

Title (en)

Non-aqueous, nonionic heavy duty laundry detergent.

Title (de)

Nichtwässrige, nichtionogene Hochleistungswaschmittel.

Title (fr)

Composition détergente non-ionique non-aqueuse pour lavage intense.

Publication

EP 0413616 A1 19910220 (EN)

Application

EP 90400897 A 19900402

Priority

US 39585689 A 19890818

Abstract (en)

Stable, Nonaqueous built detergent compositions are provided. The compositions comprise a liquid phase of non-ionic surfactant and a solid, dispersed phase of insolubles at least one of which is a builder such as sodium tripolyphosphate and trisodium citrate. The compositions may also contain bleach, and the conventional adjuvants. Stability and improved dispersibility in water is provided by a carboxy-containing polymer.

IPC 1-7

C11D 1/66; **C11D 3/37**; **C11D 17/00**; **C11D 17/08**

IPC 8 full level

C11D 10/02 (2006.01); **C11D 3/06** (2006.01); **C11D 3/20** (2006.01); **C11D 3/36** (2006.01); **C11D 3/37** (2006.01); **C11D 3/386** (2006.01); **C11D 3/39** (2006.01); **C11D 17/00** (2006.01); **C11D 17/08** (2006.01)

CPC (source: EP)

C11D 3/06 (2013.01); **C11D 3/2086** (2013.01); **C11D 3/3765** (2013.01); **C11D 3/38618** (2013.01); **C11D 3/3942** (2013.01); **C11D 3/3947** (2013.01); **C11D 17/0004** (2013.01)

Citation (search report)

- [X] US 4326979 A 19820427 - BUS JAN, et al
- [A] DE 3511515 A1 19851017 - COLGATE PALMOLIVE CO [US]
- [A] DE 3511517 A1 19851024 - COLGATE PALMOLIVE CO [US]
- [AD] US 4661280 A 19870428 - OUHADI TRAZOLLAH [BE], et al

Cited by

US7169192B2; EP2083067A1; US7179781B2; US7572759B2; EP0510580A1; AU678378B2; EP0510762A3; EP0786517A1; CN110869482A; US6699831B2; WO03060054A3; WO2004099356A1; WO9403580A1; WO2016196020A1; WO9618716A1; WO9401524A1; WO2019027633A1; US7303587B2; US7399316B2; US7749282B2

Designated contracting state (EPC)

BE DE FR GB IT LU SE

DOCDB simple family (publication)

EP 0413616 A1 19910220; **EP 0413616 B1 19950329**; AU 4265289 A 19900426; AU 624634 B2 19920618; CA 2015304 A1 19910218; DE 69018158 D1 19950504; DK 189190 A 19910219; DK 189190 D0 19900808; JP H0386800 A 19910411; ZA 906552 B 19940817

DOCDB simple family (application)

EP 90400897 A 19900402; AU 4265289 A 19891006; CA 2015304 A 19900424; DE 69018158 T 19900402; DK 189190 A 19900808; JP 5628690 A 19900307; ZA 906552 A 19900817