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UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No.	15149CC
	First Named Inventor	David Arthur STRUGIS
	Title	DEODORANT COMPOSITIONS
	Priority Mail Express® Label No.	

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	ADDRESS TO: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450
1. ☐ Fee Transmittal Form (PTO/SB/17 or equivalent) 2. ☐ Applicant asserts small entity status. See 37 CFR 1.27 3. ☐ Applicant certifies micro entity status. See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent. 4. ☒ Specification [Total Pages <u>23</u>] Both the claims and abstract must start on a new page. (See MPEP § 608.01(a) for information on the preferred arrangement) 5. ☐ Drawing(s) (35 U.S.C. 113) [Total Sheets _____] 6. Inventor's Oath or Declaration [Total Pages <u>2</u>] (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e)) a. ☐ Newly executed (original or copy) b. ☒ A copy from a prior application (37 CFR 1.63(d)) 7. ☒ Application Data Sheet * See note below. See 37 CFR 1.76 (PTO/AIA/14 or equivalent) 8. CD-ROM or CD-R in duplicate, large table, or Computer Program (Appendix) ☐ Landscape Table on CD 9. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. – c. are required) a. ☐ Computer Readable Form (CRF) b. ☐ Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies	ACCOMPANYING APPLICATION PAPERS 10. ☐ Assignment Papers (cover sheet & document(s)) Name of Assignee _____ 11. ☐ 37 CFR 3.73(c) Statement ☒ Power of Attorney (when there is an assignee) 12. ☐ English Translation Document (if applicable) 13. ☐ Information Disclosure Statement (PTO/SB/08 or PTO-1449) ☐ Copies of citations attached 14. ☐ Preliminary Amendment 15. ☐ Return Receipt Postcard (MPEP § 503) (Should be specifically itemized) 16. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed) 17. ☐ Nonpublication Request Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent. 18. ☒ Other: Transmittal of Power of Attorney _____ _____ _____ _____

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

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This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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DEODORANT COMPOSITIONS

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. Patent Application No. 16/716,542, filed on
5 December 17, 2019, which is a continuation of U.S. Patent Application No. 16/021,965, filed
June 28, 2018, which claims the benefit of U.S. Provisional Application No. 62/647,104, filed
March 23, 2018, and of U.S. Provisional Application No. 62/527,180, filed June 30, 2017.

FIELD OF THE INVENTION

10 The present disclosure relates to deodorant compositions and methods relating thereto.

BACKGROUND OF THE INVENTION

Many consumers are seeking more natural, aluminum-free deodorant offerings, often mostly
free of silicones. Consumers also want a good glide, non-sticky, and non-greasy application. This is
15 a challenge, because a mostly silicone-free formula will often use natural oils or natural oil-based
triglycerides. But often natural oils, such as coconut oil, bring a large portion of wax with them, often
making the resulting deodorant sticks too hard to meet a more preferable product application for both
shaven and unshaven underarms. They are also often undesirably greasy due to the non-volatile nature.

Thus there remains a challenge to formulate an aluminum-free, mostly silicone-free deodorant
20 stick that is not too hard.

SUMMARY OF THE INVENTION

A deodorant stick comprising: at least about 25% of a liquid triglyceride; at least one
antimicrobial; a primary structurant with a melting point at least about 50°C; and less than 8% of
25 secondary structurants having a melting point of at least about 60°C; said stick being free of an
aluminum salt; and said stick having a hardness from about 80 mm*10 to about 140 mm*10, as
measured by penetration with ASTM D-1321 needle.

DETAILED DESCRIPTION OF THE INVENTION

30 While the specification concludes with claims that particularly point out and distinctly claim
the invention, it is believed the present invention will be better understood from the following
description.

The present invention can comprise, consist of, or consist essentially of the essential elements and limitations of the invention described herein, as well any of the additional or optional ingredients, components, or limitations described herein.

5 All percentages, parts and ratios are based upon the total weight of the compositions of the present invention, unless otherwise specified. All such weights as they pertain to listed ingredients are based on the active level and, therefore do not include carriers or by-products that may be included in commercially available materials.

The components and/or steps, including those which may optionally be added, of the various embodiments of the present invention, are described in detail below.

10 All documents cited are, in relevant part, incorporated herein by reference; the citation of any document is not to be construed as an admission that it is prior art with respect to the present invention.

All ratios are weight ratios unless specifically stated otherwise.

All temperatures are in degrees Celsius, unless specifically stated otherwise.

15 Except as otherwise noted, all amounts including quantities, percentages, portions, and proportions, are understood to be modified by the word "about", and amounts are not intended to indicate significant digits.

Except as otherwise noted, the articles "a", "an", and "the" mean "one or more".

Herein, "comprising" means that other steps and other ingredients which do not affect the end result can be added. This term encompasses the terms "consisting of" and "consisting essentially of".
20 The compositions and methods/processes of the present invention can comprise, consist of, and consist essentially of the essential elements and limitations of the invention described herein, as well as any of the additional or optional ingredients, components, steps, or limitations described herein.

Herein, "effective" means an amount of a subject active high enough to provide a significant positive modification of the condition to be treated. An effective amount of the subject active will
25 vary with the particular condition being treated, the severity of the condition, the duration of the treatment, the nature of concurrent treatment, and like factors.

The term "anhydrous" as used herein means substantially free of added or free water. From a formulation standpoint, this means that the anhydrous deodorant stick compositions of the present invention contain less than about 1%, and more specifically zero percent, by weight of free or added
30 water, other than the water of hydration typically associated with the particulate deodorant active prior to formulation.

The term "ambient conditions" as used herein refers to surrounding conditions under about one atmosphere of pressure, at about 50% relative humidity, and at about 25 °C, unless otherwise specified. All values, amounts, and measurements described herein are obtained under ambient conditions unless otherwise specified.

5 The term "majority" refers to greater than about 51% of the stated component or parameter.

"Substantially free of" refers to about 2% or less, about 1% or less, or about 0.1% or less of a stated ingredient. "Free of" refers to no detectable amount of the stated ingredient or thing.

10 The term "volatile" as used herein refers to those materials that have a measurable vapor pressure at 25 °C. Such vapor pressures typically range from about 0.01 millimeters of Mercury (mm Hg) to about 6 mmHg, more typically from about 0.02 mmHg to about 1.5 mmHg; and have an average boiling point at one (1) atmosphere of pressure of less than about 250 °C, more typically less than about 235 °C. Conversely, the term "non-volatile" refers to those materials that are not "volatile" as defined herein.

15 As consumers seek more natural ingredients in their deodorants, one approach to formulation is to use emollients derived from natural oils. Emollients derived from natural oils are derived from plant sources, such as palm oil or coconut oil. One example of an emollient derived from natural oils may be a liquid triglyceride, defined as liquid at 25°C. Thus, products that hope to emphasize natural ingredients may have a significant amount of a liquid triglyceride, for example.

20 In order to provide structure to the deodorant stick composition, the formulation may also include a number of waxes and other structurants. However, the structurants used may lead to deodorant sticks that are very hard. For example, a currently marketed product, Comparative Formula 1 below, has 34.15% liquid triglyceride, along with a number of structurants, resulting in a very hard stick, scoring 63 on a needle penetration test under ASTM D-1321 (as described herein). So while Comparative Formula 1 uses consumer-preferred natural ingredients, it does not necessarily provide a good
25 consumer experience when used, given its hardness. Comparative Formula 2 contains even higher levels of structurants, resulting in a harder stick with an even lower hardness score. In comparison, Inventive Examples 1-5, while comprising consumer-preferred natural ingredients, have higher hardness scores, meaning they are softer products.

Table 1:

	Comparative Formula 1	Comparative Formula 2	Inventive Example 1	Inventive Example 2	Inventive Example 3	Inventive Example 4	Inventive Example 5
Hardness (Penetration mm*10)	63	56	97	90	117	86	85
Caprylic/Capric Triglyceride	34.15	31.15	43.4	44.7	42.7	46.9	46.15
Arrowroot Powder	23	23	19	23	23	19	
Stearyl Alcohol	12	12	11.5	10.7	10.7		
Ozokerite					1.5	11	11.75
Castor Wax	3	4	3	3	3		
Baking Soda	12	12	12	12	6	6	
Magnesium Hydroxide					6	6	12.0
Shea Butter	6	6	2	2	2	2	2
Coconut Oil	4.75	4.75	4.5	4.5	4.5	4.5	4.5
Polyglycerol-3 Beeswax	2.5	3.5					
Jojoba Esters 70	1	2					
Glyceryl Caprylate (and) Glyceryl Undecylenate	1	1					
Perfumes	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Cyclodextrin			4			4	4
Tapioca Starch							19.0

It is known that to formulate a solid antiperspirant or deodorant stick, the structurants generally have a melting point above 50°C to provide a stable structure to the stick. The present inventors have discovered that a deodorant stick having at least about 25% of a liquid triglyceride, and that uses a primary structurant that has a melting point of at least about 50°C, in some embodiments from about 50°C to 70°C and in still other embodiments from about 50°C to about 75°C, while limiting the amount of secondary structurants having a melting point of at least about 60°C to 8% or less, can result in a deodorant stick with a hardness from about 80 mm*10 to about 140 mm*10. Such a deodorant stick is able to comprise consumer-perceived natural ingredients, while offering a pleasant consumer experience in terms of its hardness.

A. Structurants

The deodorant compositions of the present invention comprise a suitable concentration of structurants to help provide the compositions with the desired viscosity, rheology, texture and/or product hardness, or to otherwise help suspend any dispersed solids or liquids within the composition.

5 The primary structurant in the present invention may have a melting point of at least about 50°C, in some embodiments from about 50°C to about 70°C, and in other embodiments from about 50°C to about 75°C, and in other embodiments from about 60°C to 80°C. A primary structurant is defined as the structurant that is present in the composition in the greatest amount (liquid triglycerides are not considered a structurant in this context). Some embodiments may have just a single structurant, so may have only a primary structurant. Other embodiments may have a primary structurant and then secondary structurants, those structurants that are used in a lesser amount than the primary structurant.

10 The primary structurant may comprise from about 5 % to about 20%, in some cases 7-17% of the deodorant stick. The secondary structurants may cumulatively comprise about 12% or less, or about 8% or less of the deodorant stick, in some embodiments less than about 5%, less than about 3%, or less than about 1% of the deodorant stick. In some embodiments, the deodorant stick may be free of or substantially free of any secondary structurants

15 In some embodiments, some secondary structurants may have a melting point less than 60°C, and then remaining secondary structurants have a melting point of at least about 60°C. The percentage of secondary structurants having a melting point less than 60°C may not be as significant as the percentage of secondary structurants having a melting point of at least about 60°C, as the higher melting structurants are what contribute more to the hardness of the deodorant stick. So in some embodiments, the secondary structurants having a melting point of at least about 60°C may cumulatively comprise 8% or less of the deodorant stick, in some embodiments less than about 5% of the deodorant stick, less than about 3% of the deodorant stick, or less than about 1% of the deodorant stick. In some embodiments, the deodorant stick may be free of or substantially free of any secondary structurants having a melting point of at least about 60°C.

20 The term "structurant" as used herein means any material known or otherwise effective in providing suspending, gelling, viscosifying, solidifying, and/or thickening properties to the composition or which otherwise provide structure to the final product form.

25 Waxes with melting points between 50°C and 70°C include Japan wax, lemon wax, grapefruit wax, beeswax, ceresine, paraffin, hydrogenated jojoba, ethylene glycol distearate, stearyl stearate,

palmityl stearate, stearyl behenate, cetearyl behenate, hydrogenated high erucic acid rapeseed oil, and stearyl alcohol.

Waxes with melting points above 70°C include ozokerite, candelilla, carnauba, espartograss, cork wax, guaruma, rice oil wax, sugar cane wax, ouricury, montan ester wax, sunflower wax, shellac, ozocerite, microcrystalline wax, sasol wax, polyethylenes, polymethylenes, ethylene glycol dipalmitate, ethylene glycol di(12-hydroxystearate), behenyl behenate, glyceryl tribehenate, hydrogenated castor oil (castor wax), and behenyl alcohol.

Waxes with melting points that could vary and possibly fall into either of the two previous groups (depending on factors such as chain length) include C18-C36 triglyceride, Fischer-Tropsch waxes, silicone waxes, C30-50 alkyl beeswax, C20-40 alkyl erucates, C18-38 alkyl hydroxy stearyl stearates, C20-40 dialkyl esters of dimer acids, C16-40 alkyl stearates, C20-40 alkyl stearates, cetyl ester wax, and spermaceti.

Suitable gelling agents include fatty acid gellants such as fatty acid and hydroxyl or alpha hydroxyl fatty acids, having from about 10 to about 40 carbon atoms, and ester and amides of such gelling agents. Non-limiting examples of such gelling agents include, but are not limited to, 12-hydroxystearic acid, 12-hydroxylauric acid, 16-hydroxyhexadecanoic acid, behenic acid, eurcic acid, stearic acid, caprylic acid, lauric acid, isostearic acid, and combinations thereof. Preferred gelling agents are 12-hydroxystearic acid, esters of 12-hydroxystearic acid, amides of 12-hydroxystearic acid and combinations thereof.

These solid structurants include gelling agents, and polymeric or non-polymeric or inorganic thickening or viscosifying agents. Such materials will typically be solids under ambient conditions and include organic solids, crystalline or other gellants, inorganic particulates such as clays or silicas, or combinations thereof.

The concentration and type of solid structurant selected for use in the deodorant compositions will vary depending upon the desired product hardness, rheology, and/or other related product characteristics. For most structurants suitable for use herein, the total structurant concentration ranges from about 5% to about 35%, more typically from about 10% to about 30%, or from about 7% to about 20%, by weight of the composition.

Non-limiting examples of suitable primary structurants include stearyl alcohol and other fatty alcohols; hydrogenated castor wax (e.g., Castorwax MP80, Castor Wax, etc.); hydrocarbon waxes include paraffin wax, beeswax, carnauba, candelilla, spermaceti wax, ozokerite, ceresin, baysberry, synthetic waxes such as Fisher-Tropsch waxes, and microcrystalline wax; polyethylenes with

molecular weight of 200 to 1000 daltons; solid triglycerides; behenyl alcohol, or combinations thereof. The deodorant stick may further comprise one or more structural elements selected from the group consisting of waxes, natural oils, coconut oil, fractionated coconut oil, jojoba seed oil, olive oil, soybean oil, sunflower oil, and combinations thereof.

5 Other non-limiting examples of primary structurants suitable for use herein are described in U.S. Pat. No. 5,976,514 (Guskey et al.) and U.S. Pat. No. 5,891,424 (Bretzler et al.), the descriptions of which are incorporated herein by reference.

Non-limiting examples of suitable additional structurants include stearyl alcohol and other fatty alcohols; hydrogenated castor wax (e.g., Castorwax MP80, Castor Wax, etc.); hydrocarbon
10 waxes include paraffin wax, beeswax, carnauba, candelilla, spermaceti wax, ozokerite, ceresin, baysberry, synthetic waxes such as Fisher-Tropsch waxes, and microcrystalline wax; polyethylenes with molecular weight of 200 to 1000 daltons; and solid triglycerides; behenyl alcohol, or combinations thereof.

Other non-limiting examples of additional structurants suitable for use herein are described in
15 U.S. Pat. No. 5,976,514 (Guskey et al.) and U.S. Pat. No. 5,891,424 (Bretzler et al.).

B. Emollients

As discussed, an effective and consumer-preferred emollient may be a liquid triglyceride. Derived directly from plant sources, they are often short chains. Longer chain triglycerides may be
20 used as structurants in deodorant or antiperspirant sticks, but the triglycerides of the present invention are liquid at room temperature (25°C) and tend to be shorter chains. An example may be caprylic / capric triglyceride (coconut oil fractionated).

The present inventive deodorant sticks may comprise at least about 25% of one or more liquid triglyceride, in some embodiments, at least about 30%, at least 35%, at least about 40% , at least about
25 45%, or at least about 50% liquid triglyceride, by weight of the composition. In some embodiments, the deodorant stick comprises from about 25% to about 60%, by weight of the composition, of one or more liquid triglyceride, from about 25% to about 50%, from about 30% to about 50%, from about 35% to about 60%, from about 35% to about 50%, from about 40% to about 60%, or from about 40% to about 50%, by weight of the composition, of one or more liquid triglyceride. In general, the greater
30 amount of liquid in the formulation, the softer the deodorant stick may be. The more solids in the formulation leads to greater hardness. Because achieving a sufficient softness in a deodorant stick with natural ingredients can be a challenge, it can be beneficial to formulate with higher amounts of

liquids such as liquid triglyceride. The level of liquid triglyceride as referred to herein may be the sum total of one or more types of liquid triglyceride in a particular deodorant stick.

In some embodiments, additional emollients may be used, such as plant oils (generally used at less than 10%) including olive oil, coconut oil, sunflower seed oil, jojoba seed oil, avocado oil, canola oil, and corn oil. Additional emollients including mineral oil; shea butter, PPG-14 butyl ether; isopropyl myristate; petrolatum; butyl stearate; cetyl octanoate; butyl myristate; myristyl myristate; C12-15 alkylbenzoate (e.g., Finsolv.TM.); octyldodecanol; isostearyl isostearate; octododecyl benzoate; isostearyl lactate; isostearyl palmitate; isobutyl stearate; dimethicone, and any mixtures thereof.

C. Antimicrobials

The present invention may include one or more antimicrobial compositions. For example, antimicrobials may include, without being limited to, baking soda, hexamidine, magnesium carbonate, zinc carbonate, thymol, magnesium hydroxide, magnesium hydroxide and magnesium carbonate hydroxide (dead sea salt), partially carbonated magnesium hydroxide, sodium carbonate, calcium carbonate, magnesium carbonate hydroxide, cinnamon essential oil, cinnamon bark essential oil, cinnamic aldehyde, polyvinyl formate, salicylic acid, niacinamide, phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, citral, triethyl citrate, sepiwhite, an substituted or unsubstituted 2-pyridinol-N-oxide material (piroctone olamine), and combinations thereof. The deodorant stick may be free of or substantially free of a substituted or unsubstituted 2-pyridinol-N-oxide material.

In general, the total amount of antimicrobial used in the present invention may be from about 0.1% to about 30%, by weight, of the deodorant. Some antimicrobials may be used in amounts as low as about 0.1%, by weight of the deodorant stick, such as if using piroctone olamine or hexamidine as the primary antimicrobial, while others could be as high as about 25% if using magnesium hydroxide or magnesium hydroxide and magnesium carbonate hydroxide as the primary antimicrobial (primary antimicrobial being the antimicrobial present in the composition in the highest amount). In the latter cases, baking soda might still be used at a lower level, such as from about 0.1% to about 6%, as a secondary antimicrobial, or not at all.

Any of the antimicrobials of the present invention may be used as powders. It is believed that antimicrobial powders may provide a better deposition and have more longevity on the skin than antimicrobials delivered in a different form. In addition, it is believed that antimicrobial powders of a

certain average particle size, typically from about 1 micron to about 5 microns, may provide a significant increase in antimicrobial efficacy.

Many antimicrobials can be effective at minimizing the skin surface bacteria. However, as a leave-on product where odor may not occur until later, even hours after application, deodorant antimicrobials are needed that will be effective for long periods of time. So while deodorant antimicrobials may be effective immediately upon application on the skin, it is believed that odor comes back quickly because the bacteria living around the hair follicle can quickly repopulate the skin surface bacteria. Historical approaches using high skin penetrating liquid antimicrobials to affect this region (for example, hexanediol) can cause irritation. Therefore, the present invention may target methods and mechanisms that can more effectively deliver antimicrobials not only to the skin surface, but to the bacteria in and around the hair follicle. While not wanting to be bound to the theory, the inventors of the present inventor believe that powders, specifically powders with an average particle size of less than about 10 microns, in some cases from about 1 micron to about 5 microns, are more efficient at getting into the hair follicle where the bacteria live and repopulate the skin surface. In some embodiments, the antimicrobials may be a combination of larger sized particles and smaller particles that are from 1 to 10 microns. As noted above, solids such as powders can impact the overall hardness of the deodorant stick. In general, greater amounts of powders and structurants increase the deodorant stick's hardness.

The present inventors have discovered that the water solubilities of certain components in the solid stick deodorant have great importance. Some deodorant ingredients will bring in moisture to the batch, which can solvate these components to different extents when the water evaporates and subsequently recondenses as free water in the batch. Certain batch processing conditions (such as a closed top on the tank) could more effectively trap this water in the tank, where it is then free to interact with components of the batch. For example, highly water soluble alkaline powders can contribute negatively towards natural and essential oil stability when dissolved. This is because many natural and essential oils contain a broad range of perfume chemicals, many of which can undergo degradation reactions when exposed to extreme pH or heat. This is why many natural and essential oils have shorter shelf lives than many commercial synthetic chemicals or perfumes. And certain antimicrobials may cause irritation due to high water solubility. Further, high water solubility can lead to grittier products as the more water soluble powders can agglomerate when exposed to moisture released from powders during the heat of manufacture.

Thus, embodiments of the present invention may include an antimicrobial with a low water solubility. An antimicrobial with a low water solubility may be, in some embodiments, an

antimicrobial with a water solubility of at most 90 g/L at 25°C, in other embodiments at most 75 g/L at 25°C, or in still other embodiments at most 50 g/L at 25°C.

Materials with a water solubility above 90 g/L @25°C include but are not limited to: potassium carbonate, potassium bicarbonate, sodium carbonate, sodium sesquicarbonate, triethyl citrate, and baking soda. Materials with a water solubility below 90 g/L @25°C include but are not limited to: beryllium carbonate, magnesium carbonate, calcium carbonate, magnesium hydroxide, magnesium hydroxide and magnesium carbonate hydroxide, partially carbonated magnesium hydroxide, piroctone olamine, hexamidine, zinc carbonate, thymol, polyvinyl formate, salicylic acid, phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, citral, and triethyl citrate. Each of beryllium carbonate, magnesium carbonate, calcium carbonate, magnesium hydroxide, magnesium hydroxide and magnesium carbonate hydroxide, partially carbonated magnesium hydroxide, piroctone olamine, hexamidine, zinc carbonate, thymol, polyvinyl formate, salicylic acid, phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, and citral have a water solubility below 75 g/L @25°C, below 50 g/L @25°C, below 1 g/L @25°C, and below 0.2 g/L @25°C.

D. Antimicrobial Activity

Table 2 below shows the raw material microbial inhibition concentration data tested against two key underarm bacteria strains. As can be seen, the first three listed antimicrobials, lupamin, hexamidine, and piroctone olamine, perform particularly well against the bacteria as raw materials. Also performing well as raw materials are phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, citral, triethyl citrate, and sepiwhite. Also performing moderately well against the bacteria as raw materials were magnesium carbonate/magnesium hydroxide and calcium carbonate.

TABLE 2:

Antimicrobial	<i>C. mucofaciens</i>	<i>S. epidermidis</i>
Lupamin	<2 ppm	4 ppm
Hexamidine 36mg/ml H ₂ O	<2 ppm	7 ppm
100 mg/ml piroctone olamine in H ₂ O	< 5 ppm	10 ppm
100% Phenoxyethanol	400 ppm	800 ppm%
Eugenol 99% ETOH	773 ppm	773 ppm
Linolenic Acid 70% ETOH	1093 ppm	1093 ppm
Dimethyl Succinate 98% ETOH	1531 ppm	3062 ppm
Citral 96% ETOH	1500 ppm	1500 ppm
100% Triethyl citrate	1600 ppm	1600 ppm
Sepiwhite 40 mg/ml H ₂ O ins	2000 ppm	1000 ppm
Magnesium Carbonate & Magnesium Hydroxide 50 mg/ml H ₂ O ins	>2500 ppm	>2500 ppm
Ca Carbonate 50 mg/ml H ₂ O ins	>2500 ppm	>2500 ppm
Linoleic acid 100% ETOH	3125 ppm	3125 ppm
Conarom B (beta Bio) 100% ETOH	3125 ppm	3125 ppm
Hexyl Decanol 97% ETOH	6062 ppm	3031 ppm
Ajowan oil 50% ETOH	12500 ppm	6300 ppm
Oregano oil 50% ETOH	12500 ppm	6300 ppm
100% Ethylhexyl glycerin	12500 ppm	12500 ppm
Mineral oil 50% in ETOH	12500 ppm	>50000 ppm
ACH 50% in H ₂ O	25000 ppm	25000 ppm
NaCl 250mg/ml H ₂ O	>25000 ppm	>25000 ppm
Farnesol 95% ETOH	47500 ppm	5937 ppm
Phytol 97% ETOH	>49000 ppm	>49000 ppm
Nerolidol 98% ETOH	>49000 ppm	>49000 ppm
CaCl 500mg/ml H ₂ O	>50000 ppm	>50000 ppm
Isopropyl Myristate 98% ETOH	>59000 ppm	>59000 ppm

While numerous antimicrobials exhibit efficacy against two main bacteria strains that antiperspirants and deodorants try to address, due to regulatory and safety reasons, there are sometimes limits as to how much of a particular antimicrobial may be put into an antiperspirant or deodorant formula. Therefore, there may be a need for multiple antimicrobials to work together in a formula to deliver enough long-term odor protection.

DEODORANT COMPOSITION

The deodorant compositions as described herein can contain a structurant, an antimicrobial, a perfume, and additional chassis ingredient(s). The deodorant composition may further comprise other

optional ingredient(s). The compositions can be in the form of a solid stick. The compositions may be free of dipropylene glycol, added water, castor wax, or any combination thereof. The compositions may be substantially free of or free of a substituted or unsubstituted 2-pyridinol-N-oxide material (piroctone olamine). The deodorant composition may be anhydrous. The deodorant composition may be free of added water.

Hardness

The deodorant compositions of the present invention may have a product or stick hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle (see Hardness test method below). In some embodiments, the product hardness may be from about 80 to about 120 mm*10, and in others from about 85 to about 100 mm*10.

Perfume

Perfumes are often a combination of many raw materials, known as perfume raw materials. Any perfume suitable for use in a deodorant composition may be used herein. In some embodiments, the deodorant composition may be free of, or substantially free of a synthetic fragrance. A synthetic fragrance is one mostly derived through chemical synthesis where the starting material is no longer intact, but is converted to the new fragrance chemical.

A natural or essential oil fragrance is a result of natural sources wherein the fragrance material is not altered (chemically modified) but extracted from its natural source. These sources can include, but are not limited to, bark, flowers, blossoms, fruits, leaves, resins, roots, bulbs, and seeds. Natural or essential oils go through an extraction process instead of chemical synthesis. Extraction processes include, but are not limited to, maceration, solvent extraction, distillation, expression of a fruit peel, or effleurage.

Additional Chassis Ingredients

Starch

The deodorant composition may comprise a starch powder for dry feel or wetness absorption. Examples include but are not limited to arrowroot powder, tapioca starch, and corn starch.

Solvent

Non-Volatile Organic Fluids

Non-volatile organic fluids may be present, for example, in an amount of about 15% or less, by weight of the composition.

Non-limiting examples of nonvolatile organic fluids include mineral oil, PPG-14 butyl ether, isopropyl myristate, petrolatum, butyl stearate, cetyl octanoate, butyl myristate, myristyl myristate, C12-15 alkylbenzoate (e.g., Finsolv.TM.), octyldodecanol, isostearyl isostearate, octododecyl benzoate, isostearyl lactate, isostearyl palmitate, and isobutyl stearate.

Other Optional Ingredients

The anhydrous deodorant compositions of the present invention may further comprise any optional material that is known for use in antiperspirant and deodorant compositions or other personal care products, or which is otherwise suitable for topical application to human skin.

One example of an optional ingredient is a scent expression material. Scent expression or release technology may be employed with some or all of the fragrance materials to define a desired scent expression prior to use and during use of the deodorant products. Such scent expression or release technology can include cyclodextrin complexing material, like beta cyclodextrin. Other materials, such as, for example, starch-based matrices or microcapsules may be employed to "hold" fragrance materials prior to exposure to bodily-secretions (e.g., perspiration). The encapsulating material may have release mechanisms other than via a solvent; for example, the encapsulating material may be frangible, and as such, rupture or fracture with applied shear and/or normal forces encountered during application and while wearing. A microcapsule may be made from many materials, one example is polyacrylates.

Another example of optional materials are clay mineral powders such as talc, mica, sericite, silica, magnesium silicate, synthetic fluorphlogopite, calcium silicate, aluminum silicate, bentonite and montomorillonite; pearl pigments such as alumina, barium sulfate, calcium secondary phosphate, calcium carbonate, titanium oxide, finely divided titanium oxide, zirconium oxide, zinc oxide, hydroxy apatite, iron oxide, iron titrate, ultramarine blue, Prussian blue, chromium oxide, chromium hydroxide, cobalt oxide, cobalt titanate, titanium oxide coated mica; organic powders such as polyester, polyethylene, polystyrene, methyl methacrylate resin, cellulose, 12-nylon, 6-nylon, styrene-acrylic acid copolymers, poly propylene, vinyl chloride polymer, tetrafluoroethylene polymer, boron nitride, fish scale guanine, laked tar color dyes, laked natural color dyes; and combinations thereof.

Talc, if used at higher levels can produce a significant amount of white residue which has been found to be a consumer negative for product acceptance. Therefore it is best to limit the composition

to less than 10%, less than about 8%, less than about 6%, or less than about 3%, by weight of the composition.

Nonlimiting examples of other optional materials include emulsifiers, distributing agents, antimicrobials, pharmaceutical or other topical active, preservatives, surfactants, chelants, and so forth. Examples of such optional materials are described in U.S. Pat. No. 4,049,792 (Elsnau); U.S. Pat. No. 5,019,375 (Tanner et al.); and U.S. Pat. No. 5,429,816 (Hofrichter et al.); which descriptions are incorporated herein by reference.

Method of Making

The deodorant stick products of the present invention may be made by mixing all the components of the products in an open-top or vented tank. Many powders come with bound moisture, especially naturally high moisture powders like starches. In a mostly anhydrous process with waxes, melting the waxes above their melt point can release this bound water as the batch temperature increases. In a closed tank process this water vapor will condense in the tank and drip back into the batch as water. This water can interact with the most water soluble ingredients in the batch to have negative effects on the product, including releasing the pH of any antimicrobial ingredient, which can then degrade any perfume ingredients in the batch. Additionally, the condensed water can interfere with the wax and produce a stick softer than intended.

The present invention reduces the risk of these negative consequences. The ideal process remedy for this behavior is to produce the batches in one of four ways:

1. An open tank system where the water vapor can leave the batch tank to reduce or eliminate condensation.
2. A vented closed tank to also remove water vapor during the batch process.
3. A dual phase process where the moisture containing powders can be put into the cold phase separate from the wax phase which is heated. These two phases are then mixed before filling.
4. A low residence time batch process for a closed system, where the product has less than 3 hours residence time above 50°C to reduce the rate of reaction from the moisture.

A method of making a deodorant composition or stick may comprise the steps of combining any of the herein described deodorant composition components in an open tank system or a vented closed tank. The components may be mixed, heated, and then cooled into a stick product. In some embodiments, the deodorant components may comprise at least about 40% of a liquid triglyceride, by

weight of the composition, and an antimicrobial in an open tank system, heating the components, mixing the components, and cooling the components.

Test Methods

5 Hardness Test Method – Penetration measurement for deodorant finished products

The penetration test is a physical test method that provides a measure of the firmness of waxy solids and extremely thick creams and pastes with penetration values not greater than 250 when using a needle for D1321. The method is based on the American Society for Testing and Materials Methods
10 D-5, D1321 and D217 and DIN 51 579 and is suitable for all solid antiperspirant and deodorant products.

A needle or polished cone of precisely specified dimensions and weight is mounted on the bottom of a vertical rod in the test apparatus. The sample is prepared as specified in the method and positioned under the rod. The apparatus is adjusted so that the point of the needle or cone is just
15 touching the top surface of the sample. Consistent positioning of the rod is critical to the measured penetration value. The rod is then released and allowed to travel downward, driven only by the weight of the needle (or cone) and the rod. Penetration is the tenths of a millimeter travelled following release.

APPARATUS

SUGGESTED TYPE (OR EQUIVALENT)

Penetrometer with Timer (see attached drawings Attachment 1 and Attachment 2)

Penetrometer Suitable For ASTM D-5 and D-1321 methods; Examples: Precision or Humboldt Universal Penetrometer (Humboldt Manufacturing, Schiller Park, IL USA) *or* Penetrometer Model PNR10 or PNR12 (Petrolab USA or PetroTest GmbH).

Penetration Needles

ANTIPERSPIRANT or DEODORANT SOLIDS can use:

- Needles as specified for ASTM Method D-5, NIST Certified, Fisher Scientific #01-512.

- Needles as specified for ASTM Method D 1321 /DIN 51 579, Officially certified, Taper-Tipped needle, No. H-1310, Humboldt Mfg.

General Instructions – All Penetrometers - Keep the instrument and needles/probes clean at all times, free from dust and grime. When not in use, store needles in a suitable container to avoid damage.

Periodic calibration should confirm:

Electronic Timer is correctly set. Verify against an independent stopwatch if unsure.

- 5 Shaft falls without visible signs of frictional resistance.

Ensure the total weight of the shaft and needle is 50 ± 0.2 grams when the shaft is in free fall.

Note: for modern, automated or digital systems this may be performed automatically and confirmed through annual calibration.

At time of use confirm:

- 10 Electronic Timer is correctly set to 5.0 seconds.

The appropriate needle is installed and is clean, straight and without obvious defects (visual inspection)

The penetrometer is level and the shaft is clean, straight and falls freely (visual inspection)

Once level, avoid shifting the position of the unit to maintain level.

15

Sample Preparation and Measurement

1. On a deodorant stick that has cooled ambiently to a temperature between 22°C and 26°C for at least 24 hours, slice off top ½ inch of product to achieve a flat surface with a wire cutter drawn across the upper lip of the canister.

- 20 2. For the first sample to be tested, lubricate the needle by gently wiping with a lint-free tissue coated with a small amount of the product to be tested. This small amount is typically taken from the shaved top.

3. Place the canister in the appropriate location for the measurement. Locate the sample so the needle will penetrate the product 9-11mm from the inside of the canister wall on the long axis.

- 25 4. Using the coarse and fine adjustments, align the height of the penetrometer mechanism head so that the point of the penetrating needle is just touching the surface of the sample.

A weak light at the side of the penetrometer which casts a shadow of the needle on the surface of the sample may be helpful in determining this contact. When a light area on the sample cannot be seen at

the end of the tip of the needle's shadow, the needle height over the sample is correctly adjusted. The light should not be strong enough to heat or melt the sample surface. The needle should be just close enough to scratch the sample surface.

5. Perform the penetration measurement at this location by releasing the needle. Record the result.

- 5 6. Repeat Steps 2 through 4 at the other test point, i.e., at the other point 9-11mm inside of the canister wall on the long axis.

To report results, units for penetration are tenths of a millimeter ($1/10\text{mm} = 100\text{microns}$). For example, a result of 80 units is $80\text{ mm} \times 10$ or 8 mm. Report the average results of at least 4 total measurements from 2 different sticks, report to the nearest tenth of a millimeter.

10

Tier 1 Anaerobic MIC Assay

The data in Table 2 above was generated with the following test method. The purpose of this assay is to determine if a compound or formulation has an antimicrobial effect *in vitro*.

It is understood that when not specifically noted in this procedure:

- 15 a) All materials, reagents and equipment required for this procedure are of appropriate design and condition of cleanliness and/or sterility as determined by their intended use.

b) The operator has been trained in aseptic technique and has been qualified to perform the procedure and accurately interpret the results.

- c) All media required for this procedure was manufactured by a reputable commercial source
20 egg. Difco, Merck etc. and has been stored and prepared as per manufacturer's instructions.

d) All routine laboratory controls, including but not limited to, media function and growth promotion tests, verification of sterility and use of positive and negative controls are being conducted.

Procedure: (All procedures performed in anaerobic chamber except where noted)

25

1. Apparatus

Incubator at 37°C ; 20-200ul 12 channel pipette; 5-50ul 12 channel pipette; 1250ul 8 channel Thermo Scientific Matrix pipette; 96 well plate shaker (located in incubator); Beckman Coulter deep well cap mat #267005; Beckman Coulter deep 96 well plates #267007; Falcon 96 well tissue culture plates #353072; Vortexer ; Culture tubes/caps
30 Disposable sterile gloves; Sterile petri dishes; Standard microbiological lab equipment

(sterile pipettes, syringes, tips, loops, etc.); Glass bottles/flasks for media; Autoclave; Parafilm; Spectrophotometer.

2. Media

0.9% or 0.85% saline solution

5 BHI agar supplemented with 1% Tween 80

BHI media supplemented with 1% Tween 80

3. Microbial Strains

Staphylococcus epidermidis (clinical isolate)

Corynebacterium mucofaciens (clinical isolate)

10

4. Test Procedure

Inoculum Preparation

15 Prior to testing streak organisms for isolation on BHI with 1% Tween 80 plates, wrap with parafilm and place in 37°C incubator. When isolated colonies appear remove one representative colony from each plate and place each in 5 ml of BHI with 1% Tween 80 media. Incubate at 37°C with shaking overnight. Inoculate 20ml BHI with 1% Tween 80 (per 96 deep well plate to be tested) with 20ul of the overnight culture (1-1000 dilution).

Master Plate Preparation

20 Compounds/formulations to be tested are diluted across a 96 deep well plate as shown below (for a 1% stock solution). 800ul of 0.85% saline is added to wells A1 and B1 (as these will be the negative and positive control respectively). 800ul each 1% stock solution + positive control are added to wells C1 through H1. 400ul 0.85% saline are added to all other wells. 400ul is then removed from #1 well added to the #2 well and mixed. This is
25 then continued across the plate resulting in a 50% dilution between wells across the plate (this can be easily accomplished with an automatic 8 channel Matrix pipette set to withdraw, dispense and mix).

	1	2	3	4	5	6	7	8	9	10	11	12
A	800ul saline	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
B	800ul saline	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
C	800ul + control	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
D	800ul compound 1	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
E	800ul compound 2	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
F	800ul compound 3	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
G	800ul compound 4	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
H	800ul compound 5	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl

	1	2	3	4	5	6	7	8	9	10	11	12
A	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank
B	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos
C	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
D	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
E	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
F	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
G	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
H	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05

Test Plate Preparation

In row A of a 96 deep well plate pipette 180ul of sterile BHI with 1% Tween 80 as a negative growth control. All other wells receive 180ul of inoculum. From the master plate introduce 20ul to the
5 corresponding row in the test plate using an 8-channel pipette. Loaded plates are placed on a plate shaker in the 37°C incubator and incubated overnight. The next day read the O.D. 600 on a plate reader. The MIC is the last well from the right that has no bacterial growth.

The dimensions and values disclosed herein are not to be understood as being strictly limited to the exact numerical values recited. Instead, unless otherwise specified, each such dimension is
10 intended to mean both the recited value and a functionally equivalent range surrounding that value. For example, a dimension disclosed as “40 mm” is intended to mean “about 40 mm.”

It should be understood that every maximum numerical limitation given throughout this specification will include every lower numerical limitation, as if such lower numerical limitations were expressly written herein. Every minimum numerical limitation given throughout this specification
15 will include every higher numerical limitation, as if such higher numerical limitations were expressly written herein. Every numerical range given throughout this specification will include every narrower numerical range that falls within such broader numerical range, as if such narrower numerical ranges were all expressly written herein.

CLAIMS

What is claimed is:

1. A deodorant stick comprising:
 - a. at least one antimicrobial;
 - b. a primary structurant with a melting point of at least about 50°C; and
 - c. less than 8% of secondary structurants having a melting point at least about 60°C;said stick being free of an aluminum salt; and
said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.
2. The deodorant stick of claim 1, wherein the antimicrobial is selected from the group consisting of baking soda, magnesium hydroxide, hexamidine, magnesium carbonate, zinc carbonate, thymol, magnesium hydroxide & magnesium carbonate hydroxide, sodium carbonate, magnesium carbonate hydroxide, partially carbonated magnesium hydroxide, calcium carbonate, polyvinyl formate, salicylic acid, niacinamide, cinnamon essential oil, cinnamon bark essential oil, cinnamic aldehyde and combinations thereof.
3. The deodorant stick of claim 1, wherein the antimicrobial is a powder with a water solubility of at most about 90 g/L at 25°C.
4. The deodorant stick of claim 1, wherein the deodorant stick is substantially free of baking soda.
5. The deodorant stick of claim 1, wherein the deodorant stick is substantially free of a synthetic fragrance.
6. The deodorant stick of any claim 1, wherein the deodorant stick is substantially free of silicones.
7. The deodorant stick of claim 1, wherein the deodorant stick comprises from 0% to 5% silicones.

8. The deodorant stick of claim 1, comprising at least about 25% of a liquid triglyceride.
9. The deodorant stick of claim 1, wherein the antimicrobial comprises baking soda.
10. The deodorant stick of claim 1, wherein the antimicrobial comprises magnesium hydroxide.
11. The deodorant stick of claim 1, wherein the stick comprises from about 8% to about 20% of the primary structurant.
12. The deodorant stick of claim 1, wherein the primary structurant has a melting point from about 50°C to 75°C.
13. The deodorant stick of claim 1, comprising less than 5% of secondary structurants having a melting point above 60°C.
14. A method of making the deodorant stick of claim 1, comprising the steps of combining the deodorant components in an open tank system, mixing the components, heating the components, and cooling the components.

ABSTRACT

A deodorant stick comprising: at least about 25% of a liquid triglyceride; at least one antimicrobial; a primary structurant with a melting point of at least about 50°C; and less than 8% of secondary structurants having a melting point of at least about 60°C; said stick being free of an aluminum salt; and said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

☐	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
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Inventor Information:

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All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button.

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Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

☐ An Address is being provided for the correspondence information of this application.

Customer Number	27752		
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Application Information:

Title of the Invention	DEODORANT COMPOSITIONS		
Attorney Docket Number	15149CC	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)		Suggested Figure for Publication (if any)	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	27752		

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove			
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
	Continuation of	16/716542	2019-12-17		
Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/716542	Continuation of	16/021965	2018-06-28	10543164	2020-01-28
Prior Application Status	Expired	Remove			
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
16/021965	Claims benefit of provisional	62/647104	2018-03-23		
Prior Application Status	Expired	Remove			
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
16/021965	Claims benefit of provisional	62/527180	2017-06-30		
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Remove
			Access Code ⁱ (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. ☐ NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.	
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	15149CC
	Application Number	
Title of Invention	DEODORANT COMPOSITIONS	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.			
Applicant 1			
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.			
Clear			
☒ Assignee		☐ Legal Representative under 35 U.S.C. 117	
☐ Person to whom the inventor is obligated to assign.		☐ Joint Inventor	
☐ Person who shows sufficient proprietary interest			
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Applicant is an Organization check here. ☒			
Organization Name	The Procter & Gamble Company		
Mailing Address Information For Applicant:			
Address 1	Attention: Chief Patent Counsel		
Address 2	One Procter & Gamble Plaza		
City	Cincinnati	State/Province	OH
Country	US	Postal Code	45202
Phone Number	513-983-2114	Fax Number	513-285-3105
Email Address	carter.ky@pg.com		
Additional Applicant Data may be generated within this form by selecting the Add button.			

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	Given Name	Middle Name	Family Name	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		State/Province	
Country ⁱ		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the **INITIAL** filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Kathleen Y. Carter/		Date (YYYY-MM-DD)	2021-03-08
First Name	Kathleen Y.	Last Name	Carter	Registration Number
60583				

Additional Signature may be generated within this form by selecting the Add button.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	March 8, 2021
First Named Inventor	David Arthur STURGIS
Title	DEODORANT COMPOSITIONS
Art Unit	
Examiner Name	
Attorney Docket Number	15149CC

SIGNATURE of Applicant or Patent Practitioner

Signature	/Kathleen Y. Carter	Date (Optional)	March 8, 2021
Name	Kathleen Y. Carter	Registration Number	60583
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)	The Procter & Gamble Company		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.



*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

27752

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☒ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

The Procter & Gamble Company

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

/Jay A Krebs/

Date (Optional)

Name

Jay A. Krebs

Title

Director and Assistant Secretary - Global IP Services, The Procter & Gamble Company

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

DEODORANT COMPOSITIONS

As the below named inventor, I hereby declare that:

This declaration
is directed to:

☐

The attached application, or

☒

United States application or PCT international application number 16/021,965

filed on June 28, 2018

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: David Arthur Sturgis

Date (Optional): 7/18/18

Signature: /David Arthur Sturgis/

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

DEODORANT COMPOSITIONS

As the below named inventor, I hereby declare that:

This declaration
is directed to:

☐

The attached application, or

☒

United States application or PCT international application number 16/021,965

filed on June 28, 2018

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Lindsey Michelle Britt

Date (Optional): 07/18/2018

Signature: /Lindsey Michelle Britt/

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:				
Filing Date:				
Title of Invention:	DEODORANT COMPOSITIONS			
First Named Inventor/Applicant Name:	David Arthur STRUGIS			
Filer:	Kathleen Yates Carter/Linda Wilson			
Attorney Docket Number:	15149CC			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	320	320
UTILITY SEARCH FEE	1111	1	700	700
UTILITY EXAMINATION FEE	1311	1	800	800
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1820

Electronic Acknowledgement Receipt

EFS ID:	42111370
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	Kathleen Yates Carter/Linda Wilson
Filer Authorized By:	Kathleen Yates Carter
Attorney Docket Number:	15149CC
Receipt Date:	08-MAR-2021
Filing Date:	
Time Stamp:	11:18:03
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	15149CC-TransmittalSheet-AsFiled-3-8-21.pdf	145928	no	1
			2d4343f6fda72f70abaabb39034e460b2b36c5b3		

Warnings:

P&G Ex. 2001

Information:					
2		15149CC-Application.pdf	1155414 e2f6f06c9bf4e770247d2ecf3a658bc710447c5d	yes	23
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	20	
	Claims		21	22	
	Abstract		23	23	
Warnings:					
Information:					
3	Application Data Sheet	15149CC-ADS-AsFiled-3-8-21.pdf	112599 7863753ee427751c1adfeb27b5f9ebc8330b8d0a	no	8
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
4	Power of Attorney	15149CC-PowerOfAttorneyAndTransmittal-AsFiled-3-8-21.pdf	129579 c051d6a0bf4164eaf6f26ec8e044e1cb163b1dd1	no	2
Warnings:					
Information:					
5	Oath or Declaration filed	15149-DeclarationSigned-ALL.pdf	545945 b26dd67b4cbc320c7a2f2694ed5bc8c5dea903da	no	2
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	34959 a8d12949923fa1bfaa0ff3648cd63e72318645d	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			2124424		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No.	15149CC
	First Named Inventor	David Arthur STRUGIS
	Title	DEODORANT COMPOSITIONS
	Priority Mail Express® Label No.	

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450
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1. ☐ Fee Transmittal Form (PTO/SB/17 or equivalent) 2. ☐ Applicant asserts small entity status. See 37 CFR 1.27 3. ☐ Applicant certifies micro entity status. See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent. 4. ☒ Specification [Total Pages <u>23</u>] Both the claims and abstract must start on a new page. (See MPEP § 608.01(a) for information on the preferred arrangement) 5. ☐ Drawing(s) (35 U.S.C. 113) [Total Sheets _____] 6. Inventor's Oath or Declaration [Total Pages <u>2</u>] (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e)) a. ☐ Newly executed (original or copy) b. ☒ A copy from a prior application (37 CFR 1.63(d)) 7. ☒ Application Data Sheet * See note below. See 37 CFR 1.76 (PTO/AIA/14 or equivalent) 8. CD-ROM or CD-R in duplicate, large table, or Computer Program (Appendix) ☐ Landscape Table on CD 9. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. – c. are required) a. ☐ Computer Readable Form (CRF) b. ☐ Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies	ACCOMPANYING APPLICATION PAPERS 10. ☐ Assignment Papers (cover sheet & document(s)) Name of Assignee _____ 11. ☐ 37 CFR 3.73(c) Statement ☒ Power of Attorney (when there is an assignee) 12. ☐ English Translation Document (if applicable) 13. ☐ Information Disclosure Statement (PTO/SB/08 or PTO-1449) ☐ Copies of citations attached 14. ☐ Preliminary Amendment 15. ☐ Return Receipt Postcard (MPEP § 503) (Should be specifically itemized) 16. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed) 17. ☐ Nonpublication Request Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent. 18. ☒ Other: Transmittal of Power of Attorney _____ _____ _____ _____
---	--

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
 (2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS					
☒ The address associated with Customer Number: <u>27752</u> OR ☐ Correspondence address below					
Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	
Signature	/Kathleen Y. Carter/			Date	March 8, 2021
Name (Print/Type)	Kathleen Y. Carter			Registration No. (Attorney/Agent)	60,583

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

DEODORANT COMPOSITIONS

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. Patent Application No. 16/716,542, filed on December 17, 2019, which is a continuation of U.S. Patent Application No. 16/021,965, filed June 28, 2018, which claims the benefit of U.S. Provisional Application No. 62/647,104, filed March 23, 2018, and of U.S. Provisional Application No. 62/527,180, filed June 30, 2017.

FIELD OF THE INVENTION

The present disclosure relates to deodorant compositions and methods relating thereto.

BACKGROUND OF THE INVENTION

Many consumers are seeking more natural, aluminum-free deodorant offerings, often mostly free of silicones. Consumers also want a good glide, non-sticky, and non-greasy application. This is a challenge, because a mostly silicone-free formula will often use natural oils or natural oil-based triglycerides. But often natural oils, such as coconut oil, bring a large portion of wax with them, often making the resulting deodorant sticks too hard to meet a more preferable product application for both shaven and unshaven underarms. They are also often undesirably greasy due to the non-volatile nature.

Thus there remains a challenge to formulate an aluminum-free, mostly silicone-free deodorant stick that is not too hard.

SUMMARY OF THE INVENTION

A deodorant stick comprising: at least about 25% of a liquid triglyceride; at least one antimicrobial; a primary structurant with a melting point at least about 50°C; and less than 8% of secondary structurants having a melting point of at least about 60°C; said stick being free of an aluminum salt; and said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.

DETAILED DESCRIPTION OF THE INVENTION

While the specification concludes with claims that particularly point out and distinctly claim the invention, it is believed the present invention will be better understood from the following description.

The present invention can comprise, consist of, or consist essentially of the essential elements and limitations of the invention described herein, as well any of the additional or optional ingredients, components, or limitations described herein.

5 All percentages, parts and ratios are based upon the total weight of the compositions of the present invention, unless otherwise specified. All such weights as they pertain to listed ingredients are based on the active level and, therefore do not include carriers or by-products that may be included in commercially available materials.

The components and/or steps, including those which may optionally be added, of the various embodiments of the present invention, are described in detail below.

10 All documents cited are, in relevant part, incorporated herein by reference; the citation of any document is not to be construed as an admission that it is prior art with respect to the present invention.

All ratios are weight ratios unless specifically stated otherwise.

All temperatures are in degrees Celsius, unless specifically stated otherwise.

15 Except as otherwise noted, all amounts including quantities, percentages, portions, and proportions, are understood to be modified by the word "about", and amounts are not intended to indicate significant digits.

Except as otherwise noted, the articles "a", "an", and "the" mean "one or more".

Herein, "comprising" means that other steps and other ingredients which do not affect the end result can be added. This term encompasses the terms "consisting of" and "consisting essentially of".
20 The compositions and methods/processes of the present invention can comprise, consist of, and consist essentially of the essential elements and limitations of the invention described herein, as well as any of the additional or optional ingredients, components, steps, or limitations described herein.

Herein, "effective" means an amount of a subject active high enough to provide a significant positive modification of the condition to be treated. An effective amount of the subject active will
25 vary with the particular condition being treated, the severity of the condition, the duration of the treatment, the nature of concurrent treatment, and like factors.

The term "anhydrous" as used herein means substantially free of added or free water. From a formulation standpoint, this means that the anhydrous deodorant stick compositions of the present invention contain less than about 1%, and more specifically zero percent, by weight of free or added
30 water, other than the water of hydration typically associated with the particulate deodorant active prior to formulation.

The term "ambient conditions" as used herein refers to surrounding conditions under about one atmosphere of pressure, at about 50% relative humidity, and at about 25 °C, unless otherwise specified. All values, amounts, and measurements described herein are obtained under ambient conditions unless otherwise specified.

5 The term "majority" refers to greater than about 51% of the stated component or parameter.

"Substantially free of" refers to about 2% or less, about 1% or less, or about 0.1% or less of a stated ingredient. "Free of" refers to no detectable amount of the stated ingredient or thing.

10 The term "volatile" as used herein refers to those materials that have a measurable vapor pressure at 25 °C. Such vapor pressures typically range from about 0.01 millimeters of Mercury (mm Hg) to about 6 mmHg, more typically from about 0.02 mmHg to about 1.5 mmHg; and have an average boiling point at one (1) atmosphere of pressure of less than about 250 °C, more typically less than about 235 °C. Conversely, the term "non-volatile" refers to those materials that are not "volatile" as defined herein.

15 As consumers seek more natural ingredients in their deodorants, one approach to formulation is to use emollients derived from natural oils. Emollients derived from natural oils are derived from plant sources, such as palm oil or coconut oil. One example of an emollient derived from natural oils may be a liquid triglyceride, defined as liquid at 25°C. Thus, products that hope to emphasize natural ingredients may have a significant amount of a liquid triglyceride, for example.

20 In order to provide structure to the deodorant stick composition, the formulation may also include a number of waxes and other structurants. However, the structurants used may lead to deodorant sticks that are very hard. For example, a currently marketed product, Comparative Formula 1 below, has 34.15% liquid triglyceride, along with a number of structurants, resulting in a very hard stick, scoring 63 on a needle penetration test under ASTM D-1321 (as described herein). So while Comparative Formula 1 uses consumer-preferred natural ingredients, it does not necessarily provide a good
25 consumer experience when used, given its hardness. Comparative Formula 2 contains even higher levels of structurants, resulting in a harder stick with an even lower hardness score. In comparison, Inventive Examples 1-5, while comprising consumer-preferred natural ingredients, have higher hardness scores, meaning they are softer products.

Table 1:

	Comparative Formula 1	Comparative Formula 2	Inventive Example 1	Inventive Example 2	Inventive Example 3	Inventive Example 4	Inventive Example 5
Hardness (Penetration mm*10)	63	56	97	90	117	86	85
Caprylic/Capric Triglyceride	34.15	31.15	43.4	44.7	42.7	46.9	46.15
Arrowroot Powder	23	23	19	23	23	19	
Stearyl Alcohol	12	12	11.5	10.7	10.7		
Ozokerite					1.5	11	11.75
Castor Wax	3	4	3	3	3		
Baking Soda	12	12	12	12	6	6	
Magnesium Hydroxide					6	6	12.0
Shea Butter	6	6	2	2	2	2	2
Coconut Oil	4.75	4.75	4.5	4.5	4.5	4.5	4.5
Polyglycerol-3 Beeswax	2.5	3.5					
Jojoba Esters 70	1	2					
Glyceryl Caprylate (and) Glyceryl Undecylenate	1	1					
Perfumes	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Cyclodextrin			4			4	4
Tapioca Starch							19.0

It is known that to formulate a solid antiperspirant or deodorant stick, the structurants generally have a melting point above 50°C to provide a stable structure to the stick. The present inventors have discovered that a deodorant stick having at least about 25% of a liquid triglyceride, and that uses a primary structurant that has a melting point of at least about 50°C, in some embodiments from about 50°C to 70°C and in still other embodiments from about 50°C to about 75°C, while limiting the amount of secondary structurants having a melting point of at least about 60°C to 8% or less, can result in a deodorant stick with a hardness from about 80 mm*10 to about 140 mm*10. Such a deodorant stick is able to comprise consumer-perceived natural ingredients, while offering a pleasant consumer experience in terms of its hardness.

A. Structurants

The deodorant compositions of the present invention comprise a suitable concentration of structurants to help provide the compositions with the desired viscosity, rheology, texture and/or product hardness, or to otherwise help suspend any dispersed solids or liquids within the composition.

5 The primary structurant in the present invention may have a melting point of at least about 50°C, in some embodiments from about 50°C to about 70°C, and in other embodiments from about 50°C to about 75°C, and in other embodiments from about 60°C to 80°C. A primary structurant is defined as the structurant that is present in the composition in the greatest amount (liquid triglycerides are not considered a structurant in this context). Some embodiments may have just a single structurant,
10 so may have only a primary structurant. Other embodiments may have a primary structurant and then secondary structurants, those structurants that are used in a lesser amount than the primary structurant.

 The primary structurant may comprise from about 5 % to about 20%, in some cases 7-17% of the deodorant stick. The secondary structurants may cumulatively comprise about 12% or less, or about 8% or less of the deodorant stick, in some embodiments less than about 5%, less than about 3%,
15 or less than about 1% of the deodorant stick. In some embodiments, the deodorant stick may be free of or substantially free of any secondary structurants

 In some embodiments, some secondary structurants may have a melting point less than 60°C, and then remaining secondary structurants have a melting point of at least about 60°C. The percentage of secondary structurants having a melting point less than 60°C may not be as significant as the
20 percentage of secondary structurants having a melting point of at least about 60°C, as the higher melting structurants are what contribute more to the hardness of the deodorant stick. So in some embodiments, the secondary structurants having a melting point of at least about 60°C may cumulatively comprise 8% or less of the deodorant stick, in some embodiments less than about 5% of the deodorant stick, less than about 3% of the deodorant stick, or less than about 1% of the deodorant
25 stick. In some embodiments, the deodorant stick may be free of or substantially free of any secondary structurants having a melting point of at least about 60°C.

 The term "structurant" as used herein means any material known or otherwise effective in providing suspending, gelling, viscosifying, solidifying, and/or thickening properties to the composition or which otherwise provide structure to the final product form.

30 Waxes with melting points between 50°C and 70°C include Japan wax, lemon wax, grapefruit wax, beeswax, ceresine, paraffin, hydrogenated jojoba, ethylene glycol distearate, stearyl stearate,

palmityl stearate, stearyl behenate, cetearyl behenate, hydrogenated high erucic acid rapeseed oil, and stearyl alcohol.

Waxes with melting points above 70°C include ozokerite, candelilla, carnauba, espartograss, cork wax, guaruma, rice oil wax, sugar cane wax, ouricury, montan ester wax, sunflower wax, shellac,
5 ozocerite, microcrystalline wax, sasol wax, polyethylenes, polymethylenes, ethylene glycol dipalmitate, ethylene glycol di(12-hydroxystearate), behenyl behenate, glyceryl tribehenate, hydrogenated castor oil (castor wax), and behenyl alcohol.

Waxes with melting points that could vary and possibly fall into either of the two previous groups (depending on factors such as chain length) include C18-C36 triglyceride, Fischer-Tropsch
10 waxes, silicone waxes, C30-50 alkyl beeswax, C20-40 alkyl erucates, C18-38 alkyl hydroxy stearyl stearates, C20-40 dialkyl esters of dimer acids, C16-40 alkyl stearates, C20-40 alkyl stearates, cetyl ester wax, and spermaceti.

Suitable gelling agents include fatty acid gellants such as fatty acid and hydroxyl or alpha hydroxyl fatty acids, having from about 10 to about 40 carbon atoms, and ester and amides of such
15 gelling agents. Non-limiting examples of such gelling agents include, but are not limited to, 12-hydroxystearic acid, 12-hydroxylauric acid, 16-hydroxyhexadecanoic acid, behenic acid, eucric acid, stearic acid, caprylic acid, lauric acid, isostearic acid, and combinations thereof. Preferred gelling agents are 12-hydroxystearic acid, esters of 12-hydroxystearic acid, amides of 12-hydroxystearic acid and combinations thereof.

20 These solid structurants include gelling agents, and polymeric or non-polymeric or inorganic thickening or viscosifying agents. Such materials will typically be solids under ambient conditions and include organic solids, crystalline or other gellants, inorganic particulates such as clays or silicas, or combinations thereof.

The concentration and type of solid structurant selected for use in the deodorant compositions
25 will vary depending upon the desired product hardness, rheology, and/or other related product characteristics. For most structurants suitable for use herein, the total structurant concentration ranges from about 5% to about 35%, more typically from about 10% to about 30%, or from about 7% to about 20%, by weight of the composition.

Non-limiting examples of suitable primary structurants include stearyl alcohol and other fatty
30 alcohols; hydrogenated castor wax (e.g., Castorwax MP80, Castor Wax, etc.); hydrocarbon waxes include paraffin wax, beeswax, carnauba, candelilla, spermaceti wax, ozokerite, ceresin, baysberry, synthetic waxes such as Fisher-Tropsch waxes, and microcrystalline wax; polyethylenes with

molecular weight of 200 to 1000 daltons; solid triglycerides; behenyl alcohol, or combinations thereof. The deodorant stick may further comprise one or more structural elements selected from the group consisting of waxes, natural oils, coconut oil, fractionated coconut oil, jojoba seed oil, olive oil, soybean oil, sunflower oil, and combinations thereof.

5 Other non-limiting examples of primary structurants suitable for use herein are described in U.S. Pat. No. 5,976,514 (Guskey et al.) and U.S. Pat. No. 5,891,424 (Bretzler et al.), the descriptions of which are incorporated herein by reference.

Non-limiting examples of suitable additional structurants include stearyl alcohol and other fatty alcohols; hydrogenated castor wax (e.g., Castorwax MP80, Castor Wax, etc.); hydrocarbon
10 waxes include paraffin wax, beeswax, carnauba, candelilla, spermaceti wax, ozokerite, ceresin, baysberry, synthetic waxes such as Fisher-Tropsch waxes, and microcrystalline wax; polyethylenes with molecular weight of 200 to 1000 daltons; and solid triglycerides; behenyl alcohol, or combinations thereof.

Other non-limiting examples of additional structurants suitable for use herein are described in
15 U.S. Pat. No. 5,976,514 (Guskey et al.) and U.S. Pat. No. 5,891,424 (Bretzler et al.).

B. Emollients

As discussed, an effective and consumer-preferred emollient may be a liquid triglyceride. Derived directly from plant sources, they are often short chains. Longer chain triglycerides may be
20 used as structurants in deodorant or antiperspirant sticks, but the triglycerides of the present invention are liquid at room temperature (25°C) and tend to be shorter chains. An example may be caprylic / capric triglyceride (coconut oil fractionated).

The present inventive deodorant sticks may comprise at least about 25% of one or more liquid triglyceride, in some embodiments, at least about 30%, at least 35%, at least about 40% , at least about
25 45%, or at least about 50% liquid triglyceride, by weight of the composition. In some embodiments, the deodorant stick comprises from about 25% to about 60%, by weight of the composition, of one or more liquid triglyceride, from about 25% to about 50%, from about 30% to about 50%, from about 35% to about 60%, from about 35% to about 50%, from about 40% to about 60%, or from about 40% to about 50%, by weight of the composition, of one or more liquid triglyceride. In general, the greater
30 amount of liquid in the formulation, the softer the deodorant stick may be. The more solids in the formulation leads to greater hardness. Because achieving a sufficient softness in a deodorant stick with natural ingredients can be a challenge, it can be beneficial to formulate with higher amounts of

liquids such as liquid triglyceride. The level of liquid triglyceride as referred to herein may be the sum total of one or more types of liquid triglyceride in a particular deodorant stick.

In some embodiments, additional emollients may be used, such as plant oils (generally used at less than 10%) including olive oil, coconut oil, sunflower seed oil, jojoba seed oil, avocado oil, canola oil, and corn oil. Additional emollients including mineral oil; shea butter, PPG-14 butyl ether; isopropyl myristate; petrolatum; butyl stearate; cetyl octanoate; butyl myristate; myristyl myristate; C12-15 alkylbenzoate (e.g., Finsolv.TM.); octyldodecanol; isostearyl isostearate; octododecyl benzoate; isostearyl lactate; isostearyl palmitate; isobutyl stearate; dimethicone, and any mixtures thereof.

C. Antimicrobials

The present invention may include one or more antimicrobial compositions. For example, antimicrobials may include, without being limited to, baking soda, hexamidine, magnesium carbonate, zinc carbonate, thymol, magnesium hydroxide, magnesium hydroxide and magnesium carbonate hydroxide (dead sea salt), partially carbonated magnesium hydroxide, sodium carbonate, calcium carbonate, magnesium carbonate hydroxide, cinnamon essential oil, cinnamon bark essential oil, cinnamic aldehyde, polyvinyl formate, salicylic acid, niacinamide, phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, citral, triethyl citrate, sepiwhite, an substituted or unsubstituted 2-pyridinol-N-oxide material (piroctone olamine), and combinations thereof. The deodorant stick may be free of or substantially free of a substituted or unsubstituted 2-pyridinol-N-oxide material.

In general, the total amount of antimicrobial used in the present invention may be from about 0.1% to about 30%, by weight, of the deodorant. Some antimicrobials may be used in amounts as low as about 0.1%, by weight of the deodorant stick, such as if using piroctone olamine or hexamidine as the primary antimicrobial, while others could be as high as about 25% if using magnesium hydroxide or magnesium hydroxide and magnesium carbonate hydroxide as the primary antimicrobial (primary antimicrobial being the antimicrobial present in the composition in the highest amount). In the latter cases, baking soda might still be used at a lower level, such as from about 0.1% to about 6%, as a secondary antimicrobial, or not at all.

Any of the antimicrobials of the present invention may be used as powders. It is believed that antimicrobial powders may provide a better deposition and have more longevity on the skin than antimicrobials delivered in a different form. In addition, it is believed that antimicrobial powders of a

certain average particle size, typically from about 1 micron to about 5 microns, may provide a significant increase in antimicrobial efficacy.

Many antimicrobials can be effective at minimizing the skin surface bacteria. However, as a leave-on product where odor may not occur until later, even hours after application, deodorant antimicrobials are needed that will be effective for long periods of time. So while deodorant antimicrobials may be effective immediately upon application on the skin, it is believed that odor comes back quickly because the bacteria living around the hair follicle can quickly repopulate the skin surface bacteria. Historical approaches using high skin penetrating liquid antimicrobials to affect this region (for example, hexanediol) can cause irritation. Therefore, the present invention may target methods and mechanisms that can more effectively deliver antimicrobials not only to the skin surface, but to the bacteria in and around the hair follicle. While not wanting to be bound to the theory, the inventors of the present inventor believe that powders, specifically powders with an average particle size of less than about 10 microns, in some cases from about 1 micron to about 5 microns, are more efficient at getting into the hair follicle where the bacteria live and repopulate the skin surface. In some embodiments, the antimicrobials may be a combination of larger sized particles and smaller particles that are from 1 to 10 microns. As noted above, solids such as powders can impact the overall hardness of the deodorant stick. In general, greater amounts of powders and structurants increase the deodorant stick's hardness.

The present inventors have discovered that the water solubilities of certain components in the solid stick deodorant have great importance. Some deodorant ingredients will bring in moisture to the batch, which can solvate these components to different extents when the water evaporates and subsequently recondenses as free water in the batch. Certain batch processing conditions (such as a closed top on the tank) could more effectively trap this water in the tank, where it is then free to interact with components of the batch. For example, highly water soluble alkaline powders can contribute negatively towards natural and essential oil stability when dissolved. This is because many natural and essential oils contain a broad range of perfume chemicals, many of which can undergo degradation reactions when exposed to extreme pH or heat. This is why many natural and essential oils have shorter shelf lives than many commercial synthetic chemicals or perfumes. And certain antimicrobials may cause irritation due to high water solubility. Further, high water solubility can lead to grittier products as the more water soluble powders can agglomerate when exposed to moisture released from powders during the heat of manufacture.

Thus, embodiments of the present invention may include an antimicrobial with a low water solubility. An antimicrobial with a low water solubility may be, in some embodiments, an

antimicrobial with a water solubility of at most 90 g/L at 25°C, in other embodiments at most 75 g/L at 25°C, or in still other embodiments at most 50 g/L at 25°C.

Materials with a water solubility above 90 g/L @25°C include but are not limited to: potassium carbonate, potassium bicarbonate, sodium carbonate, sodium sesquicarbonate, triethyl citrate, and baking soda. Materials with a water solubility below 90 g/L @25°C include but are not limited to: beryllium carbonate, magnesium carbonate, calcium carbonate, magnesium hydroxide, magnesium hydroxide and magnesium carbonate hydroxide, partially carbonated magnesium hydroxide, piroctone olamine, hexamidine, zinc carbonate, thymol, polyvinyl formate, salicylic acid, phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, citral, and triethyl citrate. Each of beryllium carbonate, magnesium carbonate, calcium carbonate, magnesium hydroxide, magnesium hydroxide and magnesium carbonate hydroxide, partially carbonated magnesium hydroxide, piroctone olamine, hexamidine, zinc carbonate, thymol, polyvinyl formate, salicylic acid, phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, and citral have a water solubility below 75 g/L @25°C, below 50 g/L @25°C, below 1 g/L @25°C, and below 0.2 g/L @25°C.

D. Antimicrobial Activity

Table 2 below shows the raw material microbial inhibition concentration data tested against two key underarm bacteria strains. As can be seen, the first three listed antimicrobials, lupamin, hexamidine, and piroctone olamine, perform particularly well against the bacteria as raw materials. Also performing well as raw materials are phenoxyethanol, eugenol, linolenic acid, dimethyl succinate, citral, triethyl citrate, and sepiwhite. Also performing moderately well against the bacteria as raw materials were magnesium carbonate/magnesium hydroxide and calcium carbonate.

TABLE 2:

Antimicrobial	<i>C. mucofaciens</i>	<i>S. epidermidis</i>
Lupamin	<2 ppm	4 ppm
Hexamidine 36mg/ml H ₂ O	<2 ppm	7 ppm
100 mg/ml piroctone olamine in H ₂ O	< 5 ppm	10 ppm
100% Phenoxyethanol	400 ppm	800 ppm%
Eugenol 99% ETOH	773 ppm	773 ppm
Linolenic Acid 70% ETOH	1093 ppm	1093 ppm
Dimethyl Succinate 98% ETOH	1531 ppm	3062 ppm
Citral 96% ETOH	1500 ppm	1500 ppm
100% Triethyl citrate	1600 ppm	1600 ppm
Sepiwhite 40 mg/ml H ₂ O ins	2000 ppm	1000 ppm
Magnesium Carbonate & Magnesium Hydroxide 50 mg/ml H ₂ O ins	>2500 ppm	>2500 ppm
Ca Carbonate 50 mg/ml H ₂ O ins	>2500 ppm	>2500 ppm
Linoleic acid 100% ETOH	3125 ppm	3125 ppm
Conarom B (beta Bio) 100% ETOH	3125 ppm	3125 ppm
Hexyl Decanol 97% ETOH	6062 ppm	3031 ppm
Ajowan oil 50% ETOH	12500 ppm	6300 ppm
Oregano oil 50% ETOH	12500 ppm	6300 ppm
100% Ethylhexyl glycerin	12500 ppm	12500 ppm
Mineral oil 50% in ETOH	12500 ppm	>50000 ppm
ACH 50% in H ₂ O	25000 ppm	25000 ppm
NaCl 250mg/ml H ₂ O	>25000 ppm	>25000 ppm
Farnesol 95% ETOH	47500 ppm	5937 ppm
Phytol 97% ETOH	>49000 ppm	>49000 ppm
Nerolidol 98% ETOH	>49000 ppm	>49000 ppm
CaCl 500mg/ml H ₂ O	>50000 ppm	>50000 ppm
Isopropyl Myristate 98% ETOH	>59000 ppm	>59000 ppm

While numerous antimicrobials exhibit efficacy against two main bacteria strains that antiperspirants and deodorants try to address, due to regulatory and safety reasons, there are sometimes limits as to how much of a particular antimicrobial may be put into an antiperspirant or deodorant formula. Therefore, there may be a need for multiple antimicrobials to work together in a formula to deliver enough long-term odor protection.

DEODORANT COMPOSITION

The deodorant compositions as described herein can contain a structurant, an antimicrobial, a perfume, and additional chassis ingredient(s). The deodorant composition may further comprise other

optional ingredient(s). The compositions can be in the form of a solid stick. The compositions may be free of dipropylene glycol, added water, castor wax, or any combination thereof. The compositions may be substantially free of or free of a substituted or unsubstituted 2-pyridinol-N-oxide material (piroctone olamine). The deodorant composition may be anhydrous. The deodorant composition may be free of added water.

Hardness

The deodorant compositions of the present invention may have a product or stick hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle (see Hardness test method below). In some embodiments, the product hardness may be from about 80 to about 120 mm*10, and in others from about 85 to about 100 mm*10.

Perfume

Perfumes are often a combination of many raw materials, known as perfume raw materials. Any perfume suitable for use in a deodorant composition may be used herein. In some embodiments, the deodorant composition may be free of, or substantially free of a synthetic fragrance. A synthetic fragrance is one mostly derived through chemical synthesis where the starting material is no longer intact, but is converted to the new fragrance chemical.

A natural or essential oil fragrance is a result of natural sources wherein the fragrance material is not altered (chemically modified) but extracted from its natural source. These sources can include, but are not limited to, bark, flowers, blossoms, fruits, leaves, resins, roots, bulbs, and seeds. Natural or essential oils go through an extraction process instead of chemical synthesis. Extraction processes include, but are not limited to, maceration, solvent extraction, distillation, expression of a fruit peel, or effleurage.

Additional Chassis Ingredients

Starch

The deodorant composition may comprise a starch powder for dry feel or wetness absorption. Examples include but are not limited to arrowroot powder, tapioca starch, and corn starch.

Solvent

Non-Volatile Organic Fluids

Non-volatile organic fluids may be present, for example, in an amount of about 15% or less, by weight of the composition.

Non-limiting examples of nonvolatile organic fluids include mineral oil, PPG-14 butyl ether, isopropyl myristate, petrolatum, butyl stearate, cetyl octanoate, butyl myristate, myristyl myristate, C12-15 alkylbenzoate (e.g., Finsolv.TM.), octyldodecanol, isostearyl isostearate, octododecyl benzoate, isostearyl lactate, isostearyl palmitate, and isobutyl stearate.

Other Optional Ingredients

The anhydrous deodorant compositions of the present invention may further comprise any optional material that is known for use in antiperspirant and deodorant compositions or other personal care products, or which is otherwise suitable for topical application to human skin.

One example of an optional ingredient is a scent expression material. Scent expression or release technology may be employed with some or all of the fragrance materials to define a desired scent expression prior to use and during use of the deodorant products. Such scent expression or release technology can include cyclodextrin complexing material, like beta cyclodextrin. Other materials, such as, for example, starch-based matrices or microcapsules may be employed to "hold" fragrance materials prior to exposure to bodily-secretions (e.g., perspiration). The encapsulating material may have release mechanisms other than via a solvent; for example, the encapsulating material may be frangible, and as such, rupture or fracture with applied shear and/or normal forces encountered during application and while wearing. A microcapsule may be made from many materials, one example is polyacrylates.

Another example of optional materials are clay mineral powders such as talc, mica, sericite, silica, magnesium silicate, synthetic fluorphlogopite, calcium silicate, aluminum silicate, bentonite and montomorillonite; pearl pigments such as alumina, barium sulfate, calcium secondary phosphate, calcium carbonate, titanium oxide, finely divided titanium oxide, zirconium oxide, zinc oxide, hydroxy apatite, iron oxide, iron titrate, ultramarine blue, Prussian blue, chromium oxide, chromium hydroxide, cobalt oxide, cobalt titanate, titanium oxide coated mica; organic powders such as polyester, polyethylene, polystyrene, methyl methacrylate resin, cellulose, 12-nylon, 6-nylon, styrene-acrylic acid copolymers, poly propylene, vinyl chloride polymer, tetrafluoroethylene polymer, boron nitride, fish scale guanine, laked tar color dyes, laked natural color dyes; and combinations thereof.

Talc, if used at higher levels can produce a significant amount of white residue which has been found to be a consumer negative for product acceptance. Therefore it is best to limit the composition

to less than 10%, less than about 8%, less than about 6%, or less than about 3%, by weight of the composition.

Nonlimiting examples of other optional materials include emulsifiers, distributing agents, antimicrobials, pharmaceutical or other topical active, preservatives, surfactants, chelants, and so forth. Examples of such optional materials are described in U.S. Pat. No. 4,049,792 (Elsnau); U.S. Pat. No. 5,019,375 (Tanner et al.); and U.S. Pat. No. 5,429,816 (Hofrichter et al.); which descriptions are incorporated herein by reference.

Method of Making

The deodorant stick products of the present invention may be made by mixing all the components of the products in an open-top or vented tank. Many powders come with bound moisture, especially naturally high moisture powders like starches. In a mostly anhydrous process with waxes, melting the waxes above their melt point can release this bound water as the batch temperature increases. In a closed tank process this water vapor will condense in the tank and drip back into the batch as water. This water can interact with the most water soluble ingredients in the batch to have negative effects on the product, including releasing the pH of any antimicrobial ingredient, which can then degrade any perfume ingredients in the batch. Additionally, the condensed water can interfere with the wax and produce a stick softer than intended.

The present invention reduces the risk of these negative consequences. The ideal process remedy for this behavior is to produce the batches in one of four ways:

1. An open tank system where the water vapor can leave the batch tank to reduce or eliminate condensation.
2. A vented closed tank to also remove water vapor during the batch process.
3. A dual phase process where the moisture containing powders can be put into the cold phase separate from the wax phase which is heated. These two phases are then mixed before filling.
4. A low residence time batch process for a closed system, where the product has less than 3 hours residence time above 50°C to reduce the rate of reaction from the moisture.

A method of making a deodorant composition or stick may comprise the steps of combining any of the herein described deodorant composition components in an open tank system or a vented closed tank. The components may be mixed, heated, and then cooled into a stick product. In some embodiments, the deodorant components may comprise at least about 40% of a liquid triglyceride, by

weight of the composition, and an antimicrobial in an open tank system, heating the components, mixing the components, and cooling the components.

Test Methods

5 Hardness Test Method – Penetration measurement for deodorant finished products

The penetration test is a physical test method that provides a measure of the firmness of waxy solids and extremely thick creams and pastes with penetration values not greater than 250 when using a needle for D1321. The method is based on the American Society for Testing and Materials Methods
10 D-5, D1321 and D217 and DIN 51 579 and is suitable for all solid antiperspirant and deodorant products.

A needle or polished cone of precisely specified dimensions and weight is mounted on the bottom of a vertical rod in the test apparatus. The sample is prepared as specified in the method and positioned under the rod. The apparatus is adjusted so that the point of the needle or cone is just
15 touching the top surface of the sample. Consistent positioning of the rod is critical to the measured penetration value. The rod is then released and allowed to travel downward, driven only by the weight of the needle (or cone) and the rod. Penetration is the tenths of a millimeter travelled following release.

APPARATUS

SUGGESTED TYPE (OR EQUIVALENT)

Penetrometer with Timer (see attached drawings Attachment 1 and Attachment 2)	Penetrometer Suitable For ASTM D-5 and D-1321 methods; Examples: Precision or Humboldt Universal Penetrometer (Humboldt Manufacturing, Schiller Park, IL USA) <i>or</i> Penetrometer Model PNR10 or PNR12 (Petrolab USA or PetroTest GmbH).
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Penetration Needles

ANTIPERSPIRANT or DEODORANT SOLIDS can use:

- Needles as specified for ASTM Method D-5, NIST Certified, Fisher Scientific #01-512.

- Needles as specified for ASTM Method D 1321 /DIN 51 579, Officially certified, Taper-Tipped needle, No. H-1310, Humboldt Mfg.

General Instructions – All Penetrometers - Keep the instrument and needles/probes clean at all times, free from dust and grime. When not in use, store needles in a suitable container to avoid damage.

Periodic calibration should confirm:

Electronic Timer is correctly set. Verify against an independent stopwatch if unsure.

- 5 Shaft falls without visible signs of frictional resistance.

Ensure the total weight of the shaft and needle is 50 ± 0.2 grams when the shaft is in free fall.

Note: for modern, automated or digital systems this may be performed automatically and confirmed through annual calibration.

At time of use confirm:

- 10 Electronic Timer is correctly set to 5.0 seconds.

The appropriate needle is installed and is clean, straight and without obvious defects (visual inspection)

The penetrometer is level and the shaft is clean, straight and falls freely (visual inspection)

Once level, avoid shifting the position of the unit to maintain level.

15

Sample Preparation and Measurement

1. On a deodorant stick that has cooled ambiently to a temperature between 22°C and 26°C for at least 24 hours, slice off top ½ inch of product to achieve a flat surface with a wire cutter drawn across the upper lip of the canister.

- 20 2. For the first sample to be tested, lubricate the needle by gently wiping with a lint-free tissue coated with a small amount of the product to be tested. This small amount is typically taken from the shaved top.

3. Place the canister in the appropriate location for the measurement. Locate the sample so the needle will penetrate the product 9-11mm from the inside of the canister wall on the long axis.

- 25 4. Using the coarse and fine adjustments, align the height of the penetrometer mechanism head so that the point of the penetrating needle is just touching the surface of the sample.

A weak light at the side of the penetrometer which casts a shadow of the needle on the surface of the sample may be helpful in determining this contact. When a light area on the sample cannot be seen at

the end of the tip of the needle's shadow, the needle height over the sample is correctly adjusted. The light should not be strong enough to heat or melt the sample surface. The needle should be just close enough to scratch the sample surface.

5. Perform the penetration measurement at this location by releasing the needle. Record the result.

- 5 6. Repeat Steps 2 through 4 at the other test point, i.e., at the other point 9-11mm inside of the canister wall on the long axis.

To report results, units for penetration are tenths of a millimeter ($1/10\text{mm} = 100\text{microns}$). For example, a result of 80 units is $80\text{ mm} \times 10$ or 8 mm. Report the average results of at least 4 total measurements from 2 different sticks, report to the nearest tenth of a millimeter.

10

Tier 1 Anaerobic MIC Assay

The data in Table 2 above was generated with the following test method. The purpose of this assay is to determine if a compound or formulation has an antimicrobial effect *in vitro*.

It is understood that when not specifically noted in this procedure:

- 15 a) All materials, reagents and equipment required for this procedure are of appropriate design and condition of cleanliness and/or sterility as determined by their intended use.

b) The operator has been trained in aseptic technique and has been qualified to perform the procedure and accurately interpret the results.

- c) All media required for this procedure was manufactured by a reputable commercial source
20 egg. Difco, Merck etc. and has been stored and prepared as per manufacturer's instructions.

d) All routine laboratory controls, including but not limited to, media function and growth promotion tests, verification of sterility and use of positive and negative controls are being conducted.

Procedure: (All procedures performed in anaerobic chamber except where noted)

25

1. Apparatus

Incubator at 37°C ; 20-200ul 12 channel pipette; 5-50ul 12 channel pipette; 1250ul 8 channel Thermo Scientific Matrix pipette; 96 well plate shaker (located in incubator); Beckman Coulter deep well cap mat #267005; Beckman Coulter deep 96 well plates #267007; Falcon 96 well tissue culture plates #353072; Vortexer ; Culture tubes/caps
30 Disposable sterile gloves; Sterile petri dishes; Standard microbiological lab equipment

(sterile pipettes, syringes, tips, loops, etc.); Glass bottles/flasks for media; Autoclave; Parafilm; Spectrophotometer.

2. Media

0.9% or 0.85% saline solution

5 BHI agar supplemented with 1% Tween 80

BHI media supplemented with 1% Tween 80

3. Microbial Strains

Staphylococcus epidermidis (clinical isolate)

Corynebacterium mucofaciens (clinical isolate)

10

4. Test Procedure

Inoculum Preparation

15 Prior to testing streak organisms for isolation on BHI with 1% Tween 80 plates, wrap with parafilm and place in 37°C incubator. When isolated colonies appear remove one representative colony from each plate and place each in 5 ml of BHI with 1% Tween 80 media. Incubate at 37°C with shaking overnight. Inoculate 20ml BHI with 1% Tween 80 (per 96 deep well plate to be tested) with 20ul of the overnight culture (1-1000 dilution).

Master Plate Preparation

20 Compounds/formulations to be tested are diluted across a 96 deep well plate as shown below (for a 1% stock solution). 800ul of 0.85% saline is added to wells A1 and B1 (as these will be the negative and positive control respectively). 800ul each 1% stock solution + positive control are added to wells C1 through H1. 400ul 0.85% saline are added to all other wells. 400ul is then removed from #1 well added to the #2 well and mixed. This is
25 then continued across the plate resulting in a 50% dilution between wells across the plate (this can be easily accomplished with an automatic 8 channel Matrix pipette set to withdraw, dispense and mix).

	1	2	3	4	5	6	7	8	9	10	11	12
A	800ul saline	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
B	800ul saline	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
C	800ul + control	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
D	800ul compound 1	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
E	800ul compound 2	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
F	800ul compound 3	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
G	800ul compound 4	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl
H	800ul compound 5	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl	400ul NaCl

	1	2	3	4	5	6	7	8	9	10	11	12
A	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank	Media Blank
B	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos	Pos
C	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
D	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
E	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
F	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
G	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05
H	0.1	0.05	0.025	0.0125	0.00625	0.003125	0.0015625	0.00078125	0.000390625	0.000195313	9.76563E-05	4.88281E-05

Test Plate Preparation

In row A of a 96 deep well plate pipette 180ul of sterile BHI with 1% Tween 80 as a negative growth control. All other wells receive 180ul of inoculum. From the master plate introduce 20ul to the
5 corresponding row in the test plate using an 8-channel pipette. Loaded plates are placed on a plate shaker in the 37°C incubator and incubated overnight. The next day read the O.D. 600 on a plate reader. The MIC is the last well from the right that has no bacterial growth.

The dimensions and values disclosed herein are not to be understood as being strictly limited to the exact numerical values recited. Instead, unless otherwise specified, each such dimension is
10 intended to mean both the recited value and a functionally equivalent range surrounding that value. For example, a dimension disclosed as “40 mm” is intended to mean “about 40 mm.”

It should be understood that every maximum numerical limitation given throughout this specification will include every lower numerical limitation, as if such lower numerical limitations were expressly written herein. Every minimum numerical limitation given throughout this specification
15 will include every higher numerical limitation, as if such higher numerical limitations were expressly written herein. Every numerical range given throughout this specification will include every narrower numerical range that falls within such broader numerical range, as if such narrower numerical ranges were all expressly written herein.

CLAIMS

What is claimed is:

1. A deodorant stick comprising:
 - a. at least one antimicrobial;
 - b. a primary structurant with a melting point of at least about 50°C; and
 - c. less than 8% of secondary structurants having a melting point at least about 60°C;said stick being free of an aluminum salt; and
said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.
2. The deodorant stick of claim 1, wherein the antimicrobial is selected from the group consisting of baking soda, magnesium hydroxide, hexamidine, magnesium carbonate, zinc carbonate, thymol, magnesium hydroxide & magnesium carbonate hydroxide, sodium carbonate, magnesium carbonate hydroxide, partially carbonated magnesium hydroxide, calcium carbonate, polyvinyl formate, salicylic acid, niacinamide, cinnamon essential oil, cinnamon bark essential oil, cinnamic aldehyde and combinations thereof.
3. The deodorant stick of claim 1, wherein the antimicrobial is a powder with a water solubility of at most about 90 g/L at 25°C.
4. The deodorant stick of claim 1, wherein the deodorant stick is substantially free of baking soda.
5. The deodorant stick of claim 1, wherein the deodorant stick is substantially free of a synthetic fragrance.
6. The deodorant stick of any claim 1, wherein the deodorant stick is substantially free of silicones.
7. The deodorant stick of claim 1, wherein the deodorant stick comprises from 0% to 5% silicones.

8. The deodorant stick of claim 1, comprising at least about 25% of a liquid triglyceride.
9. The deodorant stick of claim 1, wherein the antimicrobial comprises baking soda.
10. The deodorant stick of claim 1, wherein the antimicrobial comprises magnesium hydroxide.
11. The deodorant stick of claim 1, wherein the stick comprises from about 8% to about 20% of the primary structurant.
12. The deodorant stick of claim 1, wherein the primary structurant has a melting point from about 50°C to 75°C.
13. The deodorant stick of claim 1, comprising less than 5% of secondary structurants having a melting point above 60°C.
14. A method of making the deodorant stick of claim 1, comprising the steps of combining the deodorant components in an open tank system, mixing the components, heating the components, and cooling the components.

ABSTRACT

A deodorant stick comprising: at least about 25% of a liquid triglyceride; at least one antimicrobial; a primary structurant with a melting point of at least about 50°C; and less than 8% of secondary structurants having a melting point of at least about 60°C; said stick being free of an aluminum salt; and said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

☐	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--------------------------	---

Inventor Information:

Inventor 1					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	David	Arthur	STURGIS		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
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Mailing Address of Inventor:

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Address 2					
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Postal Code	45202	Country	US		

Inventor 2					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Lindsey	Michelle	BRITT		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
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Address 2					
City	Cincinnati	State/Province	OH		
Postal Code	45202	Country	US		

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button.

[Add](#)**Correspondence Information:**

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

☐ An Address is being provided for the correspondence information of this application.

Customer Number	27752		
Email Address	carter.ky@pg.com	Add Email	Remove Email

Application Information:

Title of the Invention	DEODORANT COMPOSITIONS		
Attorney Docket Number	15149CC	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)		Suggested Figure for Publication (if any)	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	27752		

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
	Continuation of	16/716542	2019-12-17		
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/716542	Continuation of	16/021965	2018-06-28	10543164	2020-01-28
Prior Application Status	Expired		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
16/021965	Claims benefit of provisional	62/647104	2018-03-23		
Prior Application Status	Expired		Remove		
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
16/021965	Claims benefit of provisional	62/527180	2017-06-30		
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Remove
			Access Code ⁱ (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. ☐ NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.	
--	--

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.			
Applicant 1			
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.			
Clear			
☒ Assignee	☐ Legal Representative under 35 U.S.C. 117	☐ Joint Inventor	
☐ Person to whom the inventor is obligated to assign.		☐ Person who shows sufficient proprietary interest	
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Applicant is an Organization check here. ☒			
Organization Name	The Procter & Gamble Company		
Mailing Address Information For Applicant:			
Address 1	Attention: Chief Patent Counsel		
Address 2	One Procter & Gamble Plaza		
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Country	US	Postal Code	45202
Phone Number	513-983-2114	Fax Number	513-285-3105
Email Address	carter.ky@pg.com		
Additional Applicant Data may be generated within this form by selecting the Add button.			

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	Given Name	Middle Name	Family Name	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		State/Province	
Country ⁱ		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the **INITIAL** filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Kathleen Y. Carter/		Date (YYYY-MM-DD)	2021-03-08
First Name	Kathleen Y.	Last Name	Carter	Registration Number
60583				

Additional Signature may be generated within this form by selecting the Add button.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	15149CC
		Application Number	
Title of Invention	DEODORANT COMPOSITIONS		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	March 8, 2021
First Named Inventor	David Arthur STURGIS
Title	DEODORANT COMPOSITIONS
Art Unit	
Examiner Name	
Attorney Docket Number	15149CC

SIGNATURE of Applicant or Patent Practitioner

Signature	/Kathleen Y. Carter	Date (Optional)	March 8, 2021
Name	Kathleen Y. Carter	Registration Number	60583
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)	The Procter & Gamble Company		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.



*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

27752

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

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OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

The Procter & Gamble Company

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

/Jay A Krebs/

Date (Optional)

Name

Jay A. Krebs

Title

Director and Assistant Secretary - Global IP Services, The Procter & Gamble Company

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

DEODORANT COMPOSITIONS

As the below named inventor, I hereby declare that:

This declaration
is directed to:

☐

The attached application, or

☒

United States application or PCT international application number 16/021,965

filed on June 28, 2018

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: David Arthur Sturgis

Date (Optional): 7/18/18

Signature: /David Arthur Sturgis/

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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This declaration
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United States application or PCT international application number 16/021,965
filed on June 28, 2018

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

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LEGAL NAME OF INVENTOR

Inventor: Lindsey Michelle Britt

Date (Optional): 07/18/2018

Signature: /Lindsey Michelle Britt/

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:				
Filing Date:				
Title of Invention:	DEODORANT COMPOSITIONS			
First Named Inventor/Applicant Name:	David Arthur STRUGIS			
Filer:	Kathleen Yates Carter/Linda Wilson			
Attorney Docket Number:	15149CC			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	320	320
UTILITY SEARCH FEE	1111	1	700	700
UTILITY EXAMINATION FEE	1311	1	800	800
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1820

Electronic Acknowledgement Receipt

EFS ID:	42111370
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	Kathleen Yates Carter/Linda Wilson
Filer Authorized By:	Kathleen Yates Carter
Attorney Docket Number:	15149CC
Receipt Date:	08-MAR-2021
Filing Date:	
Time Stamp:	11:18:03
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 1820
RAM confirmation Number	E202138B18243458
Deposit Account	162480
Authorized User	Linda Wilson

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

P&G Ex. 2001

Page 80

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	15149CC-TransmittalSheet-AsFiled-3-8-21.pdf	145928	no	1
			2d4343f6fda72f70abaabb39034e460b2b36c5b3		

Warnings:

Information:

2		15149CC-Application.pdf	1155414	yes	23
			e2f6f06c9bf4e770247d2ecf3a658bc710447c5d		

Multipart Description/PDF files in .zip description

	Document Description	Start	End
	Specification	1	20
	Claims	21	22
	Abstract	23	23

Warnings:

Information:

3	Application Data Sheet	15149CC-ADS-AsFiled-3-8-21.pdf	112599	no	8
			7863753ee427751c1adfeb27b5f9ebc8330b8d0a		

Warnings:

This is not an USPTO supplied ADS fillable form

Information:

4	Power of Attorney	15149CC-PowerOfAttorneyAndTransmittal-AsFiled-3-8-21.pdf	129579	no	2
			c051d6a0bf4164eaf6f26ec8e044e1cb163b1dd1		

Warnings:

Information:

5	Oath or Declaration filed	15149-DeclarationSigned-ALL.pdf	545945 b26dd67b4cbc320c7a2f2694ed5bc8c5dea903da	no	2
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	34959 a8d12949923fa1bfaa0ff3648cd63e72318645d	no	2
Warnings:					
Information:					
7	EFS Acknowledgment Receipt	efilingAck.pdf	63149 8c86af2b5e3a184e8c696bc5808d83b32f660de4	no	3
Warnings:					
Information:					
Total Files Size (in bytes):			2187573		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 17/194,437			
APPLICATION AS FILED - PART I									
(Column 1)		(Column 2)		SMALL ENTITY		OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	320		
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	700		
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	800		
TOTAL CLAIMS (37 CFR 1.16(j))	14	minus 20 = *			OR	x 100 =	0.00		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1	minus 3 = *				x 480 =	0.00		
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00		
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00		
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL		TOTAL	1820		
APPLICATION AS AMENDED - PART II									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OTHER THAN SMALL ENTITY	
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)	RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=	OR	x
	Application Size Fee (37 CFR 1.16(s))							OR	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR	
TOTAL ADD'L FEE								OR	TOTAL ADD'L FEE
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)	RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=	OR	x
	Application Size Fee (37 CFR 1.16(s))							OR	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR	
TOTAL ADD'L FEE								OR	TOTAL ADD'L FEE
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.									



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
17/194,437	03/08/2021	1616	1820	15149CC	14	1

CONFIRMATION NO. 1043

FILING RECEIPT



0000000124126727

27752
THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

Date Mailed: 03/17/2021

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

David Arthur STRUGIS, Montgomery, OH;
Lindsey Michelle BRITT, West Chester, OH;

Applicant(s)

The Procter & Gamble Company, Cincinnati, OH;

Power of Attorney: The patent practitioners associated with Customer Number 27752

Domestic Priority data as claimed by applicant

This application is a CON of 16/716,542 12/17/2019
which is a CON of 16/021,965 06/28/2018 PAT 10543164
which claims benefit of 62/647,104 03/23/2018
and claims benefit of 62/527,180 06/30/2017

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 03/16/2021

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/194,437**

Projected Publication Date: 06/24/2021

Non-Publication Request: No

Early Publication Request: No
Title

DEODORANT COMPOSITIONS

Preliminary Class

424

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/194,437	03/08/2021	David Arthur STRUGIS	15149CC

CONFIRMATION NO. 1043

PUBLICATION NOTICE



OC000000126696303

27752
THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

Title:DEODORANT COMPOSITIONS

Publication No.US-2021-0196617-A1

Publication Date:07/01/2021

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/PublicPair>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437
	Filing Date		2021-03-08
	First Named Inventor	STURGIS David Arthur (STURG/DA)	
	Art Unit	1615	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	--15149CC-US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	3792068	A	1974-02-12	Luedders, W et al.	
	2	3887692	A	1975-06-03	Gilman, William S	
	3	3904741	A	1975-09-09	Jones, John L et al.	
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

9	5298640	A	1994-03-29	Callaghan, David T et al.	Equiv. to GB2144992
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**INFORMATION DISCLOSURE
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Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
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Application Number	17194437
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First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

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If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20010046479	A1	2001-11-29	Landa, Andrew Sjaak et al.	
	2	20020086039	A1	2002-07-04	Lee, Sean et al.	
	3	20030235546	A1	2003-12-25	Mattai, Jairajh et al.	
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	5	20070003499	A1	2007-01-04	Shen, Yanfei et al.	
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	7	20110076309	A1	2011-03-31	Hogan, John P et al.	

**INFORMATION DISCLOSURE
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Application Number	17194437
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First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

8	20110196786	A1	2017-07-13	Avon Products, Inc.	
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**INFORMATION DISCLOSURE
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Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

19	20190276389	A1	2019-09-12	Wos, John August et al.	
20	20210100735	A1	2021-04-08	Sturgis, David Arthur et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	1347950	GB	A	1974-02-27	BRISTOL MYERS CO		☐
	2	1487812	GB	A	1977-10-05	PROCTER & GAMBLE CO	Equiv. to BE825146 A	☐
	3	2048229	GB	A	1980-12-10	Gillette		☐
	4	2008110999	JP	A	2008-05-15	MANDOM CORP		☒
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If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

1	All Office Actions; U.S. Patent Application Ser. No 16/021,965 (Attorney Docket No. 15149); SEE PAIR	☐
2	All Office Actions; U.S. Patent Application Ser. No. 16/021,877 (Attorney Docket No.14861M); SEE PAIR	☐
3	All Office Actions; U.S. Patent Application Ser. No. 17/124565 (Attorney Docket No.15150C); SEE PAIR	☐
4	All Office Actions; U.S. Patent Application Ser. No. 16/716,540 ((Attorney Docket No.14861MC); SEE PAIR	☐
5	All Office Actions; U.S. Patent Application Ser. No. 16/716,542 (Attorney Docket No.15149C); SEE PAIR	☐
6	All Office Actions; U.S. Patent Application Ser. No. 17/326,381 (Attorney Docket No. 14861MCC); SEE PAIR	☐
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

12	U.S. Unpublished Patent Application Ser. No. 17/326,381 (Attorney Docket No. 14861MCC), filed on May 21, 2021, to David Arthur Sturgis et. al. (See PAIR)	☐
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If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STRUGIS
Filed : March 08, 2021
Art Unit : 1615
Examiner : Not Yet Assigned
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, it is respectfully requested that the document(s) cited in this submission be carefully considered by the Examiner and made of record in this case. As provided in §1.97(g), no representation is made or intended that a thorough art search was made. As provided in 37 C.F.R. §1.97(h), this Information Disclosure Statement does not constitute an admission of any kind, and specifically is not an admission that the document(s) cited in this submission is (are), or is (are) considered to be, material to the patentability of the above-identified patent application, as defined in 37 C.F.R. §1.56(b).

This Information Disclosure Statement is being submitted under 37 C.F.R. §1.97(b)(3). An Office Action on the merits in the present application has not yet been received. Therefore, no fee is believed to be due. However, in the event that this paper is crossing in the mail with a first Office Action on the merits, authorization is hereby given to charge the required fee pursuant to 37 C.F.R. §1.97(c) and 37 C.F.R. §1.17(p) to Deposit Account No. 16-2480 in the name of The Procter & Gamble Company.

Additional Items to be Noted by the Examiner

In accordance with 37 C.F.R. §1.98(a)(2), one or more foreign patent documents and/or non-patent literature is provided.

In addition to the cited references that were previously considered in prior application U.S. Patent Application Serial No. 16/021965, filed June 28, 2018, additional references are cited in this Statement. Priority is claimed to said application under 35 U.S.C. §120. Accordingly, copies of previously considered references are not provided with this Statement, pursuant to 37 C.F.R. §1.98(d). The scope of the claims of the present application may be different in scope from any prior applications, including any previous disclaimers. Thus, the Patent Office is reminded that the art cited in any prior application may need to be revisited for the examination of the claims in the present application.

The International Search Report from the PCT/EPO is listed herein and a copy is provided.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

/Kathleen Y. Carter/

Kathleen Y. Carter
Registration No. 60,583
(513) 983-2114

Date: July 29, 2021
Customer No. 27752

Electronic Acknowledgement Receipt

EFS ID:	43408551
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	David Michael Weirich/Aanchal Wadhwa
Filer Authorized By:	David Michael Weirich
Attorney Docket Number:	15149CC
Receipt Date:	03-AUG-2021
Filing Date:	08-MAR-2021
Time Stamp:	02:03:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	15149CC- IDSListofReferences-7-22-21. pdf	1057471 f2cd35a7506f9c9bd8e476d2de4687b5156968e3	no	8

Warnings:

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Page 99

Information:					
This is not an USPTO supplied IDS fillable form					
2	Transmittal Letter	15149CC-IDSLetter-7-22-21.pdf	78532	no	2
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Information:					
Total Files Size (in bytes):			1136003		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437	
	Filing Date		2021-03-08	
	First Named Inventor	STURGIS David Arthur (STURG/DA)		
	Art Unit			
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number		--15149CC-US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20110076310	A1	2011-03-31	Fan, Aixing et al.	
	2	20140271517	A1	2014-09-18	Phinney, Robin et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							☐

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NON-PATENT LITERATURE DOCUMENTS								
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437
	Filing Date		2021-03-08
	First Named Inventor	STURGIS David Arthur (STURG/DA)	
	Art Unit		
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number		--15149CC-US

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	ANONYMOUS: "Tea Tree Natural Deodorant", GNPD, MINTEL, 1 June 2016 (2016-06-01), XP002768345, the whole document, 3 pgs.	☐

If you wish to add additional non-patent literature document citation information please click the Add button

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Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

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The information provided by you in this form will be subject to the following routine uses:

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STRUGIS
Filed : March 08, 2021
Art Unit : Not Yet Assigned
Examiner : Not Yet assigned
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

INFORMATION DISCLOSURE STATEMENT

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Appl. No. 17/194,437
Docket No. 15149CC
Customer No. 27752

2

Additional Items to be Noted by the Examiner

In accordance with 37 C.F.R. §1.98(a)(2), one or more foreign patent documents and/or non-patent literature is provided.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

/Kathleen Y. Carter/

Kathleen Y. Carter
Registration No. 60,583
(513) 983-6431

Date: September 27, 2021
Customer No. 27752

Electronic Acknowledgement Receipt

EFS ID:	43910485
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	David Michael Weirich/Aanchal Wadhwa
Filer Authorized By:	David Michael Weirich
Attorney Docket Number:	15149CC
Receipt Date:	30-SEP-2021
Filing Date:	08-MAR-2021
Time Stamp:	11:14:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	15149CC- IDSListofReferences-9-20-21. pdf	675815 472c6e2a3a2060ccb25a9330d6ef0008cef3a7af	no	3

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Information:					
3	Non Patent Literature	Tea_Tree_Natural_Deodorant.pdf	994040 d2eb57bc0ea6fdefbb1230706fa3baad0a1d95a4	no	3
Warnings:					
Information:					
Total Files Size (in bytes):			1746162		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437	
	Filing Date		2021-03-08	
	First Named Inventor	STURGIS David Arthur (STURG/DA)		
	Art Unit			
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number		--15149CC-US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	4659560	A	1987-04-21	Bews, Brian et al.	

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U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

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FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							☐

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NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		17194437
Filing Date		2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)	
Art Unit		
Examiner Name	Not Yet Assigned	
Attorney Docket Number		--15149CC-US

	1		☐
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If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STURGIS et al.
Filed : March 08, 2021
Art Unit :
Examiner : Not Yet Assigned
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, it is respectfully requested that the document(s) cited in this submission be carefully considered by the Examiner and made of record in this case. As provided in §1.97(g), no representation is made or intended that a thorough art search was made. As provided in 37 C.F.R. §1.97(h), this Information Disclosure Statement does not constitute an admission of any kind, and specifically is not an admission that the document(s) cited in this submission is (are), or is (are) considered to be, material to the patentability of the above-identified patent application, as defined in 37 C.F.R. §1.56(b).

This Information Disclosure Statement is being submitted under 37 C.F.R. §1.97(b)(3). An Office Action on the merits in the present application has not yet been received. Therefore, no fee is believed to be due. However, in the event that this paper is crossing in the mail with a first Office Action on the merits, authorization is hereby given to charge the required fee pursuant to 37 C.F.R. §1.97(c) and 37 C.F.R. §1.17(p) to Deposit Account No. 16-2480 in the name of The Procter & Gamble Company.

Appl. No. 17/194,437
Docket No. 15149CC
Customer No. 27752

2

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

/Kathleen Y. Carter/

Signature

Kathleen Y. Carter

Registration No. 60,583

(513) 983-6431

Date: May 12, 2022
Customer No. 27752

Electronic Acknowledgement Receipt

EFS ID:	45740022
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	David Michael Weirich/Neeraj Ahuja
Filer Authorized By:	David Michael Weirich
Attorney Docket Number:	15149CC
Receipt Date:	18-MAY-2022
Filing Date:	08-MAR-2021
Time Stamp:	03:08:19
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	15149CC_ListofReferences_04_22_22.pdf	602686 1619bb56146e177d6033d21fb910ad747db123d2	no	3

Warnings:

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Information:					
This is not an USPTO supplied IDS fillable form					
2	Transmittal Letter	15149CC_IDS_Letter_04_22_22.pdf	266502 1f86b31192fcbc590623139de55abec7bf981192	no	2
Warnings:					
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			Total Files Size (in bytes):	869188	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/194,437	03/08/2021	David Arthur STRUGIS	15149CC	1043
27752	7590	05/31/2022	EXAMINER	
THE PROCTER & GAMBLE COMPANY			MERCIER, MELISSA S	
GLOBAL IP SERVICES			ART UNIT	
CENTRAL BUILDING, C9			PAPER NUMBER	
ONE PROCTER AND GAMBLE PLAZA			1615	
CINCINNATI, OH 45202			NOTIFICATION DATE	
			DELIVERY MODE	
			05/31/2022	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

centraldocket.im@pg.com
mayer.jk@pg.com
pair_pg@firsttofile.com

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Information Disclosure Statement

Receipt of the Information Disclosure Statements filed on August 3, 2021; September 30, 2021; and May 18, 2022 is acknowledged. Signed copies are attached to this office action.

In the IDS dated August 3, 2021 US 2011/01986786 drawn to determining trustworthiness and familiarity of users of an electronic billing and payment system and NPL documents 1-7 and 11-12 have not been considered.

Claim Objections

Claim 2 is objected to because of the following informalities: salicylic is spelled incorrectly in line 5. Appropriate correction is required.

Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art is that of Lee et al. (US 2002/0086039). Lee discloses cosmetic compositions, for example antiperspirant and deodorant products that can be in the form of a stick. Lee additionally discloses components such as PPG-14 butyl ether, baking soda, dimethicone, isopropyl myristate, mineral oil, octyl dodecanol and stearyl alcohol can be included in said sticks. Lee,

however, discloses active ingredients such as aluminum zirconium tetrachlorohydrate gly or aluminum chlorohydrate are included.

Additional prior art includes Oblong et al. (US 2007/0203240). Oblong discloses personal care compositions comprising niacinamide, stearyl alcohol, dimethicone, and petrolatum. However, the composition is a moisturizing skin cream/lotion. Examples of solid antiperspirants comprise aluminum zirconium tetrachlorohydrate glycinate.

Scavone (US 6,485,717) and (US 7,033,579) discloses anhydrous antiperspirant and deodorant composition comprising stearyl alcohol, niacinamide, and dimethicone, however, Scavone also requires the use of aluminum zirconium tetrachlorohydrate glycinate.

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art is that of Osipow et al. (US 5,433,943). The teachings of Osipow are discussed below. Osipow does not disclose the use of magnesium hydroxide is not disclosed, nor is there any teaching within the art to indicate that magnesium hydroxide can be used in deodorant stick compositions.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.

Claims 1-7 and 11-14 are rejected under 35 U.S.C. 102(a)(1) as being anticipated by Osipow et al. (US 5,433,943).

Osipow discloses a deodorant composition.

Example 1 discloses a deodorant stick composition comprising:

- *Calcium carbonate (antimicrobial);

- *Wax blend-stearyl alcohol has a melting point of 59.4-59.8 °Celsius, which meets the limitation of a primary structurants in the instant claim.

- *Example 1 does not disclose a secondary structurants greater than 8% having a melting point of at least 60 °Celsius.

- *Example 1 additionally does not disclose the use of an aluminum salt.

Regarding claim 2, as noted above, Example 1 discloses the use of calcium carbonate.

Regarding claim 3, calcium carbonate has a water solubility of 15 mg/L, which meets the limitation of at most about 90 g/L at 25 °Celsius.

Regarding claim 4, Example 1 is not disclosed as containing baking soda.

Regarding claim 5, Example 1 discloses 0.5% fragrance. As noted in the instant specification, “substantially free of” is defined as “about 2% or less” (page 3).

Regarding claim 6-7, Example 1 is not disclosed as containing a silicone.

Regarding claim 11, stearyl alcohol is present in the amount of 7.3%, it is the position of the Examiner that 7.3% is “about” 8%.

Regarding claim 12, as note above, stearyl alcohol has a melting point of 59.4-59.8 °Celsius, which meets the limitation of a primary structurants in the instant claim.

Regarding claim 13, as noted above, Example 1 does not disclose a secondary structurants greater than 5% having a melting point of at least 60 °Celsius.

Regarding claim 14, the stick formulation is prepared by melting the waxes, mixing until homogenous, and pouring into chilled containers while being kept cold until the sticks set (column 4, lines 44-60).

Since Osipow discloses the same composition as recited in the instant claims, it would necessarily also possess the same properties as recited, absent a showing of evidence to the contrary.

Osipow, therefore, anticipates the rejected claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims the examiner presumes that the subject matter of the various claims was commonly owned as of the effective filing date of the claimed invention(s) absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and effective filing dates of each claim that was not commonly owned as of the effective filing date of the later invention in order for the examiner to consider the applicability of 35 U.S.C. 102(b)(2)(C) for any potential 35 U.S.C. 102(a)(2) prior art against the later invention.

Claims 1-7, 9, 11-14 are rejected under 35 U.S.C. 103 as being unpatentable over Osipow et al. (US 5,433,943).

The teachings of Osipow are discussed above.

Osipow does not exemplify the use of baking soda or sodium bicarbonate.

Osipow discloses in deodorant compositions may contain sodium bicarbonate as a deodorant ingredient (column 4, lines 6-7).

It would have been obvious to one of ordinary skill in the art prior to the effective filing date of the invention to have used any of the recited deodorant ingredients disclosed since they are disclosed as being functional equivalents to each other by Osipow. Therefore, the skilled artisan would expect the deodorant stick to skill function as claimed.

Double Patenting

A rejection based on double patenting of the “same invention” type finds its support in the language of 35 U.S.C. 101 which states that “whoever invents or discovers any new and useful process... may obtain a patent therefor...” (Emphasis added). Thus, the term “same invention,” in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d

438, 164 USPQ 619 (CCPA 1970); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the claims that are directed to the same invention so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 8 is directed to the same invention as that of claim 1 of commonly assigned 10,543,164. Under 35 U.S.C. 101, more than one patent may not be issued on the same invention.

The USPTO may not institute a derivation proceeding in the absence of a timely filed petition. The U.S. Patent and Trademark Office normally will not institute a derivation proceeding between applications or a patent and an application having common ownership (see 37 CFR 42.411). The applicant should amend or cancel claims such that the reference and the instant application no longer contain claims directed to the same invention.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46

USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

Claims 1-14 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,966,915. Although the claims at issue are not identical, they are not patentably distinct from each other because the

instant and patented claims are drawn to deodorant sticks comprising an antimicrobial agent, a primary structurants having a melting point of at least 50 ° Celsius, and being free of an aluminum salt in the independent claim while additional limitations including secondary structurants, and liquid triglyceride components are recited in dependent claims.

Claims 1-7 and 9-14 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,543,164. Although the claims at issue are not identical, they are not patentably distinct from each other because the instant and patented claims are drawn to deodorant sticks comprising an antimicrobial agent, a primary structurants having a melting point of at least 50 ° Celsius, and being free of an aluminum salt in the independent claim while additional limitations including secondary structurants, and liquid triglyceride components are recited in dependent claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA S MERCIER whose telephone number is (571)272-9039. The examiner can normally be reached M-F 5:30 am to 4 pm EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Wax can be reached on 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MELISSA S MERCIER/
Primary Examiner, Art Unit 1615

<i>Notice of References Cited</i>	Application/Control No. 17/194,437		Applicant(s)/Patent Under Reexamination STRUGIS et al.	
	Examiner MELISSA S MERCIER		Art Unit 1615	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-5433943-A	07-1995	Osipow; Lloyd I.	A61K8/65	424/47
	B					
	C					
	D					
	E					
	F					
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	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Search Notes</i> 	Application/Control No. 17/194,437	Applicant(s)/Patent Under Reexamination STRUGIS et al.
	Examiner MELISSA S MERCIER	Art Unit 1615

CPC - Searched*		
Symbol	Date	Examiner
no classified search performed	05/25/2022	MMercier

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
east- see attached	05/25/2022	MMercier
google-see attached	05/25/2022	MMercier

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/MELISSA S MERCIER/ Primary Examiner, Art Unit 1615	
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Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437
	Filing Date		2021-03-08
	First Named Inventor	STURGIS David Arthur (STURG/DA)	
	Art Unit	1615	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	--15149CC-US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	3792068	A	1974-02-12	Luedders, W et al.	
	2	3887692	A	1975-06-03	Gilman, William S	
	3	3904741	A	1975-09-09	Jones, John L et al.	
	4	4049792	A	1977-09-20	Elsnau, Walter Hugh	
	5	4120948	A	1978-10-17	Shelton, David Lee	
	6	4359456	A	1982-11-16	Gosling, Keith et al.	
	7	4906454	A	1990-03-06	Melanson, Jr John D et al.	
	8	5019375	A	1991-05-28	Tanner, Paul R et al.	

/MELISSA S MERCIER/

05/25/2022

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

9	5298640	A	1994-03-29	Callaghan, David T et al.	Equiv. to GB2144992
10	5429816	A	1995-07-04	Hofrichter, Brian D et al.	
11	5675013	A	1997-10-07	Hani, Rahim et al.	
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13	5891424	A	1999-04-06	Bretzier, Eric John et al.	
14	5972319	A	1999-10-26	Linn, Elizabeth et al.	
15	5976514	A	1999-11-02	Guskey, Gerald John et al.	
16	6177066	B1	2001-01-23	Pataut, Francoise et al.	
17	6485717	B1	2002-11-26	Scavone, Timothy Alan et al.	
18	6503944	B1	2003-01-07	Chanchani, Niyati	
19	6624126	B1	2003-09-23	Kasuga, Kennichi et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

20	7033576	B2	2006-04-25	Chevallier, Yvonick et al.	
21	7033579	B1	2006-04-25	Scavone, Timothy Alan	
22	7425321	B2	2008-09-16	Lemoine, Cyril et al.	
23	8460720	B2	2013-06-11	Bergeron, Chantal et al.	
24	8574559	B2	2013-11-05	Banowski, Bernhard et al.	
25	9468596	B2	2016-10-18	Eizen, Micha et al.	
26	9517193	B2	2016-12-13	Fares, Hani M. et al.	
27	9949920	B2	2018-04-24	Hakim, Noha N.	
28	10543164	B2	2020-01-28	Sturgis, David Arthur et al.	
29	10555884	B2	2020-02-11	Sturgis, David Arthur et al.	
30	10905647	B2	2021-02-02	Sturgis, David Arthur et al.	

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31	10966915	B2	2021-04-06	Sturgis, David Arthur et al.	
32	11045408	B2	2021-06-29	Sturgis, David Arthur et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20010046479	A1	2001-11-29	Landa, Andrew Sjaak et al.	
	2	20020086039	A1	2002-07-04	Lee, Sean et al.	
	3	20030235546	A1	2003-12-25	Mattai, Jairajh et al.	
	4	20050281767	A1	2005-12-22	Walling, David W et al.	
	5	20070003499	A1	2007-01-04	Shen, Yanfei et al.	
	6	20070203240	A1	2007-08-30	Oblong, John Erich et al.	
	7	20110076309	A1	2011-03-31	Hogan, John P et al.	

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05/25/2022

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Attorney Docket Number	--15149CC-US

	8	20110196786	A1	2017-07-13	Avon Products, Inc.	
	9	20130045907	A1	2013-02-21	Lanzalaco, Anthony Charles et al.	
	10	20130045910	A1	2013-02-21	Miracle, Gregory Scot et al.	
	11	20140154189	A1	2014-06-05	Polson, George et al.	
	12	20150196477	A1	2015-07-16	Stark, Cynthia Marie et al.	
	13	20160074300	A1	2016-03-17	Salvador, Charlie Reyes et al.	Equiv. to WO2014139449
	14	20160235661	A1	2016-08-18	Changoer, Lekhram et al.	
	15	20160326091	A1	2016-11-10	Rudolph, Thomas et al.	
	16	20170172873	A1	2017-06-22	Banowski, Bernhard et al.	
	17	20170252288	A1	2017-09-07	Lesniak, Ewelina et al.	
	18	20190000730	A1	2019-01-03	Abueihaiga, Mohammed et al.	

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Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

19	20190276389	A1	2019-09-12	Wos, John August et al.	
20	20210100735	A1	2021-04-08	Sturgis, David Arthur et al.	

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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	1347950	GB	A	1974-02-27	BRISTOL MYERS CO		☐
	2	1487812	GB	A	1977-10-05	PROCTER & GAMBLE CO	Equiv. to BE825146 A	☐
	3	2048229	GB	A	1980-12-10	Gillette		☐
	4	2008110999	JP	A	2008-05-15	MANDOM CORP		☒
	5	2004089092	WO	A1	2004-10-21	IDEMITSU TECHNOFINE CO., LTD.		☒

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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
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05/25/2022

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Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

1	All Office Actions; U.S. Patent Application Ser. No. 16/021,965 (Attorney Docket No. 15149); SEE PAIR	☐
2	All Office Actions; U.S. Patent Application Ser. No. 16/021,977 (Attorney Docket No. 14861M); SEE PAIR	☐
3	All Office Actions; U.S. Patent Application Ser. No. 17/124565 (Attorney Docket No. 15150C); SEE PAIR	☐
4	All Office Actions; U.S. Patent Application Ser. No. 16/716,540 (Attorney Docket No. 14861MC); SEE PAIR	☐
5	All Office Actions; U.S. Patent Application Ser. No. 16/746,542 (Attorney Docket No. 15149C); SEE PAIR	☐
6	All Office Actions; U.S. Patent Application Ser. No. 17/326,381 (Attorney Docket No. 14861MCC); SEE PAIR	☐
7	All Office Actions; U.S. Patent Application Ser. No. 16/021,931 (Attorney Docket No. 15150); SEE PAIR	☐
8	15149 PCT Search Report and Written Opinion PCT/US2019/022660; date of mailing 4 June 2019; 14 pages.	☐
9	Kontoghiorghe, George J., "2-Hydroxypyridine-N-Oxides: Effective New Chelators in Iron Mobilisation", Biochimica et Biophysica Acta, Vol. 924, No. 1, April 16, 1987, pp. 13-18.	☐
10	Landa et al., "Iron Sequestration on Skin: A New Route to Improved Deodorancy", International Journal Cosmetic Science, Vol. 25, 2003, pp. 127-135.	☐
11	Nivea Fresh Natural Deodorant, pulled from the internet (www.GNPD.com) 3 pages.	☐

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Attorney Docket Number	--15149CC-US

		U.S. Unpublished Patent Application Ser. No. 17/326,381 (Attorney Docket No. 14861MCC), filed on May 21, 2021, to David Arthur Sturgis et. al. (See PAIR)	☐
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¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Web Search History

date, time	web site	search string
5/25/2022 12:55:17 PM	Google	polydimethylcyclsiloxane
5/25/2022 12:56:03 PM	Google	poly dimethylcyclsiloxane
5/25/2022 12:57:02 PM	Google	DC245
5/25/2022 12:57:14 PM	Google	cyclopentasiloxane
5/25/2022 12:57:31 PM	Google	cyclopentasiloxane melting point
5/25/2022 12:57:56 PM	Google	paraffin wax melting point
5/25/2022 12:58:12 PM	Google	gelatin melting point
5/25/2022 1:26:01 PM	Google	stearyl alcohol melting point
5/25/2022 1:29:43 PM	Google	calcium carbonate
5/25/2022 1:30:07 PM	Google	calcium carbonate water solubility
5/25/2022 1:35:30 PM	Google	silicone veres siloxane
5/25/2022 1:58:07 PM	Google	cetyl alcohol
5/25/2022 1:58:32 PM	Google	cetyl alcohol melting point
5/25/2022 1:59:02 PM	Google	hydrogenated castor oil melting point
5/25/2022 2:00:39 PM	Google	hydrogenated coconut oil melting point
5/25/2022 3:44:05 PM	Google	sodium carbonate
5/25/2022 3:44:20 PM	Google	baking soda
5/25/2022 5:17:28 PM	Google	magnesium hydroxide antimicrobial
5/25/2022 5:19:54 PM	Google	magnesium hydroxide antimicrobial personal care

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437	
	Filing Date		2021-03-08	
	First Named Inventor	STURGIS David Arthur (STURG/DA)		
	Art Unit			
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	--15149CC-US		

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Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20110076310	A1	2011-03-31	Fan, Aixing et al.	
	2	20140271517	A1	2014-09-18	Phinney, Robin et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	17194437
	Filing Date	2021-03-08
	First Named Inventor	STURGIS David Arthur (STURG/DA)
	Art Unit	
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	--15149CC-US

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	ANONYMOUS: "Tea Tree Natural Deodorant", GNP, MINTEL, 1 June 2016 (2016-06-01), XP002768345, the whole document, 3 pgs.	☐

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¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

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EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	55	("4659560" "20110076310" "20140271517" "10543164" "10555884" "10905647" "10966915" "11045408" "20010046479" "20020086039" "20030235546" "20050281767" "20070003499" "20070203240" "20110076309" "20110196786" "20130045907" "20130045910" "20140154189" "20150196477" "20160074300" "20160235661" "20160326091" "20170172873" "20170252288" "20190000730" "20190276389" "20210100735" "3792068" "3887692" "3904741" "4049792" "4120948" "4359456" "4906454" "5019375" "5298640" "5429816" "5675013" "5744146" "5891424" "5972319" "5976514" "6177066" "6485717" "6503944" "6624126" "7033576" "7033579" "7425321" "8460720" "8574559" "9468596" "9517193" "9949920").PN.	US-PGPUB; USPAT	OR	OFF	2022/05/25 14:25
L2	1	"20110196786"	US-PGPUB; USPAT	OR	ON	2022/05/25 14:28
L3	16	deodorant SAME stick AND antimicrobial SAME "baking soda" SAME "magnesium hydroxide" SAME "calcium carbonate"	US-PGPUB; USPAT	OR	ON	2022/05/25 14:44
L4	16	deodorant AND antimicrobial SAME "baking soda" SAME "magnesium hydroxide" SAME "calcium carbonate"	US-PGPUB; USPAT	OR	ON	2022/05/25 15:33
L5	23	deodorant AND antimicrobial SAME "baking soda" SAME "magnesium hydroxide" SAME "calcium carbonate"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:34
L6	25	antimicrobial SAME "baking soda" SAME "magnesium hydroxide" SAME "calcium carbonate"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:34
L7	62	antimicrobial SAME ("sodium bicarbonate" "baking soda") SAME "magnesium hydroxide" SAME "calcium carbonate"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:44

EAST Search History (Prior Art)

L8	6,878	("sodium bicarbonate" "baking soda") SAME "magnesium hydroxide" SAME "calcium carbonate"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:45
L9	26	("sodium bicarbonate" "baking soda") SAME "magnesium hydroxide" SAME "calcium carbonate" SAME deodorant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:45
L10	38	("sodium bicarbonate" "baking soda") SAME "magnesium hydroxide" SAME "calcium carbonate" AND deodorant SAME stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:48
L11	267	("sodium bicarbonate" "baking soda") SAME "calcium carbonate" AND deodorant SAME stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:50
L12	163	"magnesium hydroxide" SAME "calcium carbonate" AND deodorant SAME stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 15:57
L13	4,831	"magnesium hydroxide" SAME "calcium carbonate" AND antimicrobial	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 16:32
L14	229	"magnesium hydroxide" SAME "calcium carbonate" SAME antimicrobial	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2022/05/25 16:32
S1	194	"4049792"	USPAT	OR	OFF	2019/05/30 06:43
S2	117	"ASTM D-1321"	USPAT	OR	OFF	2019/05/30 06:47
S3	117	"ASTM D-1321"	USPAT	OR	ON	2019/05/30 06:47

EAST Search History (Prior Art)

S4	12	"ASTM D-1321" AND antimicrobial	USPAT	OR	ON	2019/05/30 06:50
S5	33	"ASTM D-1321" AND antimicrobial	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/05/30 06:50
S6	10	"ASTM D-1321" AND deodorant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/05/30 08:23
S7	122	"ASTM D-1321" AND hardness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/05/30 08:25
S8	82	"ASTM D-1321" SAME hardness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/05/30 08:26
S9	467	"3792068"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/05/30 08:26
S10	174	"3792068"	USPAT	OR	ON	2019/05/30 08:27
S11	162	"3887692"	USPAT	OR	ON	2019/05/30 08:27
S12	167	"3904741"	USPAT	OR	ON	2019/05/30 08:28
S13	187	"5019375"	USPAT	OR	ON	2019/05/30 08:29
S14	17	"529806"	USPAT	OR	ON	2019/05/30 08:30
S15	144	"5429816"	USPAT	OR	ON	2019/05/30 08:30
S16	54	"5891424"	USPAT	OR	ON	2019/05/30 08:32
S17	65	"5976514"	USPAT	OR	ON	2019/05/30 08:33
S18	18	"4906454"	USPAT	OR	ON	2019/05/30 08:34
S19	41	"5972319"	USPAT	OR	ON	2019/05/30 08:35
S20	20	"6177066"	USPAT	OR	ON	2019/05/30 08:35
S21	1	"8460720"	USPAT	OR	ON	2019/05/30 08:42

EAST Search History (Prior Art)

S22	1	"8574559"	USPAT	OR	ON	2019/05/30 08:44
S23	6	"8672067"	USPAT	OR	ON	2019/05/30 08:45
S24	1	"9468596"	USPAT	OR	ON	2019/05/30 08:50
S25	3	"9949920"	USPAT	OR	ON	2019/05/30 09:04
S26	0	"20030235546"	USPAT	OR	ON	2019/05/30 09:04
S27	1	"20030235546"	US-PGPUB; USPAT	OR	ON	2019/05/30 09:05
S28	1	"20050281767"	US-PGPUB; USPAT	OR	ON	2019/05/30 09:05
S29	1	"20110076309"	US-PGPUB; USPAT	OR	ON	2019/05/30 09:06
S30	1	"20110196786"	US-PGPUB; USPAT	OR	ON	2019/05/30 09:06
S31	1	"20160235661"	US-PGPUB; USPAT	OR	ON	2019/05/30 09:11
S32	1	"20190000730"	US-PGPUB; USPAT	OR	ON	2019/05/30 09:12
S33	978,061	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone)	US-PGPUB; USPAT	OR	ON	2019/05/30 09:18
S34	220,470	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol")	US-PGPUB; USPAT	OR	ON	2019/05/30 12:06

EAST Search History (Prior Art)

S35	224,991	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss)	US-PGPUB; USPAT	OR	ON	2019/05/30 12:10
S36	509,700	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol")	US-PGPUB; USPAT	OR	ON	2019/05/30 12:15

EAST Search History (Prior Art)

S37	215,206	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") AND ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde")	US-PGPUB; USPAT	OR	ON	2019/05/30 12:55
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EAST Search History (Prior Art)

S38	47,436	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") AND ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND (stick hardness)	US-PGPUB; USPAT	OR	ON	2019/05/30 13:18
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EAST Search History (Prior Art)

S39	38,478	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde")	US-PGPUB; USPAT	OR	ON	2019/05/30 13:19
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EAST Search History (Prior Art)

S40	15,506	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde")	USPAT	OR	ON	2019/05/30 13:20
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EAST Search History (Prior Art)

S41	1,327	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND stick	USPAT	OR	ON	2019/05/30 13:29
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EAST Search History (Prior Art)

S42	198	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide") AND stick	USPAT	OR	ON	2019/05/30 13:31
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EAST Search History (Prior Art)

S43	438	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant	USPAT	OR	ON	2019/05/30 13:32
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EAST Search History (Prior Art)

S44	127	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick	USPAT	OR	ON	2019/05/30 13:33
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EAST Search History (Prior Art)

S45	399	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/05/30 14:20
S46	218	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/13 15:50

EAST Search History (Prior Art)

S47	218	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/14 07:07
S48	5	"4005186"	US-PGPUB; USPAT	OR	ON	2019/06/17 14:23
S49	5	"6485717"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/17 19:39
S50	17	"5744146"	US-PGPUB; USPAT	OR	ON	2019/10/07 06:47
S51	1	"9517193"	US-PGPUB; USPAT	OR	ON	2019/10/07 06:55
S52	1	"20170252288"	US-PGPUB; USPAT	OR	ON	2019/10/07 06:57
S53	6	"6231842"	US-PGPUB; USPAT	OR	ON	2020/07/28 13:38
S54	3	"10543164"	US-PGPUB; USPAT	OR	ON	2020/07/28 13:42

EAST Search History (Prior Art)

S55	373	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME (stick solid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/07/30 16:49
S56	0	"2016048425"	US-PGPUB; USPAT	OR	ON	2020/08/19 16:09
S57	10	"2016048425"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/08/19 16:09
S58	8	"5298640"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:23
S59	18	"5744146"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:23
S60	12	"5744146"	USPAT	OR	ON	2020/10/02 15:23
S61	18	"5744146"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:42
S62	17	"6624126"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:44
S63	2	"9517193"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:45
S64	3	"10555884"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:56
S65	1	"20010046479"	US-PGPUB; USPAT	OR	ON	2020/10/02 15:58
S66	1	"20130045907"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:01

EAST Search History (Prior Art)

S67	2	"20130045910"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:03
S68	2	"20140154189"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:04
S69	1	"20150196477"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:04
S70	1	"20160074300"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:05
S71	2	"20160326091"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:07
S72	1	"20170172873"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:07
S73	2	"20170252288"	US-PGPUB; USPAT	OR	ON	2020/10/02 16:11
S74	3	"10470999"	US-PGPUB; USPAT	OR	ON	2020/10/05 07:52
S75	10	"2016048425"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 07:55
S76	3	"20170252288"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 09:55
S77	17	"10555884"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 11:42
S78	244,356	triglyceride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 13:20
S79	39,037	triglyceride AND antimicrobial	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 13:20

EAST Search History (Prior Art)

S80	4,026	triglyceride AND antimicrobial AND deodorant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 13:20
S81	657	triglyceride AND antimicrobial SAME (beryllium magnesium calcium piroctone) AND deodorant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 13:21
S82	418	triglyceride AND antimicrobial SAME (beryllium magnesium calcium piroctone) AND deodorant AND stick	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 13:29
S83	292	triglyceride AND antimicrobial SAME (beryllium magnesium calcium piroctone) AND deodorant AND stick AND fragrance SAME oil	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/05 13:36
S84	14,203	((("THE") near3 ("PROCTER") near3 ("&") near3 ("GAMBLE") near3 ("COMPANY"))). AS,AANM.	USPAT	OR	OFF	2020/10/29 14:33
S85	75	((("STURGIS") near3 ("David"))) OR ((("BRITT") near3 ("Lindsey"))).INV.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2020/10/29 14:33
S86	4	"10966915"	US-PGPUB; USPAT	OR	ON	2022/05/25 11:40
S87	11,025	deodorant AND antimicrobial	US-PGPUB; USPAT	OR	ON	2022/05/25 12:18
S88	1,467	deodorant AND antimicrobial SAME ("baking soda" magnesium hexamidine "zinc carbonate" "sodium carbonate" "calcium carbonate" "polyvinyl formate" salicyclic nianinamide cinnamon)	US-PGPUB; USPAT	OR	ON	2022/05/25 12:20
S89	1,460	deodorant AND antimicrobial SAME ("baking soda" magnesium hexamidine "zinc carbonate" "sodium carbonate" "calcium carbonate" "polyvinyl formate" salicyclic nianinamide cinnamon) AND (structurant suspending gelling viscosity solid thickening wax polymeric polymer clay silica)	US-PGPUB; USPAT	OR	ON	2022/05/25 12:24

EAST Search History (Prior Art)

S90	278	deodorant SAME stick AND antimicrobial SAME ("baking soda" magnesium hexamidine "zinc carbonate" "sodium carbonate" "calcium carbonate" "polyvinyl formate" salicylic nianinamide cinnamon) AND (structurant suspending gelling viscosity solid thickening wax polymeric polymer clay silica)	US-PGPUB; USPAT	OR	ON	2022/05/25 12:49
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Bibliographic Data

Application No: 17/194,437

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☒ No ☐ Met After Allowance

Verified and Acknowledged: /MELISSA S MERCIER/

Examiner's Signature

Initials

Title: DEODORANT COMPOSITIONS

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
03/08/2021	424	1615	15149CC
RULE			

APPLICANTS

The Procter & Gamble Company, Cincinnati, OH,

INVENTORS

David Arthur STRUGIS, Montgomery, OH, UNITED STATES

Lindsey Michelle BRITT, West Chester, OH, UNITED STATES

CONTINUING DATA

This application is a CON of 16716542 12/17/2019 PAT 10966915

16716542 is a CON of 16021965 06/28/2018 PAT 10543164

16021965 has PRO of 62647104 03/23/2018

16021965 has PRO of 62527180 06/30/2017

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

03/16/2021

STATE OR COUNTRY

UNITED STATES

ADDRESS

THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202
UNITED STATES

FILING FEE RECEIVED

\$1,820

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437	
	Filing Date		2021-03-08	
	First Named Inventor	STURGIS David Arthur (STURG/DA)		
	Art Unit			
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number		--15149CC-US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	4659560	A	1987-04-21	Bews, Brian et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵

/MELISSA S MERCIER/

05/25/2022

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	
Examiner Name	Not Yet Assigned
Attorney Docket Number	--15149CC-US

1		☐
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Examiner Signature	/MELISSA S MERCIER/	Date Considered	05/25/2022
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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437
	Filing Date		2021-03-08
	First Named Inventor	STURGIS David Arthur (STURG/DA)	
	Art Unit	1615	
	Examiner Name	MERCIER, MELISSA S	
	Attorney Docket Number	--15149CC-US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	MERCIER, MELISSA S
Attorney Docket Number	--15149CC-US

1	Final Office Action; U.S. Patent Application Ser. No. 16/716540 dated August 24, 2020 (Attorney Docket No. 14861MC); SEE PAIR	☐
2	Non-Final Office Action; U.S. Patent Application Ser. No. 16/021877 dated May 03, 2019 (Attorney Docket No. 14861M); SEE PAIR	☐
3	Non-Final Office Action; U.S. Patent Application Ser. No. 16/021931 dated March 13, 2020 (Attorney Docket No. 15150); SEE PAIR	☐
4	Non-Final Office Action; U.S. Patent Application Ser. No. 16/716540 dated May 11, 2020 (Attorney Docket No. 14861MC); SEE PAIR	☐
5	Non-Final Office Action; U.S. Patent Application Ser. No. 16/716542 dated August 04, 2020 (Attorney Docket No. 15149C); SEE PAIR	☐
6	Non-Final Office Action; U.S. Patent Application Ser. No. 17/124565 dated March 01, 2022 (Attorney Docket No. 15150C); SEE PAIR	☐
7	Notice of Allowance; U.S. Patent Application Ser. No. 16/021877 dated August 22, 2019 (Attorney Docket No. 14861M); SEE PAIR	☐
8	Notice of Allowance; U.S. Patent Application Ser. No. 16/021877 dated November 27, 2019 (Attorney Docket No. 14861M); SEE PAIR	☐
9	Notice of Allowance; U.S. Patent Application Ser. No. 16/021931 dated August 04, 2020 (Attorney Docket No. 15150); SEE PAIR	☐
10	Notice of Allowance; U.S. Patent Application Ser. No. 16/021931 dated October 09, 2020 (Attorney Docket No. 15150); SEE PAIR	☐
11	Notice of Allowance; U.S. Patent Application Ser. No. 16/021965 dated June 24, 2019 (Attorney Docket No. 15149); SEE PAIR	☐

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	MERCIER, MELISSA S
Attorney Docket Number	--15149CC-US

12	Notice of Allowance; U.S. Patent Application Ser. No. 16/021965 dated October 11, 2019 (Attorney Docket No. 15149); SEE PAIR	☐
13	Notice of Allowance; U.S. Patent Application Ser. No. 16/716540 dated February 24, 2021 (Attorney Docket No. 14861MC); SEE PAIR	☐
14	Notice of Allowance; U.S. Patent Application Ser. No. 16/716542 dated December 09, 2020 (Attorney Docket No. 15149C); SEE PAIR	☐
15	Notice of Allowance; U.S. Patent Application Ser. No. 17/124,565 dated June 20, 2022 (Attorney Docket No. 15150C); SEE PAIR	☐

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STRUGIS, et al.
Filed : 03-08-2021
Art Unit : 1615
Examiner : MERCIER, MELISSA S
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, it is respectfully requested that the document(s) cited in this submission be carefully considered by the Examiner and made of record in this case. As provided in §1.97(g), no representation is made or intended that a thorough art search was made. As provided in 37 C.F.R. §1.97(h), this Information Disclosure Statement does not constitute an admission of any kind, and specifically is not an admission that the document(s) cited in this submission is (are), or is (are) considered to be, material to the patentability of the above-identified patent application, as defined in 37 C.F.R. §1.56(b).

This Information Disclosure Statement is being submitted under 37 C.F.R. §1.97(c). I hereby elect to pay the fee set forth in 37 C.F.R. §1.17(p). Authorization is hereby given to charge the fee set forth in 37 C.F.R. §1.17(p) to Deposit Account Number 16-2480 in the name of The Procter & Gamble Company.

Appl. No. 17/194,437
Docket No. 15149CC
Customer No. 27752

2

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

/Kathleen Y. Carter/

Signature

Kathleen Y. CARTER

Registration No. 60,583

(513) 983-6431

Date: July 18, 2022
Customer No. 27752

Electronic Patent Application Fee Transmittal

Application Number:	17194437			
Filing Date:	08-Mar-2021			
Title of Invention:	DEODORANT COMPOSITIONS			
First Named Inventor/Applicant Name:	David Arthur STRUGIS			
Filer:	Kathleen Yates Carter/Kanika Arora			
Attorney Docket Number:	15149CC			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
Total in USD (\$)				260

Electronic Acknowledgement Receipt

EFS ID:	46247778
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	Kathleen Yates Carter/Kanika Arora
Filer Authorized By:	Kathleen Yates Carter
Attorney Docket Number:	15149CC
Receipt Date:	22-JUL-2022
Filing Date:	08-MAR-2021
Time Stamp:	07:21:28
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$260
RAM confirmation Number	E20227L822271791
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	15149CC-US_ListofReferences_06-24-2022.pdf	786241	no	4
			6a37316873a23f67e679d183b006d6fea6583cd8		
Warnings:					
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2	Transmittal Letter	15149CC-US_IDSLetter_06-24-2022.pdf	205801	no	2
			94255eb8a1fc221666a2cc5084b20daae4a5a7fe		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	38003	no	2
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STRUGIS
Filed : March 08, 2021
Art Unit : 1615
Examiner : Melissa S Mercier
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

AMENDMENT AFTER 1ST OFFICE ACTION UNDER 37 C.F.R. § 1.111(c)

INTRODUCTORY REMARKS

The Director is hereby authorized to charge all required fees (including any extension of time fees) and to credit any overpayments in this and any concurrent or future correspondence to Deposit Account No. 16-2480.

In response to the Office Action of May 31, 2022, please consider the following remarks and reconsider the application.

Amendments to the Claims begin on page two of this paper.

Remarks begin on page four of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of the claims in the application.

What is claimed is:

1. (Currently Amended) A deodorant stick comprising:
 - a. at least one antimicrobial comprising magnesium hydroxide; and
 - b. a primary structurant with a melting point of at least about 50°C; and
 - c. ~~less than 8% of secondary structurants having a melting point at least about 60°C;~~said stick being free of an aluminum salt; and
said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.
2. (Cancelled)
3. (Original) The deodorant stick of claim 1, wherein the antimicrobial is a powder with a water solubility of at most about 90 g/L at 25°C.
4. (Original) The deodorant stick of claim 1, wherein the deodorant stick is substantially free of baking soda.
5. (Original) The deodorant stick of claim 1, wherein the deodorant stick is substantially free of a synthetic fragrance.
6. (Original) The deodorant stick of any claim 1, wherein the deodorant stick is substantially free of silicones.

7. (Original) The deodorant stick of claim 1, wherein the deodorant stick comprises from 0% to 5% silicones.
8. (Original) The deodorant stick of claim 1, comprising at least about 25% of a liquid triglyceride.
9. (Currently Amended) The deodorant stick of claim 1, ~~wherein~~ further comprising an additional the antimicrobial comprisinges baking soda.
10. (Cancelled)
11. (Original) The deodorant stick of claim 1, wherein the stick comprises from about 8% to about 20% of the primary structurant.
12. (Original) The deodorant stick of claim 1, wherein the primary structurant has a melting point from about 50°C to 75°C.
13. (Original) The deodorant stick of claim 1, comprising less than 5% of secondary structurants having a melting point above 60°C.
14. (Original) A method of making the deodorant stick of claim 1, comprising the steps of combining the deodorant components in an open tank system, mixing the components, heating the components, and cooling the components.
15. (New) The deodorant stick of claim 1, further comprising less than 8% of secondary structurants having a melting point at least about 60°C.
16. (New) The deodorant stick of claim 1, wherein the primary structurant is stearyl alcohol.
17. (New) The deodorant stick of claim 1, further comprising shea butter.
18. (New) The deodorant stick of claim 1, further comprising tapioca starch.

Appl. No. 17/194437
Docket No. 15149CC
Reply to Office Action mailed on May 31, 2022
Response filed July 26, 2022
Customer No. 27752

REMARKS

Claim Status

Claims 1-14 are pending in the present application. No additional claims fee is believed to be due.

Claim 1 is amended to state that the deodorant stick comprises an antimicrobial comprising magnesium hydroxide and to remove the limitation regarding secondary structurants. Claim 9 is amended and new claims 15-18 are added. Claim 2 and 10 are cancelled.

Applicants submit that these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Claim Objections

Claims 2, 8 and 10 are objected to. Claims 2 and 10 are now cancelled, rendering the objections moot. Due to amendments, Applicants respectfully request that the objection to Claim 8 be withdrawn.

Rejection Under 35 U.S.C. § 102(a)(1) (AIA) Over Osipow et al. (US 5,433,943).

Claims 1-7 and 11-14 are rejected under 35 U.S.C. § 102(a)(1) (AIA) as being anticipated by Osipow et al.

Rejection Under 35 U.S.C. § 103 (AIA) Over Osipow et al.

Claims 1-7, 9, and 11-14 are rejected under 35 U.S.C. § 103 (AIA) as being unpatentable over Osipow et al.

Applicants have amended Claim 1 to state that the deodorant stick comprises an antimicrobial comprising magnesium hydroxide and to remove the limitation regarding secondary structurants. As noted in the Office Action, Osipow does not disclose or teach

Appl. No. 17/194437
Docket No. 15149CC
Reply to Office Action mailed on May 31, 2022
Response filed July 26, 2022
Customer No. 27752

the use of magnesium hydroxide in deodorant stick compositions. Thus, Osipow does not anticipate the present invention, nor make it obvious. Applicants respectfully request that the rejections be withdrawn.

Non-Statutory Double-Patenting Rejection

Claims 1-14 are rejected on the ground of non-statutory obviousness-type double patenting over claims 1-15 of U.S. Patent No. 10,966,915.

Claims 1-7 and 9-14 are rejected on the ground of non-statutory obviousness-type double patenting over claims 1-15 of U.S. Patent No. 10,543,164.

Applicants are submitting a terminal disclaimer over U.S. Patents 10,966,915 and 10,543,164 and respectfully request that the rejections be withdrawn.

Conclusion

This response represents an earnest effort to place the present application in proper form and to distinguish the invention as claimed from the applied references. In view of the foregoing, the Applicant respectfully requests the Examiner to reconsider this application, and allow the pending claims.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

By /Kathleen Y. Carter/

Signature

Kathleen Y. Carter

Date: July 26, 2022

Registration No. 60583

Customer No. 27752

(513) 983-2114

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STRUGIS
Filed : March 08, 2021
Art Unit : 1615
Examiner : Melissa S Mercier
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING
REJECTION OVER A PRIOR PATENT

The applicant, The Procter & Gamble Company, owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior Patent No. 10,966,915 (P&G Case No. 15149C) and Patent No. 10,543,164 (P&G Case No. 15149) as the term of said prior patent is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, as the term of said prior patent is presently shortened by any terminal disclaimer, in the event that said prior patent later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. §1.321, has all claims cancelled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Appl. No. 17/194437
Docket No. 15149CC
Paper dated July 26, 2022
Reply to Office Action mailed on May 31, 2022

Authorization is given to charge Deposit Account No. 16-2480 for the fee required under 37 C.F.R. §1.20 (d) for submission of this Terminal Disclaimer.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

The undersigned is an attorney or agent of record.

Respectfully Submitted,

THE PROCTER & GAMBLE COMPANY

By /Kathleen Y. Carter/
Kathleen Y. Carter
Registration No. 60583
(513) 983-2114

Date: July 26, 2022
Customer No. 27752

Electronic Patent Application Fee Transmittal

Application Number:	17194437			
Filing Date:	08-Mar-2021			
Title of Invention:	DEODORANT COMPOSITIONS			
First Named Inventor/Applicant Name:	David Arthur STRUGIS			
Filer:	Kathleen Yates Carter/Tamara Gozdoff			
Attorney Docket Number:	15149CC			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
STATUTORY OR TERMINAL DISCLAIMER	1814	1	170	170
Total in USD (\$)				170

Electronic Acknowledgement Receipt

EFS ID:	46273785
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	Kathleen Yates Carter/Tamara Gozdif
Filer Authorized By:	Kathleen Yates Carter
Attorney Docket Number:	15149CC
Receipt Date:	26-JUL-2022
Filing Date:	08-MAR-2021
Time Stamp:	14:44:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 170
RAM confirmation Number	E20227PE44424115
Deposit Account	162480
Authorized User	Tamara Gozdif

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

P&G Ex. 2001

Page 182

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		15149CC- Amendment_Response_first_OA.pdf	34763	yes	5
			fd81a11f553a198ceb685ae10ea887323bf231dd		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment/Request for Reconsideration-After Non-Final Rejection		1	1	
	Claims		2	3	
	Applicant Arguments/Remarks Made in an Amendment		4	5	
Warnings:					
Information:					
2	Terminal Disclaimer Filed	15149CC- Terminal_Disclaimer_Over_Patent.pdf	17247	no	2
			c1174487a008b787240a3ab06064a81dfd9e50b8		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	37803	no	2
			f40a9bf3020a9330314496a5a1ad6448a03befa8		
Warnings:					
Information:					
Total Files Size (in bytes):			89813		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Application Number * 17/194,437 *	Application/Control No. 17/194,437	Applicant(s)/Patent under Reexamination STRUGIS et al.	
	Examiner MERCIER, MELISSA S	Art Unit 1615	
Document Code - DISQ		Internal Document - DO NOT MAIL	

TERMINAL DISCLAIMER	☒ APPROVED	☐ DISAPPROVED
Date Filed: <u>26 July 2022</u>	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
/LAWANA R HIXON/ Technology Center: <u>OPLC</u> Telephone: <u>(571)272-6074</u> _____

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 17/194,437		Filing Date 03/08/2021		☐ To be Mailed	
ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO									
APPLICATION AS FILED - PART I									
		(Column 1)		(Column 2)					
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)	
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A			
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A			
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A			
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =	*			x \$100 =			
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*			x \$480 =			
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))									
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL			
APPLICATION AS AMENDED - PART II									
		(Column 1)		(Column 2)	(Column 3)				
AMENDMENT	07/26/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 16	Minus	** 20	= 0		x \$100 =		0
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0		x \$480 =		0
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
						TOTAL ADD'L FEE		0	
		(Column 1)		(Column 2)	(Column 3)				
AMENDMENT	07/28/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 16	Minus	**	=		x \$100 =		
	Independent (37 CFR 1.16(h))	* 1	Minus	***	=		x \$480 =		
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
						TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE			
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/LINDA HUMES/			
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".									
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.									

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 17/194,437
Inventor(s) : David Arthur STRUGIS
Filed : March 08, 2021
Art Unit : 1615
Examiner : Melissa S Mercier
Docket No. : 15149CC
Confirmation No. : 1043
Customer No. : 27752
Title : DEODORANT COMPOSITIONS

SUPPLEMENTAL AMENDMENT AFTER 1ST OFFICE ACTION UNDER 37 C.F.R. §
1.111(c)

INTRODUCTORY REMARKS

The Director is hereby authorized to charge all required fees (including any extension of time fees) and to credit any overpayments in this and any concurrent or future correspondence to Deposit Account No. 16-2480.

In response to the Office Action of May 31, 2022, please consider the following remarks and reconsider the application.

Amendments to the Claims begin on page two of this paper.

Remarks begin on page five of this paper.

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of the claims in the application.

What is claimed is:

1. (Currently Amended) A deodorant stick comprising:
 - a. at least one antimicrobial comprising magnesium hydroxide; and
 - b. a primary structurant with a melting point of at least about 50°C; and
 - c. ~~less than 8% of secondary structurants having a melting point at least about 60°C;~~said stick being free of an aluminum salt; and
said stick having a hardness from about 80 mm*10 to about 140 mm*10, as measured by penetration with ASTM D-1321 needle.
2. (Cancelled)
3. (Original) The deodorant stick of claim 1, wherein the antimicrobial is a powder with a water solubility of at most about 90 g/L at 25°C.
4. (Original) The deodorant stick of claim 1, wherein the deodorant stick is substantially free of baking soda.
5. (Original) The deodorant stick of claim 1, wherein the deodorant stick is substantially free of a synthetic fragrance.
6. (Original) The deodorant stick of any claim 1, wherein the deodorant stick is substantially free of silicones.

7. (Original) The deodorant stick of claim 1, wherein the deodorant stick comprises from 0% to 5% silicones.
8. (Original) The deodorant stick of claim 1, comprising at least about 25% of a liquid triglyceride.
9. (Currently Amended) The deodorant stick of claim 1, ~~wherein~~ further comprising an additional the antimicrobial comprisinges baking soda.
10. (Cancelled)
11. (Original) The deodorant stick of claim 1, wherein the stick comprises from about 8% to about 20% of the primary structurant.
12. (Original) The deodorant stick of claim 1, wherein the primary structurant has a melting point from about 50°C to 75°C.
13. (Original) The deodorant stick of claim 1, comprising less than 5% of secondary structurants having a melting point above 60°C.
14. (Original) A method of making the deodorant stick of claim 1, comprising the steps of combining the deodorant components in an open tank system, mixing the components, heating the components, and cooling the components.
15. (New) The deodorant stick of claim 1, further comprising less than 8% of secondary structurants having a melting point at least about 60°C.
16. (New) The deodorant stick of claim 1, wherein the primary structurant is stearyl alcohol.
17. (New) The deodorant stick of claim 1, further comprising shea butter.
18. (New) The deodorant stick of claim 1, further comprising tapioca starch.

Appl. No. 17/194437
Docket No. 15149CC
Reply to Office Action mailed on May 31, 2022
Supplemental Response filed July 28, 2022
Customer No. 27752

19. (New) The deodorant stick of claim 1, comprising at least about 25% caprylic / capric triglyceride.
20. (New) The deodorant stick of claim 1, comprising at least about 25% of a triglyceride.

Appl. No. 17/194437
Docket No. 15149CC
Reply to Office Action mailed on May 31, 2022
Supplemental Response filed July 28, 2022
Customer No. 27752

REMARKS

Claim Status

Claims 1, 3-9, and 11-20 are pending in the present application. No additional claims fee is believed to be due.

Claim 1 is amended to state that the deodorant stick comprises an antimicrobial comprising magnesium hydroxide and to remove the limitation regarding secondary structurants. Claim 9 is amended and new claims 15-20 are added. Claim 2 and 10 are cancelled.

Applicants submit that these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Claim Objections

Claims 2, 8 and 10 are objected to. Claims 2 and 10 are now cancelled, rendering the objections moot. Due to amendments, Applicants respectfully request that the objection to Claim 8 be withdrawn.

Rejection Under 35 U.S.C. § 102(a)(1) (AIA) Over Osipow et al. (US 5,433,943).

Claims 1-7 and 11-14 are rejected under 35 U.S.C. § 102(a)(1) (AIA) as being anticipated by Osipow et al.

Rejection Under 35 U.S.C. § 103 (AIA) Over Osipow et al.

Claims 1-7, 9, and 11-14 are rejected under 35 U.S.C. § 103 (AIA) as being unpatentable over Osipow et al.

Applicants have amended Claim 1 to state that the deodorant stick comprises an antimicrobial comprising magnesium hydroxide and to remove the limitation regarding secondary structurants. As noted in the Office Action, Osipow does not disclose or teach

Appl. No. 17/194437
Docket No. 15149CC
Reply to Office Action mailed on May 31, 2022
Supplemental Response filed July 28, 2022
Customer No. 27752

the use of magnesium hydroxide in deodorant stick compositions. Thus, Osipow does not anticipate the present invention, nor make it obvious. Applicants respectfully request that the rejections be withdrawn.

Non-Statutory Double-Patenting Rejection

Claims 1-14 are rejected on the ground of non-statutory obviousness-type double patenting over claims 1-15 of U.S. Patent No. 10,966,915.

Claims 1-7 and 9-14 are rejected on the ground of non-statutory obviousness-type double patenting over claims 1-15 of U.S. Patent No. 10,543,164.

Applicants are submitting a terminal disclaimer over U.S. Patents 10,966,915 and 10,543,164 and respectfully request that the rejections be withdrawn.

Conclusion

This response represents an earnest effort to place the present application in proper form and to distinguish the invention as claimed from the applied references. In view of the foregoing, the Applicant respectfully requests the Examiner to reconsider this application, and allow the pending claims.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

By /Kathleen Y. Carter/

Signature

Kathleen Y. Carter

Date: July 28, 2022

Registration No. 60583

Customer No. 27752

(513) 983-2114

Electronic Acknowledgement Receipt

EFS ID:	46291105
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	Kathleen Yates Carter/Lisa Wayman
Filer Authorized By:	Kathleen Yates Carter
Attorney Docket Number:	15149CC
Receipt Date:	28-JUL-2022
Filing Date:	08-MAR-2021
Time Stamp:	10:56:10
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		15149CC- Amendment_first_OA- supplemental.pdf	36586	yes	6
			9bd7e47557384000d822ced5b893901a8062dc9c		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Supplemental Response or Supplemental Amendment	1	1
	Claims	2	4
	Applicant Arguments/Remarks Made in an Amendment	5	6

Warnings:

Information:

Total Files Size (in bytes):	36586
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

27752 7590 10/20/2022
THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

EXAMINER	
MERCIER, MELISSA S	
ART UNIT	PAPER NUMBER

1615

DATE MAILED: 10/20/2022

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/194,437	03/08/2021	David Arthur STRUGIS	15149CC	1043

TITLE OF INVENTION: DEODORANT COMPOSITIONS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1200	\$0.00	\$0.00	\$1200	01/20/2023

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

27752 7590 10/20/2022
THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/194,437	03/08/2021	David Arthur STRUGIS	15149CC	1043

TITLE OF INVENTION: DEODORANT COMPOSITIONS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1200	\$0.00	\$0.00	\$1200	01/20/2023

EXAMINER	ART UNIT	CLASS-SUBCLASS
MERCIER, MELISSA S	1615	424-065000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29☐ Applicant asserting small entity status. See 37 CFR 1.27☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/194,437	03/08/2021	David Arthur STRUGIS	15149CC	1043
EXAMINER				
MERCIER, MELISSA S				
ART UNIT			PAPER NUMBER	
1615				
DATE MAILED: 10/20/2022				

27752 7590 10/20/2022
THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 17/194,437	Applicant(s) STRUGIS et al.	
	Examiner MELISSA S MERCIER	Art Unit 1615	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to See Continuation Sheet.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1,3-9 and 11-20. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.	

/MELISSA S MERCIER/ Primary Examiner, Art Unit 1615	
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Continuation of 1. This communication is responsive to: Applicant's remarks and amended claims filed on July 28, 2022 and terminal disclaimer filed on July 26, 2022 is acknowledged.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Summary

Receipt of Applicant's remarks and amended claims filed on July 28, 2022 is acknowledged. Receipt of the Terminal Disclaimer filed on July 27, 2022 is acknowledged. Claims 1, 3-9, and 11-20 are pending. Claims 1 and 9 have been amended. Claims 2 and 10 have been cancelled. Claims 15-20 are new.

Information Disclosure Statement

Receipt of the Information Disclosure Statement filed on July 22, 2022 is acknowledged. A signed copy is attached to this office action.

Withdrawn Objections/Rejections

Claim Objections

The objection to claim 2 because salicylic is spelled incorrectly in line 5 has been withdrawn in view of Applicant's cancelation of the claim.

The objection of claim 8 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims has been withdrawn in view of Applicants amendment to claim 1 to incorporate the limitations of claim 10 into claim 1.

The objection to claim 10 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims has been withdrawn in view of Applicants cancelation of the claim.

Claim Rejections - 35 USC § 102

The rejection of claims 1-7 and 11-14 under 35 U.S.C. 102(a)(1) as being anticipated by Osipow et al. (US 5,433,943) has been withdrawn in view of Applicants amendment to claim 1 to incorporate the limitations of claim 10.

Claim Rejections - 35 USC § 103

The rejection of claims 1-7, 9, 11-14 under 35 U.S.C. 103 as being unpatentable over Osipow et al. (US 5,433,943) has been withdrawn in view of Applicants amendment to claim 1 to incorporate the limitations of claim 10.

Double Patenting

The rejection of claim 8 to the same invention as that of claim 1 of commonly assigned 10,543,164. Under 35 U.S.C. 101, more than one patent may not be issued on the same invention has been withdrawn in view of Applicant's amendment to claim 1 to recite the antimicrobial agent comprises magnesium hydroxide.

The rejection of claims 1-14 on the grounds of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,966,915 has been withdrawn in view of Applicant's filing of a terminal disclaimer.

The rejection of claims 1-7 and 9-14 on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,543,164 has been withdrawn in view of Applicants filing of a terminal disclaimer.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The closest prior art is that of Lee et al. (US 2002/0086039). Lee discloses cosmetic compositions, for example antiperspirant and deodorant products that can be in the form of a stick. Lee additionally discloses components such as PPG-14 butyl ether, baking soda, dimethicone, isopropyl myristate, mineral oil, octyl dodecanol and stearyl alcohol can be included in said sticks. Lee, however, discloses active ingredients such as aluminum zirconium tetrachlorohydrate gly or aluminum chlorohydrate are included;

Oblong et al. (US 2007/0203240) which discloses personal care compositions comprising niacinamide, stearyl alcohol, dimethicone, and petrolatum. However, the composition is a moisturizing skin cream/lotion. Examples of solid antiperspirants comprise aluminum zirconium tetrachlorohydrate glycinate;

Scavone (US 6,485,717) and (US 7,033,579) which disclose anhydrous antiperspirant and deodorant composition comprising stearyl alcohol, niacinamide, and dimethicone, however, Scavone also requires the use of aluminum zirconium tetrachlorohydrate glycinate; and

Osipow et al. (US 5,433,943) discloses a deodorant composition. Example 1 discloses a deodorant stick composition comprising:

*Calcium carbonate (antimicrobial);

*Wax blend-stearyl alcohol has a melting point of 59.4-59.8 °Celsius, which meets the limitation of a primary structurants in the instant claim.

*Example 1 does not disclose a secondary structurants greater than 8% having a melting point of at least 60 °Celsius.

*Example 1 additionally does not disclose the use of an aluminum salt.

Osipow does not disclose the use of magnesium hydroxide is not disclosed, nor is there any teaching within the art to indicate that magnesium hydroxide can be used in deodorant stick compositions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA S MERCIER whose telephone number is (571)272-9039. The examiner can normally be reached M-F 5:30 am to 4 pm EST.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Robert Wax can be reached on 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center

is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MELISSA S MERCIER/
Primary Examiner, Art Unit 1615

Issue Classification 	Application/Control No. 17/194,437	Applicant(s)/Patent Under Reexamination STRUGIS et al.
	Examiner MELISSA S MERCIER	Art Unit 1615

CPC						
Symbol					Type	Version
A61K	/	8	/	92	F	2013-01-01
A61Q	/	15	/	00	I	2013-01-01
A61K	/	8	/	19	I	2013-01-01
A61K	/	8	/	732	I	2013-01-01
A61K	/	8	/	375	I	2013-01-01
A61K	/	8	/	0229	I	2013-01-01
A61K	/	8	/	0241	I	2013-01-01
A61K	/	8	/	37	I	2013-01-01
A61K	/	8	/	4926	I	2013-01-01
A61K	/	8	/	922	I	2013-01-01
A61K	/	2800	/	34	A	2013-01-01
A61Q	/	17	/	005	A	2013-01-01
A61K	/	2800	/	30	A	2013-01-01
A61K	/	2800	/	74	A	2013-01-01

CPC Combination Sets					
Symbol				Type	Set
	/		/		

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 18	
/MELISSA S MERCIER/ Primary Examiner, Art Unit 1615 (Primary Examiner) _____ (Date) 03 October 2022		O.G. Print Claim(s) 1	O.G. Print Figure none

Issue Classification 	Application/Control No. 17/194,437	Applicant(s)/Patent Under Reexamination STRUGIS et al.	
	Examiner MELISSA S MERCIER	Art Unit 1615	

INTERNATIONAL CLASSIFICATION				
CLAIMED				
A61K8/92	/	8	/	92
A61Q15/00	/	15	/	00
A61K8/19	/	8	/	19
A61K8/73	/	8	/	73
A61K8/37	/	8	/	37
A61K8/02	/	8	/	02
A61K8/49	/	8	/	49
A61Q17/00	/	17	/	00
NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 18	
/MELISSA S MERCIER/ Primary Examiner, Art Unit 1615 (Primary Examiner) _____ (Date) 03 October 2022		O.G. Print Claim(s) 1	O.G. Print Figure none

Issue Classification 	Application/Control No. 17/194,437	Applicant(s)/Patent Under Reexamination STRUGIS et al.
	Examiner MELISSA S MERCIER	Art Unit 1615

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1		10	17	19										
	2	9	11	18	20										
2	3	10	12												
3	4	11	13												
4	5	12	14												
5	6	13	15												
6	7	14	16												
7	8	15	17												
8	9	16	18												

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 18	
/MELISSA S MERCIER/ Primary Examiner, Art Unit 1615 (Primary Examiner) _____ (Date) 03 October 2022		O.G. Print Claim(s) 1	O.G. Print Figure none

Bibliographic Data

Application No: 17/194,437

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☒ No ☐ Met After Allowance

Verified and Acknowledged: /MELISSA S MERCIER/

Examiner's Signature

Initials

Title: DEODORANT COMPOSITIONS

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
03/08/2021	424	1615	15149CC
RULE			

APPLICANTS

The Procter & Gamble Company, Cincinnati, OH,

INVENTORS

David Arthur STRUGIS, Montgomery, OH, UNITED STATES

Lindsey Michelle BRITT, West Chester, OH, UNITED STATES

CONTINUING DATA

This application is a CON of 16716542 12/17/2019 PAT 10966915

16716542 is a CON of 16021965 06/28/2018 PAT 10543164

16021965 has PRO of 62647104 03/23/2018

16021965 has PRO of 62527180 06/30/2017

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

03/16/2021

STATE OR COUNTRY

UNITED STATES

ADDRESS

THE PROCTER & GAMBLE COMPANY

GLOBAL IP SERVICES

CENTRAL BUILDING, C9

ONE PROCTER AND GAMBLE PLAZA

CINCINNATI, OH 45202

UNITED STATES

FILING FEE RECEIVED

\$1,820

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	314287	deodorant	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/05/24 02:31 PM
L2	198	L1 AND antimicrobial SAME "baking soda"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/05/24 02:33 PM
L3	8993	L1 AND antimicrobial SAME ("baking soda" magnesium hexamidine "zinc carbonate" thymol "sodium carbonate" "calcium carbonate" "polyvinyl formate" "salicylic acid" niacinamide cinnamon)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/05/24 02:43 PM
L4	2499	((("THE") near3 ("PROCTER") near3 ("&") near3 ("GAMBLE") near3	(USPAT)	OR	ON	ON	2022/05/25 06:38 AM

L5	12	("COMPANY"))).AS,AA NM. (((("STRUGIS") near3 ("David")) OR ("BRITT") near3 ("Lindsey"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2022/05/25 06:39 AM
L6	194	"4049792"	(USPAT)	OR	OFF	OFF	2019/05/30 06:43 AM
L7	117	"ASTM D-1321"	(USPAT)	OR	OFF	OFF	2019/05/30 06:47 AM
L8	117	"ASTM D-1321"	(USPAT)	OR	ON	ON	2019/05/30 06:47 AM
L9	12	"ASTM D-1321" AND antimicrobial	(USPAT)	OR	ON	ON	2019/05/30 06:50 AM
L10	33	"ASTM D-1321" AND antimicrobial	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/05/30 06:50 AM
L11	10	"ASTM D-1321" AND deodorant	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/05/30 08:23 AM
L12	122	"ASTM D-1321" AND hardness	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/05/30 08:25 AM
L13	82	"ASTM D-1321" SAME hardness	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/05/30 08:26 AM
L14	467	"3792068"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/05/30 08:26 AM
L15	174	"3792068"	(USPAT)	OR	ON	ON	2019/05/30 08:27 AM
L16	162	"3887692"	(USPAT)	OR	ON	ON	2019/05/30 08:27 AM
L17	167	"3904741"	(USPAT)	OR	ON	ON	2019/05/30 08:28 AM
L18	187	"5019375"	(USPAT)	OR	ON	ON	2019/05/30 08:29 AM
L19	17	"529806"	(USPAT)	OR	ON	ON	2019/05/30 08:30 AM
L20	144	"5429816"	(USPAT)	OR	ON	ON	2019/05/30 08:30 AM
L21	54	"5891424"	(USPAT)	OR	ON	ON	2019/05/30 08:32 AM
L22	65	"5976514"	(USPAT)	OR	ON	ON	2019/05/30 08:33 AM
L23	18	"4906454"	(USPAT)	OR	ON	ON	2019/05/30 08:34 AM

L24	41	"5972319"	(USPAT)	OR	ON	ON	2019/05/30 08:35 AM
L25	20	"6177066"	(USPAT)	OR	ON	ON	2019/05/30 08:35 AM
L26	1	"8460720"	(USPAT)	OR	ON	ON	2019/05/30 08:42 AM
L27	1	"8574559"	(USPAT)	OR	ON	ON	2019/05/30 08:44 AM
L28	6	"8672067"	(USPAT)	OR	ON	ON	2019/05/30 08:45 AM
L29	1	"9468596"	(USPAT)	OR	ON	ON	2019/05/30 08:50 AM
L30	3	"9949920"	(USPAT)	OR	ON	ON	2019/05/30 09:04 AM
L31	0	"20030235546"	(USPAT)	OR	ON	ON	2019/05/30 09:04 AM
L32	1	"20030235546"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:05 AM
L33	1	"20050281767"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:05 AM
L34	1	"20110076309"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:06 AM
L35	1	"20110196786"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:06 AM
L36	1	"20160235661"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:11 AM
L37	1	"20190000730"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:12 AM
L38	978061	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone)	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 09:18 AM
L39	220470	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 12:06 PM

L40	224991	myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss)	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 12:10 PM
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L41	509700	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol")	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 12:15 PM
L42	215206	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 12:55 PM

		myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") AND ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde")					
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L43	47436	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) AND ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") AND ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 01:18 PM
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L44	38478	magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND (stick hardness) (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax"	(US-PGPUB; USPAT)	OR	ON	ON	2019/05/30 01:19 PM
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L45	15506	"behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax"	(USPAT)	OR	ON	ON	2019/05/30 01:20 PM
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L46	1327	"sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed	(USPAT)	OR	ON	ON	2019/05/30 01:29 PM
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L47	198	oil" "stearyl alcohol" orokerite candelilla carnauba espartoglass "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND stick (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin"	(USPAT)	OR	ON	ON	2019/05/30 01:31 PM
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L48	438	"hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide") AND stick (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl	(USPAT)	OR	ON	ON	2019/05/30 01:32 PM
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L49	127	behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartoglass "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME	(USPAT)	OR	ON	ON	2019/05/30 01:33 PM
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L50	399	("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartoglass "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/05/30 02:20 PM
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		octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol" orokerite candelilla carnauba espartograss "cork wax" guaruma "rice oil wax" "sugar cane wax" ouricury "montan ester wax" "sunflower wax" shellac "microcrystalline wax" "sasol wax" polyethylene polymethylene "ethylene glycol dipalmitate" "behenyl behenate" "glyceryl tribehenate" "hydrogenated castor oil" "castor wax" "behenyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark					
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L51	218	essential oil" "cinnamic aldehyde") AND deodorant SAME stick (olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/06/13 03:50 PM
L52	218	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/06/14 07:07 AM

		"isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME stick					
L53	5	"4005186"	(US-PGPUB; USPAT)	OR	ON	ON	2019/06/17 02:23 PM
L54	5	"6485717"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2019/06/17 07:39 PM
L55	17	"5744146"	(US-PGPUB; USPAT)	OR	ON	ON	2019/10/07 06:47 AM
L56	1	"9517193"	(US-PGPUB; USPAT)	OR	ON	ON	2019/10/07 06:55 AM

L57	1	"20170252288"	(US-PGPUB; USPAT)	OR	ON	ON	2019/10/07 06:57 AM
L58	6	"6231842"	(US-PGPUB; USPAT)	OR	ON	ON	2020/07/28 01:38 PM
L59	3	"10543164"	(US-PGPUB; USPAT)	OR	ON	ON	2020/07/28 01:42 PM
L60	373	(olive coconut sunflower jojoba avocado canola corn mineral shea "PPG-14 butyl ether" "isopropyl myristate" petrolatum "butyl stearate" "cetyl octanoate" "butyl myristate" "myristyl myristate" finsolv octyldodecanol "isostearyl isostearate" "octododecyl benzoate" "isostearyl lactate" "isostearyl palmitate" "isobutyl stearate" dimethicone) SAME ("japan wax" "lemon wax" "grapefruit wax" "beeswax" "ceresine" "paraffin" "hydrogenated jojoba" "ethylene glycol distearate" "stearyl stearate" "palmityl stearate" "stearyl behenate" "cetearyl behenate" "hydrogenated high erucic acid rapeseed oil" "stearyl alcohol") SAME ("baking soda" "magnesium hydroxide" "hexamidine" "magnesium carbonate" "zinc carbonate" "thymol" "sodium carbonate" "magnesium carbonate hydroxide" "partially carbonated magnesium hydroxide" "calcium carbonate" "polyvinyl formate" "salicylic acid" "niacinamide" "cinnamon essential oil" "cinnamon bark essential oil" "cinnamic aldehyde") AND deodorant SAME (stick solid)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/07/30 04:49 PM

L61	0	"2016048425"	(US-PGPUB; USPAT)	OR	ON	ON	2020/08/19 04:09 PM
L62	10	"2016048425"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/08/19 04:09 PM
L63	8	"5298640"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:23 PM
L64	18	"5744146"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:23 PM
L65	12	"5744146"	(USPAT)	OR	ON	ON	2020/10/02 03:23 PM
L66	18	"5744146"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:42 PM
L67	17	"6624126"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:44 PM
L68	2	"9517193"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:45 PM
L69	3	"10555884"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:56 PM
L70	1	"20010046479"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 03:58 PM
L71	1	"20130045907"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:01 PM
L72	2	"20130045910"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:03 PM
L73	2	"20140154189"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:04 PM
L74	1	"20150196477"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:04 PM
L75	1	"20160074300"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:05 PM
L76	2	"20160326091"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:07 PM
L77	1	"20170172873"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:07 PM
L78	2	"20170252288"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/02 04:11 PM
L79	3	"10470999"	(US-PGPUB; USPAT)	OR	ON	ON	2020/10/05 07:52 AM
L80	10	"2016048425"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 07:55 AM
L81	3	"20170252288"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 09:55 AM
L82	17	"10555884"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	ON	2020/10/05 11:42 AM

L83	244356	triglyceride	IBM_TDB) (US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 01:20 PM
L84	39037	triglyceride AND antimicrobial	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 01:20 PM
L85	4026	triglyceride AND antimicrobial AND deodorant	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 01:20 PM
L86	657	triglyceride AND antimicrobial SAME (beryllium magnesium calcium piroctone) AND deodorant	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 01:21 PM
L87	418	triglyceride AND antimicrobial SAME (beryllium magnesium calcium piroctone) AND deodorant AND stick	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 01:29 PM
L88	292	triglyceride AND antimicrobial SAME (beryllium magnesium calcium piroctone) AND deodorant AND stick AND fragrance SAME oil	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2020/10/05 01:36 PM
L89	14203	((("THE") near3 ("PROCTER") near3 ("&") near3 ("GAMBLE") near3 ("COMPANY"))).AS,AA NM.	(USPAT)	OR	OFF	OFF	2020/10/29 02:33 PM
L90	75	((("STURGIS") near3 ("David")) OR (("BRITT") near3 ("Lindsey"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2020/10/29 02:33 PM

PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		17194437	
	Filing Date		2021-03-08	
	First Named Inventor	STURGIS David Arthur (STURG/DA)		
	Art Unit	1615		
	Examiner Name	MERCIER, MELISSA S		
	Attorney Docket Number	--15149CC-US		

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵

/MELISSA S MERCIER/

10/03/2022

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	MERCIER, MELISSA S
Attorney Docket Number	--15149CC-US

1	Final Office Action; U.S. Patent Application Ser. No. 16/716540 dated August 24, 2020 (Attorney Docket No. 14861MC); SEE PAIR	☐
2	Non-Final Office Action; U.S. Patent Application Ser. No. 16/021877 dated May 03, 2019 (Attorney Docket No. 14861M); SEE PAIR	☐
3	Non-Final Office Action; U.S. Patent Application Ser. No. 16/021931 dated March 13, 2020 (Attorney Docket No. 15150); SEE PAIR	☐
4	Non-Final Office Action; U.S. Patent Application Ser. No. 16/716540 dated May 11, 2020 (Attorney Docket No. 14861MC); SEE PAIR	☐
5	Non-Final Office Action; U.S. Patent Application Ser. No. 16/716542 dated August 04, 2020 (Attorney Docket No. 15149C); SEE PAIR	☐
6	Non-Final Office Action; U.S. Patent Application Ser. No. 17/124565 dated March 01, 2022 (Attorney Docket No. 15150C); SEE PAIR	☐
7	Notice of Allowance; U.S. Patent Application Ser. No. 16/021877 dated August 22, 2019 (Attorney Docket No. 14861M); SEE PAIR	☐
8	Notice of Allowance; U.S. Patent Application Ser. No. 16/021877 dated November 27, 2019 (Attorney Docket No. 14861M); SEE PAIR	☐
9	Notice of Allowance; U.S. Patent Application Ser. No. 16/021931 dated August 04, 2020 (Attorney Docket No. 15150); SEE PAIR	☐
10	Notice of Allowance; U.S. Patent Application Ser. No. 16/021931 dated October 09, 2020 (Attorney Docket No. 15150); SEE PAIR	☐
11	Notice of Allowance; U.S. Patent Application Ser. No. 16/021965 dated June 24, 2019 (Attorney Docket No. 15149); SEE PAIR	☐

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	17194437
Filing Date	2021-03-08
First Named Inventor	STURGIS David Arthur (STURG/DA)
Art Unit	1615
Examiner Name	MERCIER, MELISSA S
Attorney Docket Number	--15149CC-US

12	Notice of Allowance; U.S. Patent Application Ser. No. 16/021965 dated October 11, 2019 (Attorney Docket No. 15149); SEE PAIR	☐
13	Notice of Allowance; U.S. Patent Application Ser. No. 16/716540 dated February 24, 2021 (Attorney Docket No. 14861MC); SEE PAIR	☐
14	Notice of Allowance; U.S. Patent Application Ser. No. 16/716542 dated December 09, 2020 (Attorney Docket No. 15149C); SEE PAIR	☐
15	Notice of Allowance; U.S. Patent Application Ser. No. 17/124,565 dated June 20, 2022 (Attorney Docket No. 15150C); SEE PAIR	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/MELISSA S MERCIER/	Date Considered	10/03/2022
--------------------	---------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

27752 7590 10/20/2022
THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Lisa Wayman	(Typed or printed name)
/Lisa Wayman/	(Signature)
November 3, 2022	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/194,437	03/08/2021	David Arthur STRUGIS	15149CC	1043

TITLE OF INVENTION: DEODORANT COMPOSITIONS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1200	\$0.00	\$0.00	\$1200	01/20/2023

EXAMINER	ART UNIT	CLASS-SUBCLASS
MERCIER, MELISSA S	1615	424-065000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Kathleen Y Carter

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

The Procter & Gamble Company

Cincinnati OH

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No.

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Kathleen Y. Carter/

Date November 3, 2022

Typed or printed name Kathleen Y Carter

Registration No. 60583

Electronic Patent Application Fee Transmittal

Application Number:	17194437			
Filing Date:	08-Mar-2021			
Title of Invention:	DEODORANT COMPOSITIONS			
First Named Inventor/Applicant Name:	David Arthur STRUGIS			
Filer:	Kathleen Yates Carter/Lisa Wayman			
Attorney Docket Number:	15149CC			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	1200	1200

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1200

Electronic Acknowledgement Receipt

EFS ID:	46950395
Application Number:	17194437
International Application Number:	
Confirmation Number:	1043
Title of Invention:	DEODORANT COMPOSITIONS
First Named Inventor/Applicant Name:	David Arthur STRUGIS
Customer Number:	27752
Filer:	Kathleen Yates Carter/Lisa Wayman
Filer Authorized By:	Kathleen Yates Carter
Attorney Docket Number:	15149CC
Receipt Date:	03-NOV-2022
Filing Date:	08-MAR-2021
Time Stamp:	09:25:53
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 1200
RAM confirmation Number	E2022A3026083786
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	15149CC-FeeTransmittal.pdf	197925	no	1
			5d34fbfe928117301b63e8b18fd05825ed24ee3		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	37759	no	2
			80c7117fc37af47c8e90d7d0e7c15c9407f847e1		
Warnings:					
Information:					
Total Files Size (in bytes):			235684		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/194,437	01/03/2023	11540999	15149CC	1043

27752 7590 12/14/2022

THE PROCTER & GAMBLE COMPANY
GLOBAL IP SERVICES
CENTRAL BUILDING, C9
ONE PROCTER AND GAMBLE PLAZA
CINCINNATI, OH 45202

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 21 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional inventors):

David Arthur STURGIS, Montgomery, OH;
Lindsey Michelle BRITT, West Chester, OH;

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

The Procter & Gamble Company, Cincinnati, OH;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.



UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION

APPLICATION #
17194437

FILING DATE
03/08/2021

FIRST NAMED INVENTOR
David STURGIS

ATTORNEY DOCKET #
15149CC

Title of Invention

DEODORANT COMPOSITIONS



Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action



This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent interest
The Procter & Gamble Company	100%
Total	100%

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

Application #	Filing Date
17961089	10/06/2022
17979822	11/03/2022

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed

prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

Patent #

10905647

11497706

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.



Terminal disclaimer fee under 37 CFR 1.20(d) included with Electronic Terminal Disclaimer request.

Applicant claims the following entity status:

Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I certify, in accordance with 37 CFR 1.4(d)(4) that I am: An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Signature	Name	Registration #
/Kathleen Y. Carter/	Kathleen Carter	60583

* Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP 324.



ELECTRONIC PAYMENT RECEIPT

APPLICATION #
17/194,437

RECEIPT DATE / TIME
09/19/2023 11:17:57 AM ET

ATTORNEY DOCKET #
15149CC

Title of Invention

DEODORANT COMPOSITIONS

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # 11540999

CONFIRMATION # 1043

FILED BY Stephanie Powell

PATENT CENTER # 62820365

AUTHORIZED BY Kathleen Carter

CUSTOMER # 27752

FILING DATE 03/08/2021

CORRESPONDENCE ADDRESS -

FIRST NAMED INVENTOR David Arthur STURGIS

Payment Information

PAYMENT METHOD
DA / 162480

PAYMENT TRANSACTION ID
E202391B18115405

PAYMENT AUTHORIZED BY
Kathleen Carter

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
1814	STATUTORY DISCLAIMER, INCLUDING TERMINAL DISCLAIMER	170.00	1	170.00
TOTAL AMOUNT:				\$170.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



**UNITED STATES
PATENT AND TRADEMARK OFFICE**

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

APPROVAL LETTER

APPLICATION #
17/194,437

FILING DATE
03/08/2021

APPLICANT/PATENT UNDER REEXAMINATION
David STURGIS

Title of Invention

DEODORANT COMPOSITIONS

Electronic terminal disclaimer filed on 09/19/2023

☒ Approved

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APPLICATION #
17/194,437

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Title of Invention

DEODORANT COMPOSITIONS

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
 under 35 USC 111(a)

PATENT # 11540999

CONFIRMATION # 1043

FILED BY Stephanie Powell

PATENT CENTER # 62820365

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Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
petition-request.pdf	3	Terminal Disclaimer-Filed (Electronic)	50 KB
grantLetter.pdf	1	Terminal Disclaimer-Electronic- Approved	19 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
petition-request.pdf	8670C5C606CD9DD1F8B0251536386D526F90498CB8BC2F963 4F2B78BDC116ADFF5EBAA4F16455375158604B6A0E36BC891

DC4624984B9E33487EEABEFB64E60F

grantLetter.pdf

CCBA243C9EE10F32E1B6BD12081836A88B0EBF9557EA7656D
63CD29D581A4A927CEC0655AF8B25D16C14BBD0A28FAC891
CCA735797E5F03B1EA0CBECA1783B7A

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

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New International Application Filed with the USPTO as a Receiving Office

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