

Title (en)
LOW-FOAM, COLD-STABLE AQUEOUS DETERGENTS CONTAINING NONIONIC, ANIONIC AND CATIONIC SURFACE ACTIVE AGENTS AND THEIR UTILIZATION

Publication
EP 0391392 A3 19910116 (DE)

Application
EP 90106442 A 19900404

Priority
DE 3911098 A 19890406

Abstract (en)
[origin: EP0391392A2] The surfactant compositions are obtained by mixing 1 part by weight of at least one non-ionic surfactant and 0.3 to 9 parts by weight of a specific mixture of water and at least one anionic surfactant and at least one cationic surfactant. They are concentrated, and generally clear, liquids which are distinguished, in particular by favourable foaming and wetting characteristics, low surface tension and low pour point and, by reason of these special properties, can be used for many purposes.

IPC 1-7
C11D 1/00

IPC 8 full level
C09K 23/00 (2022.01); **C09K 23/18** (2022.01); **C11D 1/86** (2006.01); **C11D 1/12** (2006.01); **C11D 1/14** (2006.01); **C11D 1/20** (2006.01); **C11D 1/22** (2006.01); **C11D 1/29** (2006.01); **C11D 1/44** (2006.01); **C11D 1/52** (2006.01); **C11D 1/62** (2006.01); **C11D 1/72** (2006.01); **C11D 1/722** (2006.01); **C11D 1/74** (2006.01)

CPC (source: EP US)
C11D 1/86 (2013.01 - EP US); **C11D 3/0026** (2013.01 - EP US); **C11D 1/123** (2013.01 - EP US); **C11D 1/14** (2013.01 - EP US); **C11D 1/20** (2013.01 - EP US); **C11D 1/22** (2013.01 - EP US); **C11D 1/29** (2013.01 - EP US); **C11D 1/44** (2013.01 - EP US); **C11D 1/523** (2013.01 - EP US); **C11D 1/62** (2013.01 - EP US); **C11D 1/72** (2013.01 - EP US); **C11D 1/722** (2013.01 - EP US); **C11D 1/74** (2013.01 - EP US)

Citation (search report)
• [A] EP 0151678 A1 19850821 - PROCTER & GAMBLE [US]
• [AD] GB 2195653 A 19880413 - COLGATE PALMOLIVE CO
• [AD] US 3684736 A 19720815 - GROVES WILLIAM L JR, et al
• [A] US 4321165 A 19820323 - SMITH RORY J M, et al

Cited by
AT103U1; EP2455156A1; EP2123350A1; US8519071B2; US8142681B2; WO0137661A1; WO0042140A1; FR3095558A1; US6617303B1; US8142714B2

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

DOCDB simple family (publication)
EP 0391392 A2 19901010; **EP 0391392 A3 19910116**; **EP 0391392 B1 19950726**; AT E125564 T1 19950815; BR 9001527 A 19910423; CA 2013920 A1 19901006; DE 3911098 A1 19901011; DE 59009425 D1 19950831; ES 2076984 T3 19951116; JP H02284639 A 19901122; US 5298193 A 19940329

DOCDB simple family (application)
EP 90106442 A 19900404; AT 90106442 T 19900404; BR 9001527 A 19900403; CA 2013920 A 19900405; DE 3911098 A 19890406; DE 59009425 T 19900404; ES 90106442 T 19900404; JP 8926190 A 19900405; US 89043192 A 19920528