

Title (en)

Linear viscoelastic aqueous liquid automatic dishwasher detergent composition.

Title (de)

Lineares, viskoelastisches, wässriges flüssiges Waschmittel für Geschirrspülautomaten.

Title (fr)

Composition détergente aqueuse liquide linéaire visco-élastique pour le lavage de la vaisselle en machine.

Publication

**EP 0541204 A1 19930512 (EN)**

Application

**EP 92304893 A 19920529**

Priority

US 78957491 A 19911108

Abstract (en)

Automatic dishwasher detergent composition is formulated as a linear viscoelastic, pseudoplastic, gel-like aqueous product of exceptionally good physical stability, low bottle residue, low cup leakage, and improved cleaning performance. Linear viscoelasticity and pseudoplastic behavior is attributed by incorporation of cross-linked high molecular weight polyacrylic acid type thickener. Potassium to sodium weight ratios of at least 1/1 minimize amount of undissolved solid particles to further contribute to stability and pourability. Control of incorporated air bubbles functions to provide the product with a bulk density of 1.28 to 1.40 g/cc which roughly corresponds to the density of the liquid phase. Stearic acid or other fatty acid or salt further improve physical stability. <IMAGE>

IPC 1-7

**C08L 33/02; C11D 3/12; C11D 3/37**

IPC 8 full level

**C11D 3/12** (2006.01); **C11D 3/37** (2006.01); **C11D 17/00** (2006.01)

CPC (source: EP)

**C11D 3/1213** (2013.01); **C11D 3/3765** (2013.01); **C11D 17/003** (2013.01)

Citation (search report)

- [Y] EP 0323209 A2 19890705 - UNILEVER PLC [GB], et al
- [A] EP 0295093 A1 19881214 - UNILEVER PLC [GB], et al
- [A] DE 2134695 A1 19730125 - HENKEL & CIE GMBH
- [A] EP 0208836 A2 19870121 - DEGUSSA [DE]
- [Y] DATABASE WPIL Week 8538, Derwent Publications Ltd., London, GB; AN 85-233850 & JP-A-60 152 551 (NITTO ELECTRIC IND KK) 10 August 1985
- [A] DATABASE WPIL Week 8425, Derwent Publications Ltd., London, GB; AN 84-154809 & JP-A-59 080 459 (ARAKAWA KAGAKU KOGYO) 9 May 1984

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**EP 92304893 A 19920529**; AU 1625692 A 19920513; CA 2069845 A 19920528; FI 922510 A 19920529; NO 922066 A 19920525; NZ 24284592 A 19920520; PT 10054492 A 19920529