

Title (en)
Phosphate free detergent

Title (de)
Phosphatfreies Waschmittel

Title (fr)
Produit de lavage à teneur nulle en phosphates

Publication
EP 0455522 B1 19960814 (FR)

Application
EP 91400773 A 19910321

Priority
FR 9003758 A 19900323

Abstract (en)
[origin: EP0455522A1] Detergent with a phosphates content reduced to less than 5 % by weight, or even zero, especially useful for the washing of fabrics, characterised in that it contains at least one zeolite and at least one oxidised polysaccharide chosen from the group comprising: - the oxidation products of disaccharides possessing a terminal functional group of the aldonic type, - the oxidation products of trisaccharides and of oligosaccharides which possess a terminal functional group of the aldonic type, - the oxidation products of starch hydrolysates, of cellulose and of hemicellulose possessing a terminal functional group of the aldonic type, and - any mixtures of at least any two of the abovementioned oxidation products. t

IPC 1-7
C11D 3/22; **C11D 3/12**

IPC 8 full level
C08L 101/16 (2006.01); **C11D 3/12** (2006.01); **C11D 3/22** (2006.01); **C11D 3/60** (2006.01)

CPC (source: EP)
C11D 3/128 (2013.01); **C11D 3/223** (2013.01)

Citation (examination)
• EP 0395970 A1 19901107 - KALI CHEMIE AG [DE]
• EP 0427349 A2 19910515 - TNO [NL]
• EP 0425369 A1 19910502 - ROQUETTE FRERES [FR]
• Starch/Stärke 37 (1985) n.6, p. 192-200
• Starch/Stärke 41 (1989) n.9, p. 348-354

Cited by
US5501814A; US5541316A; EP0679713A1; AU685588B2; WO9316110A1; WO9308251A1

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0455522 A1 19911106; **EP 0455522 B1 19960814**; AT E141323 T1 19960815; CA 2038640 A1 19910924; DE 69121286 D1 19960919; DE 69121286 T2 19970220; DK 0455522 T3 19961230; ES 2090268 T3 19961016; FI 911409 A0 19910322; FI 911409 A 19910924; FR 2659979 A1 19910927; FR 2659979 B1 19940429; GR 3020943 T3 19961231; JP H05214367 A 19930824; NO 911157 D0 19910322; NO 911157 L 19910924

DOCDB simple family (application)
EP 91400773 A 19910321; AT 91400773 T 19910321; CA 2038640 A 19910319; DE 69121286 T 19910321; DK 91400773 T 19910321; ES 91400773 T 19910321; FI 911409 A 19910322; FR 9003758 A 19900323; GR 960402301 T 19960904; JP 21673091 A 19910325; NO 911157 A 19910322