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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, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
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SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
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TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
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(54) **Title:** NON-RESPIRABLE POWDERED DIATOMACEOUS EARTH PRODUCTS

(57) **Abstract:** Disclosed is a non-respirable/substantially non-respirable product and method of manufacturing such product. The product may comprise diatomite having a median particle size distribution between about 10 microns and about 60 microns. The product is substantially non-respirable and may be enclosed inside a package wherein the product and inside the package have a combined aerobic bacterial count between about zero and about 114 (CFU/1.0g). The product may have a dust number less than about 0.2.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US15/65329

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B01J 20/14; C04B 14/08; A01P 1/00 (2016.01)

CPC - B01J 20/14, 20/2803, 20/3078

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)

IPC(8) Classification(s): B01J 20/14; C04B 14/08; A01P 1/00 (2016.01)

CPC Classification(s): B01J 20/14, 20/2803, 20/3078

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)

PatSeer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC Data); Google Scholar; Google; EBSCO
diatomaceous earth, diatomite, calcining, flux calcined, antimicrobial agent, chlorine dioxide, sodium hypochlorite, packaging

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2009/067718 A1 (WORLD MINERALS, INC.) 28 May 2009; paragraphs [015], [031]-[033], [035], [050], [054]	1-3, 4/1, 4/3, 5/1, 5/3, 6-16
Y	WO 2000/051913 A1 (GENERAL ELECTRIC COMPANY) 08 September 2000; page 4, 3rd paragraph, 4th paragraph	1-3, 4/1, 4/3, 5/1, 5/3, 6
Y	US 7546722 B2 (TSURUTA, O) 16 July 2009; claim 1	5/1, 5/3
Y	US 4,919,842 A (DICKSON, GA et al.) 24 April 1990; column 2, lines 6-9; column 4, line 63; column 5, lines 26-30	2, 6
Y	WO 2012/142407 A1 (TOPMD, INC.) 18 October 2012; paragraphs [0003]-[0004], [0037]	2, 6, 12
Y	US 2,613,862 A (VAUGHN, SP) 14 October 1952; column 2, lines 33-34	7-13, 15-16
Y	US 8,518,541 B2 (LOEKER, F et al.) 27 August 2013; table 1	7-16
Y	WO 1997/032077 A1 (TETRA LAVAL HOLDING & FINANCE S.A.) 04 September 1997; page 2, lines 5-6; page 9, lines 24-27; page 10, lines 1-3	7-16
Y	US 2009/0110888 A1 (WUEST, SE et al.) 30 April 2009; paragraphs [0005], [0040], [0047]; claim 1	7, 13-14
Y	CN 1,214,204 A (LIQI, L) 21 April 1999; abstract	15-16

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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

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"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

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