

Title (en)

FREE-FLOWING AGGLOMERATED NONIONIC SURFACTANT DETERGENT COMPOSITION AND PROCESS FOR MAKING SAME

Title (de)

FREIFLIESENDES AGGLOMERISIERTES NIOTENSIDHALTIGES WASCHMITTEL SOWIE VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

COMPOSITION DETERGENTE TENSIOACTIVE NON-IONIQUE FLUIDE AGGLOMEREE ET SON PROCEDE DE FABRICATION

Publication

EP 0888425 A4 20000823 (EN)

Application

EP 97908065 A 19970310

Priority

- US 9703741 W 19970310
- US 61644396 A 19960315
- US 61656896 A 19960315

Abstract (en)

[origin: WO9733959A1] A free-flowing agglomerated powder detergent process and the resulting composition includes from about 5 % to about 80 % of an alkali metal carbonate; from about 5 % to about 50 % of a detergent surfactant, and up to about 25 % of an alkali metal salt of a carboxylic acid, wherein the carboxylic acid is selected from the group of carboxylic acids that, below a first temperature, have a greater water solubility than the water solubility of its corresponding alkali-metal salt. The alkali-metal salt is preferably provided solely by the reaction of (a) a premix comprising the alkali-metal carbonate coated with the surfactant, (b) a carboxylic acid selected from the group consisting of citric acid, malic acid, and mixtures thereof, and (c) water

IPC 1-7

C11D 1/66; **C11D 3/10**; **C11D 11/00**; **C11D 17/06**; **C11D 3/20**; **C11D 1/72**; **C11D 17/00**

IPC 8 full level

C11D 1/66 (2006.01); **C11D 1/72** (2006.01); **C11D 3/10** (2006.01); **C11D 3/20** (2006.01); **C11D 11/00** (2006.01); **C11D 17/06** (2006.01)

CPC (source: EP)

C11D 1/72 (2013.01); **C11D 3/10** (2013.01); **C11D 3/2075** (2013.01); **C11D 3/2086** (2013.01); **C11D 11/0082** (2013.01)

Citation (search report)

- [DX] US 4473485 A 19840925 - GREENE ALAN P [US]
- [X] EP 0534525 A2 19930331 - UNILEVER NV [NL], et al
- [X] DE 4435743 A1 19950824 - CHEMOLUX SARL [LU]
- See references of WO 9733959A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 9733959 A1 19970918; AR 006251 A1 19990811; AT E223472 T1 20020915; AU 1990697 A 19971001; AU 715795 B2 20000210; CA 2248994 A1 19970918; CA 2248994 C 20010515; CN 1233275 A 19991027; DE 69715170 D1 20021010; DE 69715170 T2 20030528; EP 0888425 A1 19990107; EP 0888425 A4 20000823; EP 0888425 B1 20020904; HK 1017707 A1 19991126; JP 2002511107 A 20020409

DOCDB simple family (application)

US 9703741 W 19970310; AR P970101047 A 19970314; AT 97908065 T 19970310; AU 1990697 A 19970310; CA 2248994 A 19970310; CN 97194403 A 19970310; DE 69715170 T 19970310; EP 97908065 A 19970310; HK 99102858 A 19990706; JP 53274497 A 19970310