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(54) **SKIN TREATMENT IN ANTISEPTIC THIN
FILM FORM WITH SILVER**

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(57) **ABSTRACT**

Related U.S. Application Data

(60) Provisional application No. 61/463,168, filed on Feb.
14, 2011.

A skin treating and antibacterial composition, consisting essentially water, emollient, emulsifier, humectant, thickener, silver or silver citrate, and additional ingredients, and providing a superior hand lotion.

SKIN TREATMENT IN ANTISEPTIC THIN FILM FORM WITH SILVER

[0001] This application claims priority from provisional application Ser. No. 61/463,168 filed Feb. 14, 2011.

BACKGROUND OF THE INVENTION

[0002] This invention relates generally to improvements in skin or hand lotion compositions, and more particularly to a superior lotion that provides decontamination such as antibacterial and/or antiviral protection to the skin of the user, as well as skin, smoothing and anti-roughness properties.

[0003] There is need for effectively protecting the hands, antiseptonally, in view of constant and/or repetitive hand contact with surfaces carrying unknown distribution of bacteria—as for example door knobs, door opening devices, vehicle steering wheels, tools, and other equipment.

SUMMARY OF THE INVENTION

[0004] The present invention relates to an improved lotion, such as an antiseptic general use lotion composition applicable to the skin, as for example a hand lotion. IT is particularly characterized as antibacterial such as anti *E. coli* cells, and antiviral. As will be seen, it incorporates small amounts (less than 1% by weight silver or silver compound, such as silver citrate, in combination with lotion ingredients including water, an emollient, an emulsifier, an humectant, a thickener, together with less than 1% by weight of additional substances, as will be seen. Silver ion is typically released in the combination, for anti-microbial action.

[0005] The invention provides lotion properties of advantage over alternative lotions lacking durable antibacterial cell and/or antiviral properties as well as the particular combination of functions as disclosed herein.

DETAILED DESCRIPTION

[0006] The preferred skin treatment anti-bacterial composition of the invention employs the following ingredients, with percentages by weight, as indicated.

	% by weight
Water (Aqua)	30.00-100.00
Isopropyl Palmitate (Palm Oil)	3.00-10.00
Caprylic/Capric Triglyceride (Plant Derived)	3.00-10.00
Glyceryl Stearate (Plant Derived)	3.00-10.00
Glycerin (Plant Derived)	1.00-3.00
Cetearyl Alcohol (Plant Derived)	1.00-3.00
<i>Butyrospermum Parkii</i> (Shea Butter) Fruit	1.00-3.00
Polysorbate-60 (Plant Derived)	1.00-3.00
Phenoxyethanol (Preservative)	0.30-1.00
Ethylhexylglycerin (Plant Derived Preservative)	0.30-1.00
Xanthan gum (Natural Thickener)	0.10-0.30
Citric Acid (Naturally Derived)	0.01-0.10
Silver Citrate	0.10-0.30
Tocopherol (Antioxidant)	0.01-0.10
Glycolic Acid	0.01-0.10
<i>Aloe Barbadensis</i> (Aloe Vera) Leaf Juice	0.01-0.10
Panthenol (Pro-Vitamin B5)	0.01-0.10
Lactis Proteinum (Milk Protein)	0.01-0.10
<i>Melaleuca Alternifolia</i> (Tea Tree) Leaf O	0.01-0.10
<i>Leptospermum Scoparium</i> (Manuka) Oil	0.01-0.10
	100.00

[0007] Functions of the ingredients are as follows:

	Function	Cas #
Water (Aqua)	Solvent	7732-18-5
Isopropyl Palmitate (Palm Oil)	Emollient	142-91-6
Caprylic/Capric Triglyceride (Plant Derived)	Emollient	65381-09-1
Glyceryl Stearate (Plant Derived)	Emulsifier	123-94-4
Glycerin (Plant Derived)	Humectant	56-81-5
Cetearyl Alcohol (Plant Derived)	Thickener	5-44-5
<i>Butyrospermum Parkii</i> (Shea Butter) Fruit	Emollient	194043-92-0
Polysorbate-60 (Plant Derived)	Emulsifier	9005-67-8
Phenoxyethanol (Preservative)	Preservative	122-99-6
Ethylhexylglycerin (Plant Derived)	Preservative	70445-33-9
Xanthan Gum (Natural Thickener)	Thickener	11138-66-2
Citric Acid (Naturally Derived)	Acidifier	77-92-2
Silver Citrate	Buffer	No CAS #
Tocopherol (Antioxidant)	Antioxidant	59-02-9
Glycolic Acid	Acidifier	79-14-1
<i>Aloe Barbadensis</i> (Aloe Vera) Leaf Juice	Botanical	8001-97-6
Panthenol (Pro-Vitamin B5)	Moisturizer	81-13-0
Lactis Proteinum (milk protein)	Conditioner	84082-51-9
<i>Melaleuca Alternifolia</i> (Tea Tree) Leaf O	Anti-Dandruff	68647-73-4
<i>Leptospermum Scoparium</i> (Manuka) Oil	Anti-Dandruff	219828-87-2

[0008] The indicated antiseptic property of silver citrate may be further characterized as antibacterial and/or antiviral, and adds significantly to the unusually effective skin treatment properties of the remaining ingredients, as combined.

[0009] The method of use of the above defined composition includes topically applying a sufficient amount of the composition to substantially cover the hand or hands of the user, as a thin film.

[0010] Such application is preferably at least once, on a daily basis, typically to remain on the hands as a protective film during the day.

[0011] The ingredients other than the dispersed silver ingredient assure thorough spreading of the silver ingredient onto and over the skin of the user, such as the hands, as a thin film, for effective treatment of the skin, including durable smoothing, as well as antibacterial and/or antiviral treatment or protection. The invention as disclosed is preferred, or in its preferred composition form.

I claim:

1. A skin treatment composition, consisting essentially of:
 - a) between 30% and 100% by weight water,
 - b) between 7% and 23% by weight emollient,
 - c) between 4% and 13% by weight emulsifier,
 - d) between 1.0% and 3.30% by weight thickener,
 - e) between 1.00% and 3.00% humectant,
 - f) between 0.01% and 2.30% by weight of ingredients selected from the group:
 - i) preservative
 - ii) acidifier
 - iii) antioxidant
 - iv) moisturizer,
 - v) botanical
 - vi) conditioner
 - vii) anti-dandruff
 - and g) between 0.10% and 0.30% by weight silver or silver compound.

2. The composition of claim 1 wherein said silver compound is silver citrate.

3. The composition of claim 1 wherein said emollient is selected from the group:

- caprylic/capric triglyceride
- isopropyl palmitate
- butyrospermum parkii.

4. The composition of claim 1 wherein said emulsifier is selected from the group:

glyceryl stearate (plant derived)
polysorbate-60 (plant derived).

5. The composite of claim 1 wherein said thickener is selected from the group:

xanthum gum
cetearyl alcohol.

6. The composition of claim 1 wherein said humectant is glyceric.

7. The composition of claim 1 including, or wherein:

said Acidifier is citric acid (naturally derived)

said silver compound is Silver Citrate

said Antioxidant is Tocopherol (Antioxidant)

including Acidifier which is Glycolic Acid including

Botanical i.e. Aloe Barbadensis (*Aloe Vera*) Leaf Juice

including Moisturizer i.e. Panthenol (Pro-Vitamin B5)

said Conditioner is Lactis Proteinum (Milk Protein)

and including Anti-Dandruff which is *Melaleuca Alternifolia* (Tea Tree) Leaf O

including Anti-Dandruff which is *Leptospermum Scoparium* (Manuka) Oil

8. The composition of claim 3 wherein said silver compound is silver citrate.

9. The composition of claim 4 wherein said silver compound is silver citrate.

10. The composition of claim 7 wherein said silver compound is silver citrate.

11. The composition of claim 1 wherein said silver compound is silver citrate.

12. A skin treatment composition consisting essentially of the following in combination:

% by wt.	
30.00-100.00	Water (Aqua)
3.00-10.00	Isopropyl Palmitate (Palm Oil)
3.00-10.00	Caprylic/Capric Triglyceride (Plant Derived)
3.00-10.00	Glyceryl Stearate (Plant Derived)
1.00-3.00	Glycerin (Plant Derived)
1.00-3.00	Cetearyl Alcohol (Plant Derived)
1.00-3.00	<i>Butyrospermum Parkii</i> (Shea Butter) Fruit
1.00-3.00	Polysorbate-60 (Plant Derived)
0.30-1.00	Phenoxyethanol (Preservative)
0.30-1.00	Ethylhexylglycerin (Plant Derived Preservative)
0.10-0.30	Xanthan Gum (Natural Thickener)
0.10-0.30	Citric Acid (Naturally Derived)
0.10-0.30	Silver Citrate
0.01-0.10	Tocopherol (Antioxidant)
0.01-0.10	Glycolic Acid
0.01-0.10	<i>Aloe Barbadensis</i> (Aloe Vera) Leaf Juice
0.01-0.10	Panthenol (Pro-Vitamin B5)
0.01-0.10	Lactis Proteinum (Milk Protein)
0.01-0.10	<i>Melaleuca Alternifolia</i> (Tea Tree) Leaf O
0.01-0.10	<i>Leptospermum Scoparium</i> (Manuka) Oil
100.00	

13. A skin treatment composition consisting of:

	Function	CAS#
Water (Aqua)	Solvent	7732-18-5
Isopropyl Palmitate (Palm Oil)	Emollient	142-91-6

-continued

	Function	CAS#
Caprylic/Capric Triglyceride (Plant Derived)	Emollient	65381-09-1
Glyceryl Stearate (Plant Derived)	Emulsifier	123-94-4
Glycerin (Plant Derived)	Humectant	56-81-5
Cetearyl Alcohol (Plant Derived)	Thickener	5-44-5
<i>Butyrospermum Parkii</i> (Shea Butter) Fruit	Emollient	194043-92-0
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Phenoxyethanol (Preservative)	Preservative	122-99-6
Ethylhexylglycerin (Plant Derived)	Preservative	70445-33-9
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Panthenol (Pro-Vitamin B5)	Moisturizer	81-13-0
Lactis Proteinum (milk protein)	Conditioner	84082-51-9
<i>Melaleuca Alternifolia</i> (Tea Tree) Leaf O	Anti-Dandruff	68647-73-4
<i>Leptospermum Scoparium</i> (Manuka) Oil	Anti-Dandruff	219828-87-2

14. The method of use of the spreadable composition of claim 1 that includes topically applying sufficient amount of the composition to substantially cover a major extent of the hand or hands of the user, as a thin film.

15. The method of use of the composition as defined in claim 14 wherein topical application thereof is at least once per day.

16. The composition that consists essentially of

a) a hand lotion,

b) silver citrate dispersed substantially uniformly in the lotion, to constitute between about 0.10 and 0.30 percent by weight of the lotion.

17. The method of use of the composition of claim 16 that includes topically applying sufficient amount of the composition to substantially cover a major extent of the hand or hands of the user, as a thin film.

18. The method of claim 17 wherein said application of the composition is at least once, on a daily basis.

19. The method of claim 17 wherein said composition includes:

said Acidifier is citric acid (naturally derived)

said silver compound is Silver Citrate

said Antioxidant is Tocopherol (Antioxidant)

including Acidifier which is Glycolic Acid including

Botanical i.e. Aloe Barbadensis (*Aloe Vera*) Leaf Juice

including Moisturizer i.e. Panthenol (Pro-Vitamin B5)

said Conditioner is Lactis Proteinum (Milk Protein)

and including Anti-Dandruff which is *Melaleuca Alternifolia* (Tea Tree) Leaf O

including Anti-Dandruff which is *Leptospermum Scoparium* (Manuka) Oil

20. The method of use of the composition of claim 12 that includes topically applying sufficient amount of the composition to substantially cover a major extent of the hand or hands of the user, as a thin film.

21. The method of use of the composition of claim 13 that includes topically applying sufficient amount of the composition to substantially cover a major extent of the hand or hands of the user, as a thin film.

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