A1 20150813

DOCDB simple family (application)  
**DE 102014202221 A 20140206**; EP 15704269 A 20150204; EP 2015052300 W 20150204; PL 15704269 T 20150204