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- with international search report (Art. 21(3))
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8 April 2010



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(54) **Title:** AMPHOTERIC POLYMER FOR TREATING HARD SURFACES

(57) **Abstract:** The present invention is directed to the use of hydrophilic terpolymers in hard surface cleaners which provide easier cleaning for surface soils such as hard water stains, soap scum, limescale, mud, food, toilet stains, oil, grease, particulates and the like as well as anti-fog effects on hard surfaces such as glass, mirrors, ceramic and plastic by causing water droplets to coalesce into a film.

## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2009/057663

## A. CLASSIFICATION OF SUBJECT MATTER

INV. C11D3/37 C08F246/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C11D C08F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/083223 A1 (AUBAY ERIC [FR] ET AL) 1 May 2003 (2003-05-01) paragraphs [0001], [0065], [0021], [0044], [0136]; example C5 -----	1-4, 8, 9
Y	EP 0 522 756 A (CALGON CORP [US]) 13 January 1993 (1993-01-13) cited in the application page 1, lines 48-51 page 8, lines 25-37 page 5, lines 30-33 page 8, line 30 page 10, lines 34, 35, 51 example 1 ----- -/--	1-4, 8, 9



Further documents are listed in the continuation of Box C.



See patent family annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

29 October 2009

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22/02/2010

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2009/057663

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2006/061334 A (CIBA SC HOLDING AG [CH]; SONG ZHIQIANG [US]; JAYNES BINGHAM SCOTT [US]) 15 June 2006 (2006-06-15) page 1, lines 3-7 page 4, lines 5-17 -----	1-4
A	WO 2007/017098 A (RHONE POULENC CHIMIE [FR]; AUBAY ERIC [FR]) 15 February 2007 (2007-02-15) cited in the application page 8, lines 23-27 -----	1-4,8,9

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2009/057663

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4, 8, 9

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 8,9

A hard surface cleaning composition comprising a terpolymer,  
a method for cleaning a hard surface and a hard surface  
cleaner comprising the hard surface cleaning composition.  
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2. claims: 5-7

A fog preventive film, wherein the film composition  
comprises a terpolymer  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2009/057663

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
US 2003083223	A1	01-05-2003	NONE	
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WO 2007017098	A	15-02-2007	EP 1907526 A1	09-04-2008
			JP 2009503161 T	29-01-2009
			US 2009301519 A1	10-12-2009
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