Title (en)

Apparatus and process for the production of detergent compositions

Title (de

Apparat und Verfahren zur Herstellung von Reinigungsmitteln

Title (fr)

Procédé et appareil pour la production de compositions détergentes

Publication

EP 1627677 A3 20080702 (DE)

Application

EP 05017983 A 20050818

Priority

DE 102004040020 A 20040818

Abstract (en)

[origin: EP1627677A2] Apparatus for preparing different cleaning agents, comprises a selecting and controlling unit (8), inlet pumps (2a to 2d) connected to storage vessels (4a to 4d) (containing pre-determined base component which is operated by the selecting and controlling unit), a mixer (6) connected to the inlet pumps and distributing device (6a). Apparatus, for preparing different cleaning agents, comprises a selecting and controlling unit (8) (for selecting a particular type of cleaning agent (e.g. a sanitary cleaner or detergent) and for providing controlling signal according to the selected cleaning agent), inlet pumps (2a to 2d) connected to storage vessels (4a to 4d) (containing pre-determined base component which is operated by the selecting and controlling unit), a mixer (6) connected to the inlet pumps and distributing device (6a) (for distributing the mixed cleaning agents in a user container (7), where the controlling device is formed such that it sets the inlet pumps into operation according to the kind of the cleaning agent, which promote the base component of the storage vessels to provide the selected cleaning agent in a predetermined ratio and where the base component further comprises tenside components, a caustic solution component, an acid component and a solvent component, which are co-coordinated to from different kinds of cleaning agents, whose quantity is larger than the quantity of base components. Independent claims are also included for: (1) a method for variable preparation of different cleaning agents of tenside component and at least a further component (acid component, caustic solution component and solvent) comprising providing the components continuously together from a system; and selecting and combining the required components and optionally diluting with for preparing respective cleaning agents (where acid-, caustic solution-, solvent and tap water compatible component is used as the tenside component that preferably does not form gel and does not cause striking odor); (2) a multicomponent-set, for variable preparation of different cleaning agents, comprising tenside component, caustic solution component, acid component and solvent as base component, where a component compatible to acid, caustic solution, solvent and tap water is used as the tenside component that preferably does not form gel and striking odor; and (3) cleaning agents prepared by the method.

IPC 8 full level

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CPC (source: EP)

B01F 33/84 (2022.01); B01F 33/8442 (2022.01); B01F 35/714 (2022.01); B01F 35/7176 (2022.01); C11D 11/0094 (2013.01); F04B 13/00 (2013.01)

Citation (search report)

- [X] EP 0882496 A2 19981209 ECOLAB INC [US]
- [X] DE 7331321 U 19731129
- [X] DE 4031649 A1 19920409 MGV MOEST SPRITZGERAETE PROD [DE]
- [X] US 2003198125 A1 20031023 LINSEN MICHAEL WILLIAM [US], et al
- [X] GB 2392167 A 20040225 RECKITT BENCKISER INC [US]
- [X] GB 2318801 A 19980506 AMWAY CORP [US]
- [X] WO 9518210 A1 19950706 PROCTER & GAMBLE [US]

Cited by

WO2012123342A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

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