

Title (en)
DETERGENT COMPOSITIONS

Title (de)
REINIGUNGSMITTELZUSAMMENSETZUNGEN

Title (fr)
COMPOSITIONS DE DETERGENTS

Publication
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Application
EP 91915442 A 19910805

Priority
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• US 9105533 W 19910805

Abstract (en)
[origin: WO9203525A1] Particulate laundry detergent compositions are disclosed incorporating 5 % to 50 % of a surfactant, from 10 % to 95 % of a three-component non-phosphorus builder system comprising a mixture of a sodium aluminosilicate zeolite, a water-soluble monomeric or oligomeric carboxylate chelating agent and a crystalline layered sodium silicate, and from 0 % to 40 % of non-surfactant, non-builder detergent ingredients. The crystalline layered silicate is of composition $\text{NaMSixO}_{2x+1} \cdot y\text{H}_2\text{O}$ where M is sodium or hydrogen, x is a number from 1.9 to 4 and y is a number from 0 to 20. Preferably M is sodium, x is 2 and y is O.

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C11D 3/12; **C11D 3/20**

IPC 8 full level
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C11D (2006.01)

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Citation (opposition)
Opponent :
• EP 0164514 B1 19890614
• DE 3144297 A1 19830519 - DEGUSSA [DE]
• EP 0337217 A2 19891018 - HOECHST AG [DE]
• EP 0337219 A2 19891018 - HOECHST AG [DE]
• EP 0240356 A1 19871007 - UNILEVER PLC [GB], et al
• EP 0283885 A2 19880928 - HENKEL KGAA [DE]
• JP H02178397 A 19900711 - LION CORP
• JP H02178399 A 19900711 - LION CORP
• US 4664839 A 19870512 - RIECK HANS-PETER [DE]

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WO 9203525 A1 19920305; AT E152474 T1 19970515; AU 661826 B2 19950810; AU 8497091 A 19920317; BR 9106749 A 19930720; CA 2088275 A1 19920218; CN 1059930 A 19920401; CZ 21693 A3 19940413; DE 69125938 D1 19970605; DE 69125938 T2 19971218; DE 69125938 T3 20010607; DK 0543911 T3 19971013; DK 0543911 T4 20010319; EG 19654 A 19950830; EP 0543911 A1 19930602; EP 0543911 A4 19930825; EP 0543911 B1 19970502; EP 0543911 B2 20001108; ES 2100957 T3 19970701; ES 2100957 T5 20010201; FI 930673 A0 19930216; FI 930673 A 19930216; GB 9018157 D0 19901003; GR 3023501 T3 19970829; GR 3035134 T3 20010430; HU 9300426 D0 19930528; HU T63649 A 19930928; IE 912924 A1 19920226; JP 3615756 B2 20050202; JP H06500141 A 19940106; MA 22257 A1 19920401; MX 9100708 A 19920401; NO 930528 D0 19930215; NO 930528 L 19930419; NZ 239436 A 19930826; PL 172300 B1 19970930; PT 98654 A 19920630; PT 98654 B 19990129; SK 10093 A3 19930707; TR 26080 A 19941215; TW 217420 B 19931211

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