

Title (en)
PRE-WASH COMPOSITIONS CONTAINING ENZYMES

Publication
EP 0177183 B1 19891129 (EN)

Application
EP 85306215 A 19850902

Priority
US 65061784 A 19840912

Abstract (en)
[origin: EP0177183A1] Compositions effective in removing protein, fat and/or starch based stains as well as oil and grease based stains from fabrics comprise organic solvents admixed with surfactants and an enzyme component wherein the enzymes are dissolved in aqueous solution and the aqueous solution is, in turn, dispersed as reversed micelles within the solvent surfactant mixture. Encapsulating the enzymes in reversed micelles protects them from degradation by the solvents and thereby prolongs the effectiveness of the enzymes for extended periods of time. The total water content of the compositions is kept below 5 weight% so that the compositions' oil and grease stain removal ability remains unimpaired.

IPC 1-7
C11D 3/386

IPC 8 full level
C11D 3/386 (2006.01)

CPC (source: EP)
C11D 3/38618 (2013.01); **C11D 3/38663** (2013.01)

Cited by
EP0351162A1; EP0238216A1; EP0462460A3; US5460658A; US4919834A; AU630880B2; US6172031B1; US5223166A; EP0481542A3; US4874537A; US10065332B2; WO9633257A1; WO9000593A1; WO9425560A1

Designated contracting state (EPC)
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EP 85306215 A 19850902; AT 85306215 T 19850902; AU 4710385 A 19850905; CA 489369 A 19850823; DE 3574483 T 19850902; ES 547587 A 19850912; JP 20071785 A 19850912; MX 20660085 A 19850912; TR 3785185 A 19850912