

Title (en)

DETERGENT OR CLEANING AGENT HAVING AN IMPROVED ANTIMICROBIAL EFFECT

Title (de)

WASCH- ODER REINIGUNGSMITTEL MIT VERBESSERTER ANTIMIKROBIELLER WIRKUNG

Title (fr)

PRODUIT DÉTERGENT OU DE NETTOYAGE À ACTION ANTIMICROBIENNE AMÉLIORÉE

Publication

**EP 3420063 B1 20210915 (DE)**

Application

**EP 17705906 A 20170220**

Priority

- DE 102016202846 A 20160224
- EP 2017053808 W 20170220

Abstract (en)

[origin: WO2017144420A1] The invention relates to a detergent or cleaning agent that has an improved antimicrobial effect and comprises at least one tetracarboxylic acid or the salts thereof in combination with at least one biocidal quaternary ammonium compound.

IPC 8 full level

**C11D 3/20** (2006.01); **C11D 1/62** (2006.01); **C11D 3/48** (2006.01)

CPC (source: EP US)

**C11D 1/62** (2013.01 - EP US); **C11D 3/2082** (2013.01 - EP US); **C11D 3/48** (2013.01 - EP US)

Citation (opposition)

Opponent : GRUPO AC MARCA, S.L.

- US 2012225948 A1 20120906 - HEISIG CHRISTOPHER C [US], et al
- US 2011117032 A1 20110519 - GILDING DENNIS KEITH [GB]
- US 2015282480 A1 20151008 - KLOEPEL ANDREW [US], et al
- US 2010227930 A1 20100909 - LUSIGNAN NORMAND [CA]
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Opponent : Reckitt Benckiser LLC

- WO 2013098547 A1 20130704 - BYOTROL PLC [GB]
- WO 2012121964 A1 20120913 - AMERICAN STERILIZER CO [US], et al
- JP H11302104 A 19991102 - KAO CORP
- WO 2009112843 A2 20090917 - AMITY LTD [GB], et al
- GB 964448 A 19640722 - UNITED DAIRIES LTD
- ANONYMOUS: "Dissolvine ®", NOURYON - TECHNICAL BROCHURE, 1 January 2018 (2018-01-01), XP055935623, Retrieved from the Internet <URL:https://www.nouryon.com/globalassets/nouryon/1.-products/chelates/brochure-chelates-dissolvine-gl-global-en.pdf> [retrieved on 20220627]
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Opponent : The Procter & Gamble Company

- WO 2012121964 A1 20120913 - AMERICAN STERILIZER CO [US], et al
- US 7939488 B2 20110510 - SCHEUING DAVID R [US], et al
- US 2010227930 A1 20100909 - LUSIGNAN NORMAND [CA]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**DE 102016202846 A1 20170824**; EP 3420063 A1 20190102; EP 3420063 B1 20210915; US 10487291 B2 20191126; US 2019055493 A1 20190221; WO 2017144420 A1 20170831

DOCDB simple family (application)

**DE 102016202846 A 20160224**; EP 17705906 A 20170220; EP 2017053808 W 20170220; US 201816111418 A 20180824