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*Patents Act 1990*

**Notice Of Entitlement**

I, John Gordon Hinde, of Spruson & Ferguson, 31 Market Street, Sydney, New South Wales, 2000, Australia, being the Patent Attorney for the Applicant/Nominated Person in respect of Application No. 64469/94, state the following:-

The Applicant/Nominated Person has entitlement from the actual inventor as follows:

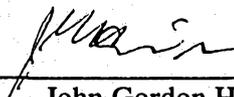
The Applicant/Nominated Person is the assignee of the actual inventor.

The Applicant/Nominated Person is entitled to rely on the application listed in the Declaration under Article 8 of the PCT as follows:

The Applicant/Nominated Person is the assignee of the basic applicant.

The basic application listed on the Declaration under Article 8 of the PCT is the first application made in a Convention country in respect of the invention.

DATED this Sixteenth Day of July 1996

  
\_\_\_\_\_  
John Gordon Hinde

IRN: 313080

Instructor Code: 057100



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**(12) PATENT ABRIDGMENT (11) Document No. AU-B-64469/94**  
**(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 671736**

- (54) Title  
**NON-AEROSOL SHAVING GEL**
- International Patent Classification(s)  
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**037958 26.03.93 US UNITED STATES OF AMERICA**
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- (71) Applicant(s)  
**THE GILLETTE COMPANY**
- (72) Inventor(s)  
**WILLIAM RODERICK GRACE**
- (74) Attorney or Agent  
**SPRUSON & FERGUSON , GPO Box 3898, SYDNEY NSW 2001**
- (57) Claim

1. A non-aerosol shaving composition in the form of a clear gel comprising in percent by weight, with the balance being water,

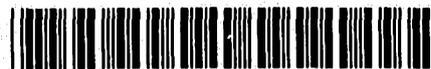
(a) about 15 to 20% of a mixture of potassium myristate and potassium palmitate wherein the myristic acid to palmitic acid ratio is about 2 to 1;

(b) about 2 to 4% Oleth-20;

(c) about 1 to 5% sodium lauroyl sarcosinate; and

(d) about 1 to 2% hydroxyethylcellulose, about 1 to 3% sorbitol, and about 1 to 2% PEG-150 distearate.

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INT:

<p>(51) International Patent Classification <sup>5</sup> : A61K 7/15</p>	<p>A1</p>	<p>(11) International Publication Number: WO 94/22415 (43) International Publication Date: 13 October 1994 (13.10.94)</p>
<p>(21) International Application Number: PCT/US94/02855 (22) International Filing Date: 16 March 1994 (16.03.94) (30) Priority Data: 037,958 26 March 1993 (26.03.93) US (60) Parent Application or Grant (63) Related by Continuation US 037,958 (CON) Filed on 26 March 1993 (26.03.93) (71) Applicant (for all designated States except US): THE GILLETTE COMPANY [US/US]; Prudential Tower Building, Boston, MA 02199 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): GRACE, William, Roderick [US/US]; 389 Hverhill Street, Reading, MA 01867 (US). (74) Agents: HANDELMAN, Joseph, H. et al.; Ladas &amp; Parry, 26 West 61st Street, New York, NY 10023 (US).</p>		<p>(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p> <p>671736</p>
<p>(54) Title: NON-AEROSOL SHAVING GEL</p>		
<p>(57) Abstract</p> <p>The present invention comprises a non-aerosol shaving composition in the form of a clear gel comprising in percent by weight, with the balance being water, (a) about 15 to 20% of a mixture of potassium myristate and potassium palmitate wherein the myristic acid to palmitic acid ratio is about 2 to 1; (b) about 2 to 4 % Oleth-20; (c) about 1 to 5 % sodium lauroyl sarcosinate; and (d) about 1 to 2 % hydroxyethyl cellulose, about 1 to 3 % sorbitol, and about 1 to 2 % PEG-150 distearate. This composition provides superior shaving attributes compared to other non-aerosol shaving products.</p>		

NON-AEROSOL SHAVING GELBackground Of The Invention

This invention relates to a new, non-aerosol shaving gel composition.

5 Non-aerosol shaving preparations have been available for decades in a variety of forms including bars, sticks, creams and lotions and generally have been of two types--lathering, typically applied with a brush, and non-  
10 lathering, typically applied with the fingers. The lathering type is predominantly soap and the non-lathering type is an oil-in-water emulsion.

It is an object of the present invention to provide a non-aerosol shaving  
15 composition which is a transparent or clear gel and which provides lather either by application with a brush, sponge or other applicator or by application with the fingers. It is a further object of the present invention to provide a  
20 non-aerosol shaving gel composition with advantageous lathering properties, and skin and beard conditioning properties, resulting in superior shave attributes compared to other non-aerosol shaving products.

25 Summary Of the Invention

The present invention comprises a non-aerosol shaving composition in the form of a

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clear gel comprising in percent by weight, with the balance being water,

(a) about 15 to 20% of a mixture of potassium myristate and potassium palmitate wherein the myristic acid to palmitic acid ratio is about 2 to 1;

(b) about 2 to 4% Oleth-20;

(c) about 1 to 5% sodium lauroyl sarcosinate; and

(d) about 1 to 2% hydroxyethyl cellulose, about 1 to 3% sorbitol, and about 1 to 2% PEG-150 distearate.

In the above formulation, it is preferred to keep the amount of free fatty acid at a level less than about 0.1% in order to maintain clarity at low temperatures.

#### Detailed Description Of The Invention

Specific examples of shaving compositions which are embraced by the present inventions and which provide superior shaving attributes have the following formulae, wherein percentages are by weight:

<u>Ingredient</u>	<u>Ex. 1</u>	<u>Ex. 2</u>
Myristic acid	10.40	9.5
Palmitic acid	5.15	4.7
Potassium hydroxide	3.66	3.3
Oleth-20	3.00	3.0
Sodium lauroyl sarcosinate	2.25	2.0
Hydroxyethylcellulose	1.47	1.3
Sorbitol	1.50	1.3
PEG-150 distearate	1.38	1.3
Balance water		

Optionally, fragrances, dyes and preservatives may be added to the above formulae as deemed necessary or desirable. In addition, about 1.0% aloe vera gel may be added to soothe sensitive skin. It is also advantageous to incorporate in the above formulae about 0.0005

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to 0.1% of a fluorosurfactant, such as Zonyl FSK, Zonyl FSA or Zonyl FSN fluorosurfactant, available from DuPont.

It will be readily understood by those  
5 skilled in the art that one or more of the  
components specified in the above formulation  
may be substituted with equivalent materials.  
For example, Oleth-20 may be replaced with other  
known emollients such as Oleth-10 or Laureth-23.  
10 Sodium lauroyl sarcosinate may be replaced by  
the corresponding myristoyl or cocoyl  
sarcosinates. Sorbitol may be replaced by other  
known humectants such as glycerin, propylene  
glycol or Glycereth-26. Hydroxyethylcellulose  
15 may be replaced by other known gelling agents  
such as guar gum, cetyl hydroxyethylcellulose,  
hydroxypropylcellulose or carbomers. PEG-150  
distearate may be replaced by other known  
thickeners such as PEG-8 distearate or PEG-120  
20 methyl glucose dioleate.

The shaving gel composition of the  
present invention is made by the following  
procedure. Hydroxyethylcellulose is dispersed  
in water in an agitated mixing vessel and heated  
25 to about 80-85°C. When the solution temperature  
reaches 65°C., the myristic acid, palmitic acid,  
PEG-150 distearate and Oleth-20 are added. At  
80-85°C., when the fatty acids are melted and  
homogeneous, aqueous potassium hydroxide is  
30 added slowly and the solution is mixed until  
uniform (about 30-60 min.). The solution is  
sampled for free fatty acid and adjusted, if  
necessary, with KOH to bring the free fatty acid  
level to 0.1% or lower or with myristic/palmitic  
35 acid (2:1) if there is free alkali. The  
solution is cooled to 35°C., with sodium lauroyl  
sarcosinate (along with optional dyes, perfumes

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and aloe vera gel) being added at about 45°C.,  
and the product collected as a clear gel.

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C L A I M S

1. A non-aerosol shaving composition in the form of a clear gel comprising in percent by weight, with the balance being water,

5 (a) about 15 to 20% of a mixture of potassium myristate and potassium palmitate wherein the myristic acid to palmitic acid ratio is about 2 to 1;

(b) about 2 to 4% Oleth-20;

10 (c) about 1 to 5% sodium lauroyl sarcosinate; and

(d) about 1 to 2%

hydroxyethylcellulose, about 1 to 3% sorbitol, and about 1 to 2% PEG-150 distearate.

15 2. The non-aerosol shaving composition according to claim 1, wherein the amount of free fatty acid is less than about 0.1%.

3. The non-aerosol shaving composition according to claim 2, comprising about 10.40% myristic acid, about 5.15% palmitic acid, about 3.66% potassium hydroxide, about 3.00% Oleth-20, about 2.25% sodium lauroyl sarcosinate, about 1.50% sorbitol, about 1.47% hydroxyethyl-  
20 cellulose and about 1.38% PEG-150 distearate.

25 4. The non-aerosol shaving composition according to claim 3, further comprising about 1.0% aloe vera gel.

5. The non-aerosol shaving composition according to claim 1, comprising about 9.5% myristic acid, about 4.7% palmitic acid, about 3.3% potassium hydroxide, about 3.0% Oleth-20, about 2.0% sodium lauroyl sarcosinate, about 1.3% hydroxyethylcellulose, about 1.3% sorbitol  
30 and about 1.3% PEG-150 distearate.

35 6. The non-aerosol shaving composition according to claim 2, further comprising about 0.0005 to 0.1% of a fluorosurfactant.

7. A non-aerosol shaving composition in the form of a clear gel, substantially as hereinbefore described with reference to any one of the Examples.

**Dated 22 September, 1995**  
**The Gillette Company**

**Patent Attorneys for the Applicant/Nominated Person**  
**SPRUSON & FERGUSON**

SPRUSON & FERGUSON



INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US94/02855

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(5) :A61K 7/15

US CL :424/73; 514/944

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/73; 514/944

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 4,528,111 (SU) 09 July 1985, Examples 1-10.	1-6
A	US, A, 5,034,220 (HELIOFF ET AL.) 23 July 1991, see entire document.	1-6

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be part of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer <i>Len Weaver for</i> THURMAN K. PAGE Telephone No. (703) 308-2351