

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 December 2007 (21.12.2007)

PCT

(10) International Publication Number
WO 2007/146491 A3

(51) International Patent Classification:
C11D 17/06 (2006.01)

(21) International Application Number:

PCT/US2007/066984

(22) International Filing Date: 19 April 2007 (19.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/793,352 20 April 2006 (20.04.2006) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
5 June 2008

(54) Title: FLOWABLE PARTICULATES

(57) Abstract: The present invention relates to particles, compositions comprising said particles, and processes for making and using the aforementioned particles and compositions. When employed in compositions or alone such particles provide controlled dosing and improved performance without the negatives that are associated with fluid products.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/066984

A. CLASSIFICATION OF SUBJECT MATTER
INV. C11D17/06

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

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.
P, X	WO 2006/048142 A (HENKEL KGAA [DE]; RAEHSE WILFRIED [DE]) 11 May 2006 (2006-05-11) examples A-C	1-5, 11-19, 22, 34, 35
X	WO 2005/080542 A (PROCTER & GAMBLE [US]; MORT PAUL R III [US]; NORMAN WENDELL IVAN [US];) 1 September 2005 (2005-09-01) page 6, paragraph 2; claims 1,10,12; examples 3-5 page 10, paragraph 8	1-5, 11-22, 28-32
X	EP 1 612 185 A (SOLVAY [BE]) 4 January 2006 (2006-01-04) paragraphs [0001], [0005] - [0016], [0020], [0025], [0026] ----- -/--	1-5, 11-22, 31-35

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.
- *8* document member of the same patent family

Date of the actual completion of the international search

4 December 2007

Date of mailing of the international search report

16/04/2008

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/066984

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 666 740 A (WIXON HAROLD E [US]) 19 May 1987 (1987-05-19) column 1, lines 10-,12; examples 1,5 -----	1-5, 11-22, 28-35
X	US 4 339 335 A (WIXON HAROLD E) 13 July 1982 (1982-07-13) page 1, lines 7-10; claim 7; examples 1,5 column 6, lines 54-66 -----	1-5, 11-22, 28-35
X	WO 97/32951 A (PROCTER & GAMBLE [US]; KAZUTA TAKASHI [JP]; EBIHARA KUKUJI [JP]) 12 September 1997 (1997-09-12) page 34, line 36 - page 35, line 11; claims 1,7,8; example I page 25, lines 25-33 -----	1-5, 11-22, 28-35

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/066984

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.:

see annex

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: 1-5,11-22,28-35

A process for producing particles comprising:

- a) layering a mass of seeds, said seeds having:
 - i) a medium particle diameter of 150 to 1700 microns
 - iii) seed bulk density of 50 to 2000 grams/liter
 - b) layering the seeds with:
 - iv) a layering binder having a viscosity from 0.5 to 4000 cp.
 - v) a layering powder having a median particle size from 1 to 100 microns
-

2. claims: 6-10

A process for producing particles comprising:

- a) layering a mass of seeds with a binder comprising a
 - i) a liquid and
 - ii) a layering powder
 - iii) the process being conducted:
 - iii') at a Layering Stokes Number of 0 to 10
 - iii'') a Coalescence Stoke Numer of at least 0.5
 - c) treating said particles to remove any material that would result in said particles having a Relative Jamming Onset of greater than 14
-

3. claims: 23-27

A process for producing particles comprising:

- a) contacting a particle and a binder comprising a liquid in:
 - b) a counter-rotating dual-axis paddle mixer, wherein
 - c) said binder is introduced into said mixer through an ingress located at the bottom of said dual-axis paddle mixer
-

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/066984

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