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BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,  
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,  
HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR,  
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,  
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,  
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC,  
SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,  
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TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,  
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Published:

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(54) Title: METHOD OF PRODUCING A LOW ODOR GLYCERIN DERIVATIVE-MODIFIED SILICONE OR A COMPOSITION COMPRISING THE SAME

(57) Abstract: A method of producing a glycerin derivative-modified silicone or a composition comprising the same, including a process that treats the glycerin derivative-modified silicone or the composition comprising the same with one or more type of acidic inorganic salt, which is solid at 25° C and water soluble, and which is such that a pH at 25° C of an aqueous solution prepared by dissolving 50g of the acidic inorganic salt in 1 L of ion exchanged water is 4 or lower; and an external use preparation, cosmetic composition, or raw materials thereof that contain the low odor glycerin derivative-modified silicone obtained by the production method.

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/JP2012/084279

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. C08G77/16 A61K8/892 C08G77/34 C08L83/06  
 ADD.

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)  
 C08G A61K C08L

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 practicable, search terms used)  
 EPO-Internal, WPI Data, COMPENDEX, INSPEC, IBM-TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/158363 A1 (NAKANISHI TETSUO [JP]) 21 August 2003 (2003-08-21) cited in the application	13
Y	paragraph [0059] - paragraph [0060] paragraph [0081] - paragraph [0088]; claims; example 5	9-12
X	----- WO 2011/068251 A1 (DOW CORNING TORAY CO LTD [JP]; SOUDA TATSUO [JP]; TAMURA SEIKI [JP]) 9 June 2011 (2011-06-09) paragraphs [0017], [0107] - [0115]; claims	1-8,14, 15
Y	----- WO 2011/049246 A1 (DOW CORNING TORAY CO LTD) 28 April 2011 (2011-04-28) paragraphs [0073] - [0075]; claims -/--	9-12

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&amp;" document member of the same patent family</p>
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Date of the actual completion of the international search  18 July 2013	Date of mailing of the international search report  11/10/2013
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Hein, Friedrich
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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/JP2012/084279

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>&amp; EP 2 492 300 A1 (DOW CORNING TORAY CO LTD [JP]) 29 August 2012 (2012-08-29) paragraphs [0073] - [0075]; claims -----</p> <p>US 2004/253197 A1 (SAKUTA KOJI [JP]) 16 December 2004 (2004-12-16) abstract paragraphs [0016], [0079]; claims -----</p>	1-15

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP2012/084279

## 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.:

1-15

### 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: 1-15

Method of producing a glycerin derivative-modified silicone;  
external use preparation raw material; external use  
preparation

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2. claims: 16, 17

Method of measuring a carbonyl value; glycerin  
derivative-modified silicone

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2012/084279

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
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