

Title (en)
ENZYME PREPARATION FOR WASHING AND CLEANSING AGENTS.

Title (de)
ENZYMZUBEREITUNG FÜR WASCH- UND REINIGUNGSMITTEL.

Title (fr)
PREPARATION ENZYMATIQUE POUR PRODUITS DE LAVAGE ET DE NETTOYAGE.

Publication
EP 0564476 B1 19950426 (DE)

Application
EP 92900162 A 19911206

Priority
• DE 4041752 A 19901224
• EP 9102340 W 19911206

Abstract (en)
[origin: DE4041752A1] In the production of enzyme granulates with grain sizes from 0.1 to 2 mm, containing 2 to 20 % wt. proteases, lipases, amylases and/or cellulases, 10 to 50 % wt. swellable starch, 5 to 50 % wt. granulating agent, 3 to 12 % wt. water and not more than 10 % wt. water-soluble salt, by extruding an enzyme pre-mixture obtained by mixing a fermentation liquor cleared of insoluble components and concentrated with additives and spheroidizing the extrudate in a rounder, the use of relatively highly concentrated fermentation liquors has previously been necessary. By removing the insoluble components from the fermentation liquor by micro-filtration and mixing with additives which, in relation to the finished granulate, contains 10 to 35 % wt. cereal flour, it is possible, by the use of low-concentration fermentation liquors, to obtain highly active enzyme granulates with a long shelf life which are suitable for inclusion in washing and cleansing agents and are distinguished by uniform solubility properties in aqueous washing and cleansing baths.

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IPC 8 full level
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CPC (source: EP)
C11D 3/222 (2013.01); **C11D 3/382** (2013.01); **C11D 3/38672** (2013.01)

Cited by
US6075001A; EP1754781A1; US8361946B2; US6475546B1; US6380140B1; US8263541B2; US8785362B2; US6380147B1; US7888104B2; DE102007016391A1; US7737103B2; EP2088186A1; US7300782B2; US6462006B1; US6703357B1; US6541233B1; US6417152B1; EP3353274B1

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