

Title (en)
LOW PH LAUNDRY DETERGENT COMPOSITION

Title (de)
WASCHMITTELZUSAMMENSETZUNG MIT NIEDRIGEM PH

Title (fr)
COMPOSITION DE DÉTERGENT POUR LESSIVE À BAS PH

Publication
EP 3301148 A1 20180404 (EN)

Application
EP 16192033 A 20161003

Priority
EP 16192033 A 20161003

Abstract (en)
The present invention relates to a solid free flowing particulate laundry detergent composition comprising: (a) anionic deterative surfactant; (b) from 0wt% to 8wt% zeolite builder; (c) from 0wt% to 4wt% phosphate builder; (d) from 0wt% to 8wt% sodium carbonate; (e) from 0wt% to 8wt% sodium silicate; (f) from 4wt% to 20wt% organic acid; and (g) polyester soil release polymer, wherein the polyester soil release polymer has the structure: wherein n is from 1 to 10; m is from 1 to 15; X is H or SO₃ Me; wherein Me is H, Na⁺, Li⁺, K⁺, Mg²⁺, Ca²⁺, Al³⁺, ammonium, mono-, di-, tri-, or tetra-alkylammonium; wherein the alkyl groups are C₁-C₁₈ alkyl or C₂-C₁₀ hydroxyalkyl, or any mixture thereof; R₁ are independently selected from H or C₁-C₁₈ n- or iso-alkyl; and/or the polyester soil release polymer consists of structure units (1) to (3): wherein: a, b and c are from 1 to 10; x, y is from 1 to 10; z is from 0.1 to 10; Me is H, Na⁺, Li⁺, K⁺, M²⁺, Ca²⁺, Al³⁺, ammonium, mono-, di-, tri-, or tetra-alkylammonium wherein the alkyl groups are C₁-C₁₈ alkyl or C₂-C₁₀ hydroxyalkyl, or any mixture thereof; R₁ are independently selected from H or C₁-C₁₈ n- or iso-alkyl; R₂ is a linear or branched C₁-C₁₈ alkyl, or a linear or branched C₂-C₃₀ alkenyl, or a cycloalkyl group with 5 to 9 carbon atoms, or a C₆-C₃₀ aryl group, or a C₆-C₃₀ arylalkyl group, wherein the composition at 1wt% dilution in deionized water at 20°C, has an equilibrium pH in the range of from 6.5 to 9.0, wherein the composition comprises from 30wt% to 90wt% base detergent particle, wherein the base detergent particle comprising (by weight of the base detergent particle): (a) from 4wt% to 35wt% anionic deterative surfactant; (b) optionally, from 1wt% to 8wt% zeolite builder; (c) from 0wt% to 4wt% phosphate builder; (d) from 0wt% to 8wt% sodium carbonate; (e) from 0wt% to 8wt% sodium silicate; (f) from 1wt% to 10wt% organic acid; and (g) optionally, from 1wt% to 10wt% magnesium sulphate.

IPC 8 full level
C11D 1/02 (2006.01); **C11D 3/00** (2006.01); **C11D 3/20** (2006.01); **C11D 3/37** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP)
C11D 1/02 (2013.01); **C11D 3/0036** (2013.01); **C11D 3/2086** (2013.01); **C11D 3/3715** (2013.01); **C11D 17/06** (2013.01)

Citation (search report)
• [Y] WO 0018856 A1 20000406 - PROCTER & GAMBLE [US], et al
• [Y] WO 03038028 A2 20030508 - HENKEL KGAA [DE], et al
• [Y] WO 9512658 A1 19950511 - PROCTER & GAMBLE [US], et al
• [Y] WO 9117232 A1 19911114 - PROCTER & GAMBLE [US]
• [Y] WO 2015169851 A1 20151112 - BASF SE [DE], et al
• [Y] WO 2013036662 A1 20130314 - SUN PRODUCTS CORP [US], et al
• [Y] WO 2007144857 A1 20071221 - PROCTER & GAMBLE [US], et al
• [Y] WO 2013184981 A2 20131212 - PROCTER & GAMBLE [US]

Cited by
US2021371840A1; CN109135960A; US10550357B2; US11332701B2; US10501711B2

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 3301148 A1 20180404

DOCDB simple family (application)
EP 16192033 A 20161003