

Title (en)

CLEAR-RINSING AGENTS FOR MACHINE DISHWASHING

Title (de)

KLARSPÜLER FÜR DAS MASCHINELLE GESCHIRRSPÜLEN

Title (fr)

AGENTS MOUILLANTS POUR LE LAVAGE EN MACHINE DE LA VAISSELLE

Publication

**EP 1129172 B1 20050511 (DE)**

Application

**EP 99955925 A 19991030**

Priority

- DE 19851453 A 19981109
- EP 9908289 W 19991030

Abstract (en)

[origin: DE19851453A1] The invention relates to clear-rinsing agents for machine dishwashing containing alkoxyated carboxylic acid esters, especially of the type which are produced by reacting carboxylic acid esters and alkylene oxides in the presence of calcined hydrocalcites. The invention also relates to the use of the alkoxyated carboxylic acid esters as a surfactant for producing clear-rinsing agents of this type.

IPC 1-7

**C11D 17/00**; **C11D 1/74**; **C11D 1/825**

IPC 8 full level

**C11D 1/74** (2006.01); **C11D 1/825** (2006.01); **C11D 1/835** (2006.01); **C11D 17/00** (2006.01); **C11D 1/52** (2006.01); **C11D 1/66** (2006.01); **C11D 1/722** (2006.01)

CPC (source: EP US)

**C11D 1/74** (2013.01 - EP US); **C11D 1/825** (2013.01 - EP US); **C11D 1/835** (2013.01 - EP US); **C11D 1/525** (2013.01 - EP US); **C11D 1/662** (2013.01 - EP US); **C11D 1/722** (2013.01 - EP US)

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

**DE 19851453 A1 20000511**; DE 59912051 D1 20050616; EP 1129172 A1 20010905; EP 1129172 B1 20050511; EP 1129172 B8 20050706; ES 2243083 T3 20051116; US 7871971 B1 20110118; WO 0027987 A1 20000518

DOCDB simple family (application)

**DE 19851453 A 19981109**; DE 59912051 T 19991030; EP 9908289 W 19991030; EP 99955925 A 19991030; ES 99955925 T 19991030; US 83143299 A 19991030