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(54) **PRODUIT ANTISUDORIFIQUE SOUS FORME SOLIDE A
FAIBLE RESIDU**
(54) **LOW RESIDUE SOLID ANTIPERSPIRANT**

(57) L'invention concerne une composition antisudorifique à faible résidu sensiblement exempte d'eau et des alcools gras à longue chaîne renfermant a) entre environ 30 % et environ 50 % de silicone volatile; b) entre environ 5 % et environ 30 % d'un principe actif antisudorifique particulaire; c) entre environ 2 % et environ 12 % d'huile de ricin hydrogénée; d) entre environ 8 % et environ 28 % de paraffine; et e) entre environ 10 % et environ 25 % d'émollient. Le rapport entre la paraffine et l'huile de ricin hydrogénée est compris entre environ 6/1 et environ 0,85/1.

(57) The present invention is directed to a low residue antiperspirant composition substantially free of water and long chain fatty alcohols which comprises: (a) from about 30 % to about 50 % of a volatile silicone; (b) from about 5 % to about 30 % of a particulate antiperspirant active; (c) from about 2 % to about 12 % of hydrogenated castor oil; (d) from about 8 % to about 28 % of paraffin; and (e) from about 10 % to about 25 % of an emollient; wherein the ratio of the paraffin to hydrogenated castor oil is from about 6 to 1 to about 0.85 to 1.

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Patents and patent documents related to this field of invention are as follows:

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| | USP 3,255,082; | Barton et al; |
| 5 | USP 3,986,203; | Spitzer et al; |
| | USP 4,083, 956 | Shelton; |
| | EPA 28,853 | Beckmeyer et al; |
| | USP 4,425,328, | Nabial et al; |
| | USP 4,265,878, | Keil; |
| 10 | USP 4,229,432, | Geria; |
| | USP 4,724,139, | Palinczar |
| | USP 4,985,238 | Tanner et; and |
| | USP 5,486,347, | Callaghan et al. |
- 15 EP-A-295070 discloses antiperspirant compositions essentially containing a polyhydric alcohol, which in practice solubilises the antiperspirant, whereas in the present invention the antiperspirant is in particulate form. EP-A-388110 discloses creams which are thickened with an
- 20 inorganic material, namely clay together with an essential additional constituent, an activator for the clay. The present invention does not employ a clay-based system to introduce structure to the composition. WO-97/15270 discloses a cosmetic product containing essentially a
- 25 dispersed particulate alkali metal or ammonium bicarbonate. WO-97/16162 discloses an antiperspirant cream which is structured using a silicon wax of specified formula. None of EP-A-295070 EP-A-388110 WO-97/15270 or WO-97/16162 disclose the preparation of compositions structured with
- 30 invention combination of wax structurants within the specified ratio range.

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SUMMARY OF THE INVENTION

The present invention is directed to a low residue antiperspirant composition substantially free of water and
5 long chain fatty alcohols which comprises:

- (a) from about 30% to about 50% of a volatile
silicone;
- (b) from about 5% to about 30% of a particulate
10 antiperspirant active;
- (c) from about 2% to about 12% of hydrogenated castor
oil;
- (d) from about 8% to about 28% of paraffinwax ; and
- (e) from about 10% to about 25% of an emollient;

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wherein the ratio of the paraffin wax to hydrogenated
castor oil is from about 6 to 1 to about 0.85 to 1.

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The present invention is also directed to a method for preventing and controlling perspiration wetness in humans comprising the application to the underarm area of an effective amount of the composition as above.

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DETAILED DESCRIPTION OF THE INVENTION

As used herein % means weight %, unless otherwise specified.

10 All of the ingredients used to prepare the compositions of the invention are known.

The present invention is directed to a low residue antiperspirant composition substantially free of water and
15 long chain fatty alcohols which comprises:

- (a) from about 30% to about 50% of a volatile silicone;
- (b) from about 5% to about 30% of a particulate
20 antiperspirant active;
- (c) from about 2% to about 12% of hydrogenated castor oil;
- (d) from about 8% to about 28% of paraffin wax; and
- (e) from about 10% to about 25% of an emollient;

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wherein the ratio of the paraffin wax ~~to~~ hydrogenated castor oil is from about 6 to 1 to about 0.85 to 1.

The present invention is also directed to a composition as
30 above wherein the ratio of paraffin wax to hydrogenated castor oil to is from about 4 to 1 to about 1 to 1.

The present invention is also directed to a composition as above wherein the ratio of paraffin wax to hydrogenated

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castor oil to is from about 4 to 1 to about 1 to 1, and particularly from about 2 to 1 to about 1 to 1.

5 The present invention is also directed to a composition as above wherein the volatile silicon is present in a range of about 35% to about 45%.

10 The present invention is also directed to a composition as above wherein the particulate antiperspirant active is present in a range of about 20% to about 25%

15 The present invention is also directed to a method for preventing and controlling perspiration wetness in humans comprising the application to the underarm area of an effective amount of the composition as above.

The present invention is also directed to process for preparing antiperspirant compositions of the invention.

20 PARAFFINIC HYDROCARBON

The branched chain hydrocarbons useful in the present invention are branched non-volatile aliphatic waxes.

25 Paraffin is a solid mixture of hydrocarbons obtained from petroleum characterized by relatively ~~large~~ crystals.

The preferred branched hydrocarbon used in the compositions of the invention is paraffin.

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Examples I, J, K, L, M, N, O, P, Q and R

The ingredients in the tables below are in weight %'s.

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Ingredient	I	J	K	L	M	N
Cyclomethicone C245	41.05	38.85	36.80	39.10	39.10	37.07
Paraffin wax	16.92	16.05	16.01	16.92	15.19	16.05
Castorwax	6.85	5.98	6.48	8.85	5.66	5.98
PPG-14 Butyl ether	10.03	10.40	9.49	10.03	9.84	10.40
Finsolv TN	1.55	-	1.47	1.55	-	-
PEG-8 Distearate	2.85	4.50	2.70	2.85	4.26	4.50
SF 1642	-	1.00	-	-	0.95	1.00
AZG-370	20.00	20.0	-	-	-	-
Q 5-7167	-	-	24.00	24.00	24.00	24.00
Fragrance	0.75	0.75	1.00	1.00	1.00	1.00

