

Title (en)

Heavy duty liquid laundry detergents containing anionic and nonionic surfactant, builder and proteolytic enzyme.

Title (de)

Flüssige Universalwaschmittel, welche anionische und nichtionische oberflächenaktive Mittel, Gerüststoffe und proteolytisches Enzym enthalten.

Title (fr)

Compositions détergentes liquides renforcées, contenant des surfactants anioniques et nonioniques, des agents de renforcement et un enzyme protéolitique.

Publication

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Application

EP 89870064 A 19890510

Priority

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- US 28873888 A 19881222
- US 34191889 A 19890426

Abstract (en)

[origin: EP0342177A2] Heavy duty liquid laundry detergent compositions containing synthetic anionic and ethoxylated nonionic surfactant, detergency builder, specific proteolytic enzyme, an enzyme stabilization system, and water are disclosed. The compositions have a pH in a 10% by weight solution in water at 20 DEG C of between about 7.0 and 9.0, a Critical Micelle Concentration of less than or equal to about 200 ppm, and an air/water Interfacial Tension above the Critical Micelle Concentration of less than or equal to about 32 dynes/cm at 35 DEG C in distilled water. The compositions are preferably clear, homogeneous, stable and provide good cleaning performance, particularly through-the-wash on enzyme-sensitive stains.

IPC 1-7

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IPC 8 full level

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CPC (source: EP KR)

C11D 1/00 (2013.01 - KR); **C11D 1/83** (2013.01 - EP); **C11D 3/38618** (2013.01 - EP); **C11D 1/146** (2013.01 - EP); **C11D 1/29** (2013.01 - EP); **C11D 1/72** (2013.01 - EP)

Cited by

EP0554943A3; USH1478H; USH1467H; US5308530A; US6365785B1; US5419853A; GB2298211A; EP3257377A1; EP0638845A1; US5645980A; EP2650354A3; EP3031894A1; AU749498B2; JP2017509774A; US10093887B2; US9719055B2; US6576799B1; US8753861B2; WO2017216062A1; WO2010056653A3; WO9735949A1; EP2216392A1; WO2010088163A1; WO2012016104A2; US8685171B2; EP2216390A1; WO2010088161A1; US10785989B2; US6495727B1; EP2216391A1; WO2010088164A1; EP2412792A1; WO2012015852A1; US9109189B2; WO2013016030A1; WO2013016031A1; US9951298B2; WO0036062A3; EP2213713A1; EP2213714A1; EP2213715A1; WO2010088158A1; WO2010088159A1; WO2010088162A1; US8575083B2; EP3023483A1; EP3202880B1; EP3202879B1; EP3202879B2

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