

Title (en)  
DETERGENT COMPOSITION

Title (de)  
REINIGUNGSMITTELZUSAMMENSETZUNG

Title (fr)  
COMPOSITION DE DÉTERGENT

Publication  
**EP 3884025 B1 20220608 (EN)**

Application  
**EP 19798034 A 20191030**

Priority  

- EP 18207282 A 20181120
- EP 2019079656 W 20191030

Abstract (en)  
[origin: WO2020104157A1] The invention provides a detergent composition comprising: (i) from 1 to 60 wt.% of a surfactant; and, (ii) from 0.0005 to 5 wt.% of an esterase enzyme of enzyme class EC 3.1.1.1, having at least 60% sequence identity to any one of SEQ ID NO: 1 to 4; to a method using the enzyme and to the use of the enzyme to improve cleaning of sebum stains on fabric.

IPC 8 full level  
**C11D 3/386** (2006.01); **C11D 11/00** (2006.01)

CPC (source: EP)  
**C11D 3/38636** (2013.01); **C11D 2111/12** (2024.01)

Citation (opposition)

Opponent : The Procter & Gamble Company

- WO 2014130508 A1 20140828 - PROCTER & GAMBLE [US]
- DATABASE PROTEIN ANONYMOUS : "carboxylesterase (est-2) [Archaeoglobus fulgidus DSM 4304]", XP093149948, retrieved from NCBI
- DATABASE NUCLEOTIDE ANONYMOUS : "Thermogutta terrifontis strain R1 esterase gene, complete cds", XP093149942, retrieved from NCBI
- SAYER CHRISTOPHER, ISUPOV MICHAEL N., BONCH-OSMOLOVSKAYA ELIZAVETA, LITTLECHILD JENNIFER A.: "Structural studies of a thermophilic esterase from a new Planctomycetes species, Thermogutta terrifontis", THE FEBS JOURNAL, WILEY-BLACKWELL PUBLISHING LTD., GB, vol. 282, no. 15, 1 August 2015 (2015-08-01), GB , pages 2846 - 2857, XP093149953, ISSN: 1742-464X, DOI: 10.1111/febs.13326
- DATABASE PROTEIN ANONYMOUS : "esterase [Thermogutta terrifontis]", XP093149944, retrieved from NCBI
- SAYER CHRISTOPHER, FINNIGAN WILLIAM, ISUPOV MICHAEL N., LEVISSON MARK, KENGEN SERVÉ W. M., VAN DER OOST JOHN, HARMER NICHOLAS J., : "Structural and biochemical characterisation of Archaeoglobus fulgidus esterase reveals a bound CoA molecule in the vicinity of the active site", SCIENTIFIC REPORTS, NATURE PUBLISHING GROUP, US, vol. 6, no. 1, US , XP093149960, ISSN: 2045-2322, DOI: 10.1038/srep25542
- DATABASE PROTEIN ANONYMOUS : "Carboxylesterase (Est-2)", XP093149946, retrieved from NCBI

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)

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EP 3884025 A1 20210929; EP 3884025 B1 20220608; ZA 202102551 B 20230125

DOCDB simple family (application)

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ZA 202102551 A 20210416