

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>18A053PCWO</b>	<b>FOR FURTHER ACTION</b>	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. <b>PCT/CN2018/118894</b>	International filing date ( <i>day/month/year</i> ) <b>03 December 2018</b>	(Earliest) Priority Date ( <i>day/month/year</i> )
Applicant <b>DOW GLOBAL TECHNOLOGIES LLC et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

the international application in the language in which it was filed.

a translation of the international application into \_\_\_\_\_ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

b.  This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.  **Certain claims were found unsearchable** (see Box No. II).

3.  **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2018/118894

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
C09D 163/00(2006.01)i		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
C09D		
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)		
CNABS;CNTXT;DWPI;SIPOABS:DOW GLOBAL TECHNOLOGIES LLC, DOWC, dispersant?, +sulfon+, +phosphoethyl+, +phosphorous+, +phosphpropyl+, epoxy, coat+, paint, nonionic monomer, diacetone, DAAM		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2018081943 A1 (DOW GLOBAL TECHNOLOGIES LLC. ET AL.) 11 May 2018 (2018-05-11) page 2 line 13 to page 6 line 10, page 8 lines 1 to 3	1-15
Y	WO 2016095583 A1 (DOW GLOBAL TECHNOLOGIES LLC. ET AL.) 23 June 2016 (2016-06-23) page 2 lines 15 to 27, page 4 lines 21 to 30	1-15
A	CN 103571256 A (ROHM & HAAS CO. ET AL.) 12 February 2014 (2014-02-12) claims 1-6	1-15
A	CN 101010366 A (NOVEON INC.) 01 August 2007 (2007-08-01) claims 1-11	1-15
A	US 8816016 B2 (ROHM & HAAS CO.) 26 August 2014 (2014-08-26) claims 1-9	1-15
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 application or patent 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 "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
02 August 2019		19 August 2019
Name and mailing address of the ISA/CN		Authorized officer
National Intellectual Property Administration, PRC 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088 China		GE, Chen
Facsimile No. (86-10)62019451		Telephone No. 86-(10)-53962768

**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/CN2018/118894**

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
WO	2018081943	A1	11 May 2018	AU	2016428651	A1	06 June 2019
				CA	3041926	A1	11 May 2018
				CN	109983090	A	05 July 2019
WO	2016095583	A1	23 June 2016	KR	20170095264	A	22 August 2017
				US	2017321059	A1	09 November 2017
				EP	3234014	A1	25 October 2017
				EP	3234027	A4	20 June 2018
				BR	112017012902	A2	30 January 2018
				AU	2015366910	B2	02 May 2019
				WO	2016095197	A1	23 June 2016
				MX	2017007627	A	18 September 2017
				EP	3234014	A4	17 October 2018
				CN	107429084	A	01 December 2017
				SG	11201704626T	A	28 July 2017
				EP	3234027	B1	19 June 2019
				US	2017275408	A1	28 September 2017
				US	9951169	B2	24 April 2018
				CN	107087413	A	22 August 2017
				BR	112017012880	A2	30 January 2018
AU	2015366910	A1	20 July 2017				
EP	3234027	A1	25 October 2017				
CN	103571256	A	12 February 2014	CA	2818445	A1	31 January 2014
				MX	336277	B	13 January 2016
				CN	103571256	B	11 July 2017
				EP	2692753	B1	07 January 2015
				US	2014039117	A1	06 February 2014
				MX	2013008616	A	30 January 2014
				US	8865827	B2	21 October 2014
				EP	2692753	A1	05 February 2014
				BR	102013018885	A2	10 November 2015
CN	101010366	A	01 August 2007	EP	1789486	A1	30 May 2007
				KR	101215465	B1	27 December 2012
				WO	2006026379	A1	09 March 2006
				US	7459496	B2	02 December 2008
				AT	383394	T	15 January 2008
				AU	2005280153	A1	09 March 2006
				DE	602005004303	D1	21 February 2008
				EP	1789486	B1	09 January 2008
				KR	20070051908	A	18 May 2007
				AU	2005280153	B2	31 March 2011
				ES	2300056	T3	01 June 2008
				DE	602005004303	T2	02 January 2009
				US	2006047062	A1	02 March 2006
				CN	101010366	B	12 January 2011
US	8816016	B2	26 August 2014	US	2010062167	A1	11 March 2010