

Title (en)  
ENZYME-CONTAINING WASHING AGENT

Title (de)  
ENZYMHALTIGES WASCHMITTEL

Title (fr)  
DETERGENT AUX ENZYMES

Publication  
**EP 0652938 B1 19970319 (DE)**

Application  
**EP 93917599 A 19930720**

Priority  
• DE 4224947 A 19920729  
• DE 4236698 A 19921030  
• EP 9301914 W 19930720

Abstract (en)  
[origin: WO9403577A1] In a particulate enzyme-containing washing agent containing synthetic anionic tensides of the sulphate and/or sulphonate type, non-ionic tenside, a water-soluble organic builder and a water-insoluble inorganic builder, the cleaning performance is to be improved with the use of textile-softening cellulase without enzyme activation and without any loss of softening power in the presence of anionic tenside and a proteolytic enzyme. This has been achieved by optimising the constituents, especially the tenside components essentially in that the agent contains 10 to 25 wt % anionic tenside and so much non-ionic tenside that the ratio by weight of anionic tenside to non-ionic tenside is 1.5:1 to 20:1, and protease in such a quantity that it presents a proteolytic activity of 500 PE/g to 2000 PE/g and cellulase in such a quantity that it has a cellulolytic activity of 1 to 21 CEVU/g.

IPC 1-7  
**C11D 3/386**; **C11D 3/12**; **C11D 1/83**

IPC 8 full level  
**C11D 1/83** (2006.01); **C11D 3/12** (2006.01); **C11D 3/386** (2006.01); **C11D 1/14** (2006.01); **C11D 1/22** (2006.01); **C11D 1/28** (2006.01); **C11D 1/29** (2006.01); **C11D 1/66** (2006.01); **C11D 1/72** (2006.01)

CPC (source: EP)  
**C11D 1/83** (2013.01); **C11D 3/128** (2013.01); **C11D 3/38645** (2013.01); **C11D 1/146** (2013.01); **C11D 1/22** (2013.01); **C11D 1/28** (2013.01); **C11D 1/29** (2013.01); **C11D 1/662** (2013.01); **C11D 1/72** (2013.01)

Cited by  
CN115161127A

Designated contracting state (EPC)  
AT BE CH DE ES FR IT LI NL

DOCDB simple family (publication)  
**WO 9403577 A1 19940217**; AT E150483 T1 19970415; DE 59305892 D1 19970424; EP 0652938 A1 19950517; EP 0652938 B1 19970319; ES 2099463 T3 19970516

DOCDB simple family (application)  
**EP 9301914 W 19930720**; AT 93917599 T 19930720; DE 59305892 T 19930720; EP 93917599 A 19930720; ES 93917599 T 19930720