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AS: 02.020 Radicación : 03069070 00000004 Folios: 9
Fecha (AMD): 2005-12-14 16:54:50
Trámite : 011 PCT-PATENT 279 FASE NUCI 538 PETICION
Dependencia: 2820 DIVISION DE NUEVAS CREACIONES

Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

E. S. D.

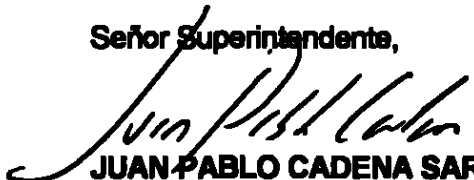
REF.: Expediente No. 03 089.070 solicitud de Patente FASE NACIONAL
Corresp. a la Solicitud Internacional PCT/US02/06838
a nombre de COLGATE - PALMOLIVE COMPANY

Titulada: COMPOSICIÓN COSMÉTICA PARA HIDRATAR LA PIEL QUE
COMPRENDE UNA SAL DE COLINA Y UN PORTADOR COMPATIBLE CON LA
PIEL

JUAN PABLO CADENA SARMIENTO, vecino de Bogotá, portador de la tarjeta profesional No. 57492 del Consejo Superior de la Judicatura, obrando como apoderado sustituto de la Sociedad COLGATE - PALMOLIVE COMPANY, según lo acredita el documento de poder anexo al presente escrito, de acuerdo con el Artículo 44 de la Decisión 486 de la Comisión de la Comunidad Andina, me permito solicitar que se examine si la invención contenida en la solicitud en referencia es patentable.

De acuerdo con lo anterior, me permito allegar el recibo oficial de caja No. 05-92,207 por valor de \$186.000.

Señor Superintendente,


JUAN PABLO CADENA SARMIENTO

C.C. No. 80.410.337 de Usaquén

T.P. No. 57492 del C.S.J.

Cra. 7 No. 16-56 Piso 9

Diciembre 12, 2005
CHP/MEV/har.

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SUPERINTENDENCIA Y COMERCIO
Radicacion : 03009070 00000004 Folios: 9
Fecha (HMS): 2005-12-14 16:54:50
Tramite : 011 PCT-PATENT 379 FASE NACI 530 PETICION
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176009-2

RECIBO OFICIAL DE CAJA : 05 - 92,207
FECHA : DICIEMBRE 2 DE 2005

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
BRIGARD & CASTRO LTDA	CONSIGNACION	BANCO POPULAR	050-00110-6	30862498	02/12/2005	4,807,040.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		114 PTC CAP-II EXAMEN DE PATENTIBILID	186,000.00
		TOTAL :	\$ 186,000.00

SON: CIENTO OCHENTA Y SEIS MIL PESOS

RESPONSABLE : _____

100
402



252373

Form 1

New York
County of New York

I, NORMAN GOODMAN, County Clerk and Clerk of the Supreme Court of the State of New York, in and for the County of New York, a Court of Record, having by law a seal, DO HEREBY CERTIFY pursuant to the Executive Law of the State of New York, that

Rosie S. Dizon

whose name is subscribed to the annexed affidavit, deposition, certificate of acknowledgment or proof, was at the time of taking the same a NOTARY PUBLIC in and for the State of New York duly commissioned, sworn and qualified to act as such; that pursuant to law, a commission or a certificate of his official character, with his autograph signature has been filed in my office; that at the time of taking such proof, acknowledgment or oath, he was duly authorized to take the same; that I am well acquainted with the handwriting of such NOTARY PUBLIC or have compared the signature on the annexed instrument with his autograph signature deposited in my office, and I believe that such signature is genuine.

IN WITNESS WHEREOF, I have hereunto set my hand affixed my official seal this

OCT 30 2001

FEE PAID \$3.00

Norman Goodman
County Clerk and Clerk of the Supreme Court, New York County



Apostille

(Convention de La Haye du 5 Octobre 1961)

103
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1. Country: **United States of America**

This public document

2. has been signed by **Norman Goodman**

3. acting in the capacity of **County Clerk**

4. bears the seal/stamp of the county of **New York**

Certified

5. At New York, New York

6. the 30th day of October 2001

7. by Special Deputy Secretary of State, State of New York

8. No. NYC-9786540B

9. Seal/Stamp

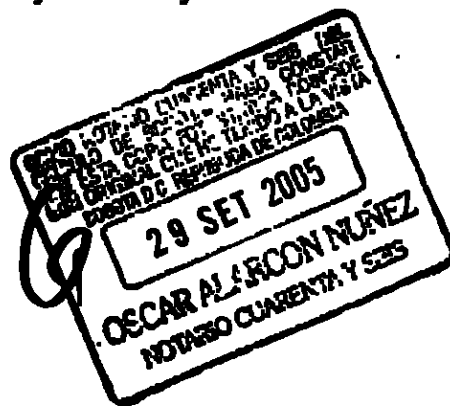
10. Signature



Aqil M. Qureshi

Special Deputy Secretary of State

04135555.FBI (REV. 2/99)



Brigard & Castro

SANTA FE DE BOGOTA - COLOMBIA

PODER

POWER OF ATTORNEY

Yo (nosotros)

domiciliado(s) en

Nombre(amos) a: RAMIRO CASTRO DUQUE y/o JUAN PABLO CADENA SARMIENTO y/o BEATRIZ JARAMILLO S.

de Santafé de Bogotá, Colombia, apoderados verdaderos y legales con poder especial, amplio y suficiente, para recabar de las oficinas y autoridades colombianas administrativas, judiciales y de policía, en cualquier instancia o recurso, la obtención de patentes de invención, registros de marcas, diseños industriales, modelos de utilidad, depósitos de nombres comerciales y enseñas, registros de derechos de autor y contratos sobre los mismos, obtención de certificados de obtentor de variedades vegetales, así como sus prórrogas, renovaciones, anotaciones de traspaso, cambios de nombre y/o domicilio; elaborar, tramitar y registrar contratos de licencia y licencias de cuasquienes clases; intervenir como demandante o como demandado en cualquier instancia y recurso ante cualquier juez, corporación, funcionario público o autoridad en acciones judiciales, administrativas y de policía tales como: oposiciones al registro de marcas; acciones de caducidad, cancelación y nulidad; acciones reivindicatorias, acciones derivadas de la obtención o explotación de licencias; acciones de competencia desleal; demandas penales; acciones de indemnización de perjuicios, reclamos y observaciones a solicitudes de patentes, diseños industriales, modelos de utilidad, en el ejercicio de medidas cautelares y en otras acciones o medidas similares.

A este efecto, lo(s) facuto(amos) para elevar solicitudes, formular descripciones, enmiendas, protestas, declaraciones, oposiciones, cancelaciones, nulidades, apelaciones y reclamos; pagar impuestos, cuotas y gravámenes prescritos por la ley; renunciar o desistír a derechos concedidos o en curso de concesión; recibir toda clase de documentos y valores, dando el descargo respectivo, y, en general, para dar ante dichas autoridades todos los pasos necesarios al efecto indicado y tomar todas las medidas que creyeran conducentes al resguardo de mis (nuestros intereses), con todas las demás facultades legales necesarias.

Este poder comprende la facultad de ratificar o confirmar en mi (nuestro) nombre lo actuado así como la facultad de desistír, transigir, comprometer o sustituir en todo o en parte y en todas las sustituciones. Asimismo nombre(amos) a: RAMIRO CASTRO DUQUE y/o JUAN PABLO CADENA SARMIENTO y/o BEATRIZ JARAMILLO S.

domiciliado(s) en la Carrera 7 No. 16-56 Piso 9, (nuestros) apoderados en Colombia, con facultad para recibir notificaciones y designar apoderados judiciales o extrajudiciales.

Otorgado y firmado en

hoy de

Firma

Nombre

I (We)

COLGATE-PALMOLIVE COMPANY, a Delaware corporation, of 300 Park Avenue, New York, New York 10022, U. S. A.

Hereby appoint RAMIRO CASTRO DUQUE and/or JUAN PABLO CADENA SARMIENTO and/or BEATRIZ JARAMILLO S.

of Santafé de Bogotá, Colombia, my (our) true and lawful attorneys with special, ample and sufficient power to obtain from the Colombian administrative, judicial and police offices and authorities, in any instance, privileges of patents of invention, registration of trademarks, industrial designs and utility models; registration of commercial names and emblems, registration of copyright and contracts related thereto, certificates of obtainers of vegetable varieties, as well as extensions, renewals and recordal of assignments and changes of name and domicile related to the above; to prepare, prosecute and register licenses of any kind; to act as plaintiff or defendant in any instance or recourse, and before any judge, corporation, public official or authority in judicial, administrative and police actions, such as: oppositions to the registration of trademarks; caducity, cancellation and nullity actions; claim actions derived from the obtaining or exploitation of licenses, action of unfair competition; penal demands, actions of indemnities for damages; claims or observations on patent applications, models, industrial designs and utility models; in the exercise of preventive measures; and in other actions or similar proceedings.

To that effect they are hereby empowered to file applications, formulate descriptions, amendments, protests, declarations, oppositions, cancellations, nullities, appeals and claims; to pay taxes, quotas and assessments prescribed by law, renounce or waive the rights granted or in the process of granting; to receive all kind of documents and valuables, giving the respective release of receipt, and, in general, to take before said authorities the necessary steps to such effect, and any measures that they may deem pertinent to the safeguard of my (our) interest(s) with all the other necessary legal powers.

This power includes the faculty to ratify or confirm or to compromise on my (our) behalf...and to substitute the power in whole or in part and to make substitutions. At the same time I (We) hereby appoint RAMIRO CASTRO DUQUE and/or JUAN PABLO CADENA SARMIENTO and/or BEATRIZ JARAMILLO S.

domiciled in Carrera 7 No. 16-56, Piso 9, my (our) attorney(s) in fact, with powers to receive notifications and to designate judicial and extrajudicial attorneys.

Granted and signed in **New York, N.Y.**this **OCT 29 2001** day of **2001**

Signature

Name

**VICE PRESIDENT &
ASSOCIATE GENERAL COUNSEL
TRADEMARK**

Ante Pury

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CERTIFICADO NOTARIAL (SOCIEDAD)

NOTARIAL CERTIFICATE (CORPORATION)

Hoy de de
personalmente compareció ante mí

a quien conozco, y de quien me consta que firmó el
anterior documento, debidamente juramentado declaró
y dijo que él es

de

Sociedad legalmente constituida para un período de
duración que aún no ha terminado; que el declarante
está autorizado por dicha compañía para conferir este
poder; que el sello estampado por él al pie de tal poder,
en nombre y representación de la expresada compañía,
es el sello oficial de ella; y que el objeto para el cual se
confiere este instrumento está comprendido dentro del
de la sociedad.

El suscrito Notario hace constar que tuvo a la vista las
pruebas de la existencia de la sociedad.

Estado de
con fecha

y que quien confiere el presente poder es su
representante.

Notario Público (sello)

CERTIFICADO NOTARIAL
PERSONA NATURAL

Hoy de de , compareció(eron)
ante mí

a quien (es) conozco y me consta que es(son) la(s)
persona(s) firmante(s) del documento que preceda y
quien(es) declara(n) que otorgan el mismo para los
fines y propósitos que en él se expresan.

Notario Público (sello)

LEGALIZACION POR APOSTILLA ES REQUERIDA

On this OCT 29 2001 day of
personally appeared before me

to me known, and known to me to be the person who
signed the foregoing instrument who being by me duly
sworn did depose and say that he (she) is the

VICE PRESIDENT &
ASSOCIATE GENERAL COUNSEL
TRADEMARK
COLGATE-PALMOLIVE COMPANY

Which is legally constituted for a term not yet expired,
that deponent is authorized by said Company to confer
this Power of Attorney: that the seal affixed hereunto
by the deponent in the name and on behalf of said
Corporation is the corporate seal thereof; and that the
purpose for which this instrument is granted is
included within the corporate purpose of company.

The undersigned Notary Public attests that he has seen
the documents that prove the existence of the
company.

State of Delaware
under date of May 13, 1997

and that he (she) who grants the present power of
attorney is its Representative.

Notary Public

ROSIE S. DIZON
Notary Public, State of New York
No. 31-494117
Qualified in New York County
Commission Expires Aug. 15, 2002

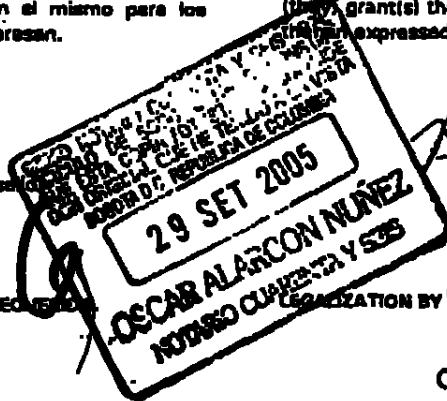
On this OCT 29 2001 day of
personally appeared before me

SCOTT E THOMPSON

who is(are) known to me and who I attest, executed
the foregoing document and he (they) declared he
(they) grant(s) the document for the purposes
expressed.

Notary Public (Sello)

ROSIE S. DIZON
Notary Public, State of New York
No. 31-494117
Qualified in New York County
Commission Expires Aug. 15, 2002



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X 106

APOSTILLE

(Convención de La Haya del 5 de Octubre de 1961)

1. País: ESTADOS UNIDOS DE AMERICA
Este documento público

2. ha sido firmado por Norman Goodman

3. actuando en capacidad de Oficial del Condado

4. lleva el sello/timbre del condado de New York

CERTIFICADO

5. en New York, New York

6. el 30 de Octubre de 2001

7. por Secretario de Estado Encargado Especial, Estado de New York

8. No. NYC-9786540B

9. Sello/Timbre

10. Firma

(Firma)

Aquil M. Qureshi

Secretario de Estado Encargado Especial



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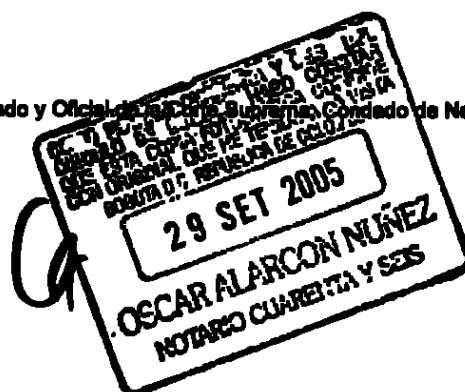
Certificado Notarial

252373

Rosie S. Dizon

TARIFA PAGADA \$3.00

Oficial del Condado y Oficial de la Corte Suprema, Condado de New York





ORGANIZACION ELECTORAL
REGISTRADURÍA NACIONAL DEL ESTADO CIVIL

GAVIRI

108

REGISTRO CIVIL DE DEFUNCIÓN

Indicativo
Serial

5562241

Datos de la oficina de registro							
Clase de oficina:	Registraduría	Notaría	☒	Consulado	Corregimiento	Insp. de Policía	Código
País - Departamento - Municipio - Corregimiento o Inspección de Policía							
COLOMBIA CUNDINAMARCA BOGOTÁ D.C.						NOTARIA 32.	

Datos del Inmuerto	
Apellidos y nombres completos	
CASTRO DUQUE RAMIRO	
Documento de identificación (Clase y número)	Sexo (en Letras)
C.C. No. 170322 DE BOGOTÁ	MASCULINO

Datos de la defunción			
Lugar de la Defunción: País - Departamento - Municipio - Corregimiento o Inspección de Policía			
COLOMBIA CUNDINAMARCA BOGOTÁ D.C.			
Fecha de la defunción		Hora	Número de certificado de defunción
Año	2004	Mes	10
Día	30	04:10 PM	A- 2094375.
Presunción de muerte			
Luzado que profiere la sentencia		Fecha de la sentencia	
-----		-----	
Documento presentado		Nombre y cargo del funcionario	
Autorización Judicial	☐	Certificado Médico	☒
		ANDRÉS DÍAZ CAMPOS	
		R.M. No. 79982662	

Datos del denunciante	
Apellidos y nombres completos	
EDGAR DAVID REGINO II.	
Documento de identificación (Clase y número)	Firma
C.C. No. 15.030.154 DE LORICA/ CORDOBA	

Primer testigo	
Apellidos y nombres completos	

Documento de identificación (Clase y número)	Firma
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Segundo testigo	
Apellidos y nombres completos	

Documento de identificación (Clase y número)	Firma
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Fecha de inscripción		Notario y firma del Registrador que actúa	
Año	2004	BLANCA ESTREPO	
Mes	1	NOTARIO	
Día	02	BOGOTÁ D.C.	

PARENTES		ESPACIO PARA NOTAS
PADRES: ALFONSO CASTRO		
MERCEDES DUQUE.		

ORIGINAL PARA LA OFICINA DE REGISTRO

NOTARIA 32

DEL CIRCULO DE SANTA FE DE BOGOTA, D.C.

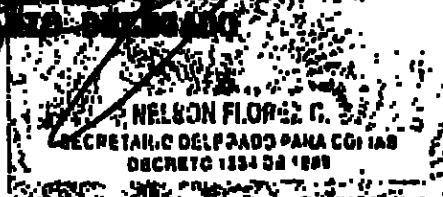
Germán Eleázar Moreno L.
Notario

COMO SECRETARIO DELEGADO EN LA NOTARIA TREINTA Y DOS (32) DEL
CIRCULO DE BOGOTA

CERTIFICO, QUE:

La presente acta es fiel copia del original tomada del registro
civil de defunciones serial indicativa número: **ST 6224**
que expido en la ciudad de Bogotá D.C. hoy: **05 NOV. 2004**

NOTARIA 32 DEL C.
BOGOTA D.C.
SECRETARIO DELEGADO



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DIVISION DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 03-89070

EL EXTRACTO DE LA PRESENTE SOLICITUD DE PATENTE DE INVENCION

- PCT, FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No

553, DE FECHA 30 DE JUNIO DE 2005, EL TERMINO HABIL SEÑALADO POR

LA LEY EXPIRA EL 27 DE SEPTIEMBRE DE 2005.

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI ☐ ☐

NO ☒ ☐



US006120779A

United States Patent [19]
Nayak et al.

[11] **Patent Number:** 6,120,779
[45] **Date of Patent:** Sep. 19, 2000

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[54] **USE OF PARTIAL AND COMPLETE SALTS
OF CHOLINE AND CARBOXYLIC ACIDS
FOR THE TREATMENT OF SKIN
DISORDERS**

[75] **Inventors:** Smriti Nayak; Vinayak Nayak, both of
Marlton, N.J.

[73] **Assignee:** Soma Technologies, Morganville, N.J.

[21] **Appl. No.:** 09/015,239

[22] **Filed:** Jan. 29, 1998

[51] **Int. Cl.⁷** A61K 6/00; A61K 7/00;
A61K 7/04; A61K 7/025

[52] **U.S. CL.** 424/401; 424/64; 424/61;
424/70.1

[58] **Field of Search** 424/401, 61, 64,
424/70.1, 47, 73; 514/844, 847; 564/293

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,892,737 1/1990 Bodor et al. 424/449
5,179,097 1/1993 Angus 514/255

Primary Examiner—Thurman K. Page
Assistant Examiner—S. Howard

[57] **ABSTRACT**

Novel skin care, hair care, nail care, lip care and related external formulations based on partial and complete choline salts of mono, di, tri and polyvalent carboxylic acids of food, cosmetic and pharmaceutical acids are described. These salts have better moisturizing and treating properties compared to the original acids. They tend to form highly elegant cosmetic treatment products when incorporated into lotions, creams, gels, liquids, hars, sticks, sprays and foam products. The mono choline salts of di and polyvalent carboxylic acids are also described in the invention. These mono choline salts tend to retain or enhance the biological properties of the parent molecule with enhanced solubility and bio-availability. These mono choline salts can be formulated as simple solutions and lotions eliminating need of complicated solubilizing systems. The partial and mono choline salts tend to reduce irritation, burning and stinging sensation common to these carboxylic acids.

15 Claims, No Drawings

USE OF PARTIAL AND COMPLETE SALTS OF CHOLINE AND CARBOXYLIC ACIDS FOR THE TREATMENT OF SKIN DISORDERS

BACKGROUND OF THE INVENTION

1. Field of Invention

This invention relates to dermatological and cosmetic compositions containing partial and complete choline salts of mono, di and poly carboxylic acids containing multifunctional chemical groups for the treatment of a variety of disorders, such as dry irritated skin, acne, lack of skin elasticity, low level of skin moisture, excessive premature skin aging related to environmental factors and skin wrinkling due to aging and issues related to hair. The said ingredients can be administered as alcoholic, aqueous or glycolic toning solutions, low and high viscosity lotions, creams, ointments, sticks, serums, foams, shaving creams and lotions, color cosmetics and moistened fabric pads.

2. Description of Related Art

The current invention relates to incorporation of partial and complete choline salts of carboxylic acids in dermatological and cosmetic formulations for the treatment of skin disorders. Such acids are aromatic and aliphatic carboxylic acids or compounds capable of forming salts with weak organic bases by the virtue of keto-enol tautomerism. Several carboxylic acids have been employed in the cosmetic and pharmaceutical industry for the treatment of skin disorders. These compounds are irritating in nature due to their highly acidic nature and hence, their utility is restricted to low concentrations. Organic acids of higher molecular weight are not very active and their use is also limited by their low water solubility. Several alpha hydroxy acids (AHA) utilized in the cosmetic industry suffer from similar problems. The inorganic salts of these AHAs also tend to be irritating and their overall utility is restricted by the irritating, stinging and burning sensation on the naked skin. Complete neutralization of the acidic carboxylic group by inorganic bases also renders these compounds inactive.

U.S. Pat. No. 5,571,518 describes Tricholine citrate as an ester of citric acid with three choline molecules for the treatment of wrinkled and aged skin. This patent emphasizes utility of this ester in a variety of cosmetic compositions for the treatment of acid disorders. U.S. Pat. No. 5,425,934 describes cosmetic compositions based on multi-amine functionalized polymer salt of alpha hydroxy acids, alpha ketocarboxylic acids and related compounds. Treatment of skin keratosis with alpha hydroxy acids and related compounds is described in U.S. Pat. No. 4,234,599. Dicarboxylic acids of 7 to 13 carbon atoms in different dermatological preparations are described by Carl R. Thornfeldt for the treatment of ichthyosis and wrinkling in U.S. Pat. No. 4,885,282. Marcella Nazzaro-Pom in U.S. Pat. No. 4,386,104 describes the use of dicarboxylic acids containing 7 to 13 carbon atoms and their mercapto derivatives for the treatment of acne and skin hyperpigmentation. Specific choline salts of carboxylic acids are not described in literature for the treatment of skin disorders.

SUMMARY OF THE INVENTION

The present invention addresses the need of soluble salts of carboxylic acids capable of delivering the active form of carboxylic acid in a non-irritating form in a cosmetically elegant dosage form. Choline is an essential nutrient in the biosynthetic pathway for normal viable cells. Choline deficiency results in reduced lipoprotein biosynthesis, increased

triglycerides and decreased membrane turnover. Choline in the form of phospholipids has been widely used in cosmetic compositions for wound healing, treatment of dry skin, improvement of transepidermal water loss, skin moisturization and anti-inflammatory effects. But its use as a salt of a carboxylic acid is restricted to anti-inflammatory analgesic composition as described in U.S. Pat. No. 4,275,059. By converting the known carboxylic acids in part or as a complete salt of choline, the utilization of the choline can be improved and made widely available to the desired target tissue. The mono carboxylic acid of food, cosmetic and pharmaceutical interest can be converted to the partial salts of choline by neutralization of the acid with basic choline base or choline bicarbonate. The partial neutralization of the carboxylic acids is of interest as this renders the final composition odor free from amine type odor common to the choline salts. The partial neutralization can be done by adjusting the pH of the final preparation with choline base or choline bicarbonate. For example, a 0.1 to 20% lotion of an alpha hydroxy acid can be adjusted to pH 4.0 with free choline base or choline bicarbonate to get a formulation with high choline content and an appropriate pH for the normal biological activity associated with such products. Such partially neutralized alpha hydroxy acid formulations are completely free from irritation and found to have excellent consumer acceptance. The partially neutralized AHA formulations are free from fishy odors in their containers and also on application to the skin.

The pure salts of choline can be made by the reaction of the carboxylic acids with choline in an anhydrous medium. The resulting product can be dried to remove water or recrystallized to get pure salts. Another possible method is to treat the sodium salt of the carboxylic acid with choline chloride in an anhydrous medium and removing the precipitated sodium chloride by filtration. Such methods are required only when a pure salt is required for identification or characterization. For making the cosmetic and drug formulation containing partial and complete salts, the method of in-situ neutralization appears to be convenient and economical. The pure choline salts tend to be hygroscopic and discolor on storage. These exposure-related problems are circumvented by the in-situ neutralization of the carboxylic acids with choline base or choline bicarbonates. The partial salts of alpha hydroxy acids can be mixtures of different alpha hydroxy acids, alpha keto acids, carboxylic acids and beta hydroxy acids. For example, one can formulate a toner containing a mixture of lactic and salicylic acids neutralized to a specific pH with basic choline. Such formulations are devoid of solubility problems normally associated with the aromatic carboxylic acids.

The important aspect of this invention is the partial neutralization of specific carboxylic groups in compounds containing multiple carboxylic acid groups. For example the dicarboxylic acids of 3-32 carbon atoms can be reacted with one mole of choline base or the bicarbonate to get mono choline salts with unique solubility and biological properties. Mono choline salts tend to have increased water and alcohol solubility compared to the free acids. This increased solubility tends to make the formulation more effective, and at the same time, impart properties uncommon to the original acid. Most of the mono carboxylic acid salts of choline tend to retain high level of moisture and are excellent moisturizers for the cosmetic use. Good examples are mono choline salts of adipic acid and sebacic acids, which tend to retain large amounts of water compared to the free acids. Complete and partial choline salts of beta aromatic carboxylic acids like salicylic acid, are also extremely hygroscopic

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and have good moisturizing properties. Partial neutralization of these acids also solves the problem of discoloration found in the purified isolated complete salts of choline.

Partial salt formation with mono, di and poly carboxylic acids can be generated in-situ by reacting the free acids with the required amount of choline free base or choline bicarbonate at the time of manufacture of the final formulation. In case of the semi-solid and liquid formulations meant for dermatological preparations, this can be easily achieved during the preparation of water or alcohol/glycolic phase of the emulsion. These partial salts are useful as moisturizers in skin care preparations. They can also be used as healing agents in combinations with phospholipids, vitamin E, allantoin, fatty acids, fatty acid esters, herbal extracts, vegetable oils, animal oils, fats, and petrolatum. The mono choline salts are useful in the treatment of acne and can be formulated as clear liquids in hydro alcoholic or glycolic solutions. For example, azelaic acid mono choline salt can be formulated as a clear stable liquid in alcoholic and glycolic medium in excess of 20% concentration. These clear solutions have distinct advantage as they are free from any other oily substances and are easy to apply. The lack of surfactant and other fatty substances in the formulation also makes these formulations much more effective in the treatment of acne and other skin conditions. Choline formulations can also be delivered to the skin as transparent gels by interaction of the free base or bicarbonate with cross linked polyacrylic acid derivatives like Carbomers of different grades. A clear transparent acidic gel is made by the interaction of 0.5 to 1.0% carbomer dispersions with choline bicarbonate or choline base to a pH of 5.0 to 7.0. Such gels have wide applications in skin and hair care products. For example, the interaction of basic choline salt with a carbomer and PVP of different molecular weights can produce clear hair care gels. Similarly, after-shave gels containing panthenol and vitamin E succinate can be made, by the interaction of the acidic carbomer and a basic choline salt.

High water, glycol and alcohol solubility of these partial complete salts of carboxylic acids of cosmetic interest makes the hair-care formulations less complicated. The hair care products formulated with choline carboxylic acid salts tend to impart excellent wet and dry combability to the hair strands. The hair treatment consisting of mixed choline salts of alpha hydroxy acids and dicarboxylic acids in hydro alcoholic solutions without any other additives, is found to have good hair moisturizing and hair manageability properties compared to the commercially available expensive multi-ingredient hair care products. In a head to head comparison with commercially available moisturizers, meant for dry skin and containing alpha hydroxy acids (Lubriderm® moisture recovery lotion and 4% Alphahydrox®), a 4% partial choline salt of mixed alpha and beta hydroxy acids is found to be better tolerated and preferred in consumer trials. Irritation potential and stinging on dry and damaged skin was substantially low compared to the other products. Clinically mixed choline salt product performed significantly better than the marketed products in global physician's assessment of dry skin at the end of two weeks.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Natural carboxylic acids have been used widely in a variety of food, pharmaceutical and cosmetic applications. These natural food acids have found use in cosmetic products as moisturizers and for the treatment of fine wrinkles. But these carboxylic acids tend to be very irritating when

applied in high concentrations. This irritation potential can be substantially reduced by formation of partial choline salts of these mono, di and poly carboxylic acids and the hydroxy derivatives. A variety of such acids are found in fruits of different types and can be isolated from other natural sources or produced synthetically. These acids include, but are not limited to ascorbic, lactic, citric, tartaric, malic, fumaric, succinic, hydroxybutyric, glycolic, lactobionic, acetic, gluconic, salicylic, hydroxy benzoic, mandelic and benzoic acid. The use of partial choline salts of these carboxylic acids leads to the reduction in the burning and the stinging reaction in cosmetic formulations. This adverse reaction can be further reduced by incorporation of partial choline salts of the aromatic carboxylic acids like salicylic acid or the hydroxy benzoic acids along with the aliphatic mono, di and poly carboxylic acids. The moisturization capacity of the formulation is also substantially increased by incorporation of these partial salts. For example, the combination of partial choline salts of lactic acid and salicylic acid in cosmetic formulation results in elegant moisturizers with reduced irritation and good efficacy.

The poly methylene dicarboxylic acids with 4 carbon atoms (Succinic acid) to 36 carbon atoms (Hexacosanedioic acid) are found in nature and are potential candidates for the mono and di choline salt formation with a wide variety of solubility and moisture holding capacity for the treatment of dry skin, hair and other keratinized tissues. These dicarboxylic acids with their melting points are listed in the following table:

DICARBOXYLIC ACID	MELTING POINT
Succinic acid (C-4)	185
Glutaric acid (C-5)	98
Adipic acid (C-6)	153
Pimelic acid (C-7)	105
Suberic acid (C-8)	140
Azelaic acid (C-9)	107
Sebacic (C-10)	133
Undecanedioic acid (C-11)	111
Dodecanedioic acid (C-12)	128
Tridecanedioic acid (C-13)	113
Tetradecanedioic acid (C-14)	126
Pentadecanedioic acid (C-15)	114
Hexadecanedioic acid (C-16)	125
Heptadecanoic acid (C-17)	118
Octadecanedioic acid (C-18)	124
Nonadecanedioic acid (C-19)	119
Eicosanedioic acid (C-20)	124
Hentriacontanoic acid (C-21)	123
Docosanedioic acid (C-22)	126
Tricosanedioic acid (C-23)	127
Tetracosanedioic acid (C-24)	123
Hexacosanedioic acid (C-26)	123
Octacosanedioic acid (C-28)	123-125
Triacosanedioic acid (C-30)	123
Dotriacontanedioic acid (C-32)	123
Triacontanedioic acid (C-34)	123

Succinic acid, glutaric acid and adipic acid are food acids and are widely used in food and pharmaceutical industry as acidulants. Other dicarboxylic acids have limited use and are used only for specific applications. For example, azelaic acid is an approved drug for the treatment of acne. Mono choline salts of lower chain dicarboxylic acids like C-4 to C-10 are not useful as surfactants but the choline salts of higher chain dicarboxylic acids have detergent properties. The mono and di choline salts have higher solubility in water and ethanol. This enhanced solubility of these mono choline salts helps to formulate elegant cosmetic formulations. Mono choline salts

of these dicarboxylic acids are odor-free and can be utilized to formulate cosmetic compositions in acidic environment with extended buffer capacity. The water holding properties of these molecules also help in the formulation of moisturizers with properties linked to alpha and beta hydroxy acids.

EXAMPLE 1

After-shave gel based on choline polyacrylate copolymer

Carbopol 907	0.5%
Disopentanol	0.05%
Alcohol SD 40	20.0%
Choline base or bicarbonate to pH 5.5	q
Water q	100%

EXAMPLE 2

Clear monocholine azelate solution for the treatment of acne.

Azelaic acid	20.0%
Choline bicarbonate 70% solution	25.0%
Purified glycol	10.0%
Alcohol USP	q

EXAMPLE 3

Mixed choline salts of lactic and salicylic acids in toning solutions.

Lactic acid NF	2.0%
Salicylic acid	1.0%
Methyl paraben	0.05%
Propyl paraben	0.04%
Choline bicarbonate 70%	q
to pH 4.5	
Water purified	100%

EXAMPLE 4

Skin moisturizing lotion containing 5% adipic acid as mono choline salt.

Isocetyl stearate	7.0
Isocetyl neopentanoate	3.0
Dow 336	1.0
Dioctylsuccinate 350 m	1.0
Cyclomethicone	1.0
Cetyl alcohol	3.0
Chenopod 945	5.0
Span 80	1.0
Vitamin E	0.25
Xanthan gum	0.05
Glycerin	3.0
Disodium EDTA	0.05
Methyl paraben	0.1
Propyl paraben	0.05
Adipic acid	5.00
Choline bicarbonate 70%	6.1
Water q	62.3

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Perfume	fl
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EXAMPLE 5

Choline lactate/Lactic acid lotion for the treatment of dry and aged skin

Isocetyl stearate	8.0
Isocetyl neopentanoate	2.0
Phenyl trimethicone	3.5
Cyclomethicone	1.0
Cetyl alcohol	2.0
Chenopod 945	5.0
Vitamin E	0.2
Lactic acid	4.0
Choline bicarbonate 70%	
up to pH 4.2	
Disodium EDTA	0.02
Methyl paraben	0.1
Propyl paraben	0.05
Xanthan gum	0.05
Glycerin	3.0
Water purified q	100.0

EXAMPLE 6

Mono choline azelaic acid pads for the treatment of acne or dry irritated skin

Azelaic acid	10.0
Choline bicarbonate 70%	12.54
Purified glycol	20.0
Water DI	30.0
Alcohol SD 40 q	100.0

For every 12x20 cm.

Non-woven fabric pad, use 4.5 to 5 gms of the above solution.

EXAMPLE 7

Cleansing toner with mixed choline carboxylates

Salicylic acid	1.00
Lactic acid	1.00
Butylene glycol	3.00
Choline bicarbonate	q
to pH 4.0	
Methyl paraben	0.05
Alcohol SD 40	20.0
EDTA disodium	0.05
Phenolic F 127	0.50
Water q	100.0

EXAMPLE 8

Mixed Fruit acid partial choline salts containing clear liquids as moisturizers.

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Ascorbic acid	1.0
Lactic acid	1.0
Cholic acid	0.5
Ituronic acid	0.5
Hydroxy cholic acid	0.5
Malic acid	0.5
Formic acid	0.5
Succinic acid	0.5
Oxalic acid	0.5
Glycerin	1.0
Choline bicarbonate	q
to pH 3.8	
Alcohol SD 40	20.0
Water purified q	100

EXAMPLE 9

Lip treatment complex with moisturizers and partial choline salt of natural acids

Lactic acid	1.0
Malic acid	1.0
Ascorbic acid	1.0
Choline bicarbonate 70%	q
to pH 4.0	
Vitamin E	1.0
Glycerin	1.0
Menthol	0.5
Vanilla flavor	0.5
Laureth sulfoxide q	100

EXAMPLE 10

Dry scalp/damaged hair treatment formulation with ascorbic acid mono choline salt.

Glycerin	1.0
PSO 400	10.0
Ascorbic acid	20.0
Choline bicarbonate	25.00
Alcohol (R) 40	25.0
Water DI q	100.0

EXAMPLE 11

Ascorbic acid mono choline lotion for the treatment of cellulite

Isocetyl stearate	8.0
Isocetyl aspartate	2.0
Phenyl trimethicone	2.0
Dimethicone 350 c	1.0
Cyclomethicone	1.0
Cetyl alcohol	2.0
Cetonyl 945	5.0
Stearoth 20	0.2
Vitamin E	0.2
Coffine/Standardized tea extract	1.0
Ascorbic acid	10.0
Choline bicarbonate 70%	12.5
Disodium EDTA	0.02
Methyl paraben	0.1
Propyl paraben	0.05
Xanthan gum	0.1

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Glycerin	1.0
extract of C. canadensis & Z. gugguliferum	0.25
Isocetyl trimethicone	2.0
Water purified q	100.0

EXAMPLE 12

Ascorbic acid mono choline clear liquid for the treatment of cellulite

Ascorbic acid	20.0%
Choline bicarbonate 70% solution	25.00%
Propylene glycol	10.0%
Coffine	1.0%
Alcohol USP q	100.0%

EXAMPLE 13

Natural vinegar containing car moisturizers.

Natural grapefruit/vinegar q to get	2% acetic acid
Choline bicarbonate to adjust pH to 3.5	
Benzyl alcohol	1.0%
Glycerin	1.0%
Water q to	100.0%

EXAMPLE 14

Vaginal moisturizing douche containing natural acid choline salts.

Natural vinegar q	1.00 acetic acid
Lactic acid	1.00
Glycerin	3.00
Choline bicarbonate	q
to pH 3.5	
Methyl paraben	0.08
EDTA disodium	0.05
Phenolic F 177	0.50
Water q	100.0

EXAMPLE 15

Anti-wrinkle skincare compositions containing anthracene, naphthalene carboxylic acid glycosides.

Mixed tocopherols A, E, C & D	0.1
Choline bicarbonate	0.0274
Alcohol 95%	25
Sodium CMC High viscosity	0.5
Glycerin	5.0
Water q	100

EXAMPLE 16

Anti-irritation skincare compositions containing lipoic acid and glycerolizonic acid.

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Resorcinic acids from gum extract	2.0
Glycerin/oleic acid	1.0
Choline bisphosphate	1.0
Cetyl alcohol	4.0
Simeth 20	0.5
Xanthan gum	0.05
Methyl paraben	0.1
Propyl paraben	0.05
Water q.s.	100.0

EXAMPLE 17

Hair spray treatment products for dry and damaged hair

Adipic acid	2.5
Asorbic acid	2.5
Choline bisphosphate 70%	7.17
PVP K30	1.0
Alcohol SD 40	25.0
Water q.s.	100.0

EXAMPLE 18

Liposomal hair spray containing mono choline aspartate for the treatment of dry/damaged hair and reduction in hair loss.

Asorbic acid	5.0
Choline bisphosphate	8.25
Vitamin E	0.25
PVP K30	1.0
Isobutyl Hydro-alcoholic base q.s.	100.0

Lecithin and purified water q.s. for the production of liposomes and achieve the desired encapsulation based on a proprietary process.

EXAMPLE 19

Nail moisturizing composition.	
Asorbic acid	5.0
Lactic acid	1.0
Salicylic acid	1.0
Choline bisphosphate q.s. to pH 4.0	
Dimethyl isosorbide	20.0
Hydramy propylmethyl cellulose	1.0
high viscosity grade	
Alcohol USP q.s.	100.0

Clinical significance and comparison of moisturizing ability of choline salts against the marketed products.

Three subjects with excessive dry and flaky skin below the knees to the foot previously treated with various moisturizers like Lubriderm without any favorable effects were selected for the study. These subjects were instructed not to use any skin treatment product for a week before the current study. The placebo and the lotion containing the partial choline salt of lactic acid and adipic acid (pH 4.2) were applied to the two legs (left and right) in random order two times a day for a week. At the end of 7 days, the skin surface was evaluated for roughness, dryness and flakiness under a magnifying glass by a physician. A marked difference in skin

texture and dryness was observed in each of the three subjects on the leg that received choline salts of carboxylic acids. After discontinuation of the therapy, on third day, the skin was observed for global improvements. The skin treated with partial choline salts of carboxylic acids showed significant improvement compared to the placebo.

It is understood that the specific examples described in the invention herein are intended to be representative only. Any deviations including but not limited to those described in the invention may be made in the description of the preferred embodiment without departing from the main principle of the invention.

What is claimed is:

1. A method of alleviating dry and irritated skin by topically applying to the skin, a cosmetic composition comprising complete or partial choline salts of pharmaceutically acceptable carboxylic acids.

2. The method of claim 1, wherein the said choline salt in the cosmetic composition is prepared in situ, by

A) neutralization of the said carboxylic acid or their combinations with free choline base

B) neutralization of the said carboxylic acids with basic choline salts

C) neutralization of the said carboxylic acids to a pH range of 1.0 to 9.0 by the choline or its basic salts

D) partial neutralization of the single carboxylic group from a multi carboxylic acid to get mono or di choline salts or incorporation of the pure choline salts in different ratios to get the desired concentrations.

3. The method of claim 1, wherein the said carboxylic acid in the composition, is either a single ingredient or a combination selected from the group consisting of alpha hydroxy acids, alpha keto acids, beta hydroxy acids, dicarboxylic acids, mono carboxylic acids, amino acids found in nature, polymeric carboxylic acids, and aromatic acids.

4. The method of claim 1, wherein the composition is formulated in the form of skin moisturizing, antiacne, anti dandruff, anticellulite, nail softening, cleansing, dry-scalp moisturizing/conditioning, ear moisturizing/conditioning, hair-care, lip-treatment, sun-screening lotions, creams, gels or liquids.

5. Skin moisturizing compositions, cleansing compositions and dry-scalp moisturizing and conditioning compositions of claim 4, comprising partial or complete choline salts of nontoxic mono, di, tri, and poly carboxylic acids in 0.001 to 50% of the weight of composition.

6. Lip treatment products, hair care products and ear moisturizers and cleansers of claim 4, wherein partial or complete choline salts of mono, di, tri and poly carboxylic acids are in the range of in 0.001 to 20% of the weight of the composition.

7. Acne treatment products of claim 4 comprising partial or complete choline salts of alpha hydroxy acids, salicylic acid, mandelic acid, C-7 to C-20 dicarboxylic acids or butyric acid in 0.001 to 50% concentration.

8. Nail softening treatment complexes of claim 4 containing partial and complete choline salts of mono, di, tri and poly carboxylic acids in 0.001 to 70% of the weight of the composition.

9. Method of manufacturing the partial salts as described in claim 2 which results in the formation of odor free, color free and stable choline complexes.

10. The method described in claim 2, wherein substantial reduction in local irritation, inflammation, burning and stinging is attained by formation of partial choline salts compared to the free acid formulations.

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11. The cosmetic composition according to claim 1, wherein different combinations of aromatic, aliphatic, alpha and beta hydroxy acids along with C-4 to C-36 dicarboxylic acid mono choline salts are used in a pH range of 2 to 8 for the treatment of sun-damaged skin, wrinkles and age spots.

12. Anti-cellulite compositions of claim 4 containing mixed acid salts of choline in 0.01 to 50% concentration in combination with nicotinic acid, inositol hexanicotinate, caffeine, DHEA, and guggulsterone.

13. Mixed or mono choline salts of long chain carboxylic acids and polymeric carboxylic acids of claim 3 in 0.001 to 50% range used with dual intend as an emulsifier/stabilizer

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or solubilizer while imparting moisturizing properties to skin care products.

14. Partial neutralization of carboxylic acids of claim 2 with choline base to pH range of 2.0 to 8.0 to have better color stability and alleviate odor problems compared to the completely neutralized carboxylic acid salts.

15. Partially neutralized choline salts of carboxylic acids of claim 2 in 0.005 to 50% concentration in an anhydrous base to be mixed in different cosmetic solid or semisolid dosage formulations.

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⑶ Agente: **GH Vega, Victor**

㉒ Título: **Producto cosmético y procedimiento para su utilización.**

ES 2 099 058 T1

REIVINDICACIONES

1. Producto cosmético que contiene agua y una combinación de

a) entre un 0,1 y un 25 por ciento en peso de, como mínimo, una sal de colina de un ácido inorgánico o de un ácido orgánico carboxílico o de un homopolímero o copolímero de ácido poliacrílico y

b) entre un 0,1 y un 10 por ciento en peso de, como mínimo, un ácido orgánico alifático fisiológicamente compatible.

2. Producto cosmético según la reivindicación 1, caracterizado porque contiene entre un 3 y un 15 por ciento en peso de la sal de colina.

3. Producto cosmético según una de las reivindicaciones 1 ó 2, caracterizado porque, como sal de colina, contiene colina citrato, colina tartrato, colina cloruro o colina poliacrilato.

4. Producto cosmético según una de las reivindicaciones 1 a 3, caracterizado porque contiene entre un 0,1 y un 5 por ciento en peso del ácido orgánico alifático fisiológicamente compatible.

5. Producto cosmético según una de las reivindicaciones 1 a 4, caracterizado porque, como ácido orgánico alifático fisiológicamente compatible, contiene ácido cítrico, ácido tartárico, ácido láctico, ácido undecilénico, ácido glicólico o ácido glicólico.

6. Producto cosmético según una de las reivindicaciones 1 a 5, caracterizado porque el ácido orgánico alifático está contenido en una cantidad de un 0,1 a un 5 por ciento en peso.

7. Producto cosmético según una de las reivindicaciones 1 a 6, caracterizado porque se presenta como producto para la fijación del cabello y contiene adicionalmente

c₁) entre un 0,01 y un 25 por ciento en peso de, como mínimo, un polímero natural o sintético y

d₁) entre un 10 y un 98 por ciento en peso de un alcohol, agua o una mezcla de agua-alcohol.

8. Producto cosmético según una de las reivindicaciones 1 a 6, caracterizado porque se presenta como producto para la limpieza de la piel o del cabello y contiene adicionalmente

c₂) entre un 0,01 y un 40 por ciento en peso de agentes tensioactivos aniónicos, anfóteros o no iónicos o su mezcla y

d₂) entre un 50 y un 90 por ciento en peso de agua.

9. Utilización de un producto cosmético según una de las reivindicaciones 1 a 6 como producto para el cuidado del cabello o producto para el tratamiento de la piel.

NOTA INFORMATIVA: Conforme a la reserva del art. 167.2 del Convenio de Patentes Europeas (CPE) y a la Disposición Transitoria del RD 2424/1988, de 10 de octubre, relativo a la aplicación del Convenio de Patente Europea, las patentes europeas que designen a España y solicitadas antes del 7-10-1992, no producirán ningún efecto en España en la medida en que confieran protección a productos químicos y farmacéuticos como tales.

Esta información no prejuzga que la patente esté o no incluida en la mencionada reserva.

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US005571518A

United States Patent [19]

Pillai et al.

[11] Patent Number: **5,571,518**[45] Date of Patent: **Nov. 5, 1996**[54] **COSMETIC COMPOSITIONS CONTAINING TRICHOLINE CITRATE**

[75] Inventors: Sreekumar Pillai, Wayne; Manisha N. Mahajan, Edgewater; Anthony V. Rawlings, Wyckoff, all of N.J.

[73] Assignee: Chesebrough-Pond's USA Co., Division of Conopco, Inc., Greenwich, Conn.

[21] Appl. No.: 546,989

[22] Filed: Oct. 30, 1995

[51] Int. Cl.⁶ A61K 7/42; A61K 7/06; A61K 7/48

[52] U.S. Cl. 424/401; 424/59; 424/70.1

[58] Field of Search 424/401, 59, 70.1

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Abstract of DE 4 910 015.

Abstract of JP 6179613.

Abstract of SU 1811403.

Abstract of EP 0 479 121.

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[57] **ABSTRACT**

Cosmetic compositions containing tricholine citrate (TCC). TCC stimulates keratinocyte growth, does not inhibit keratinocyte differentiation and increases the phospholipid levels in keratinocytes. Thus, TCC provides improved conditioning, improved youthful appearance, moisturization and improvement in the appearance of photodamaged skin.

4 Claims, No Drawings

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TABLE 5

(μ M)	Citric acid	Choline	TCC	TBC	TBC
0	100 $\pm$ 16.5	100 $\pm$ 16.5	100 $\pm$ 16.5	100 $\pm$ 16.5	100 $\pm$ 16.5
10	91.4 $\pm$ 12.7	61.6 $\pm$ 7.8*	67.9 $\pm$ 8.9*	81.1 $\pm$ 7.0	114 $\pm$ 9.9
100	77.5 $\pm$ 19.5	36.9 $\pm$ 1.6*	20.8 $\pm$ 0.3*	120.7 $\pm$ 6.7	85.2 $\pm$ 1.9
1000	74.1 $\pm$ 28.8	10.8 $\pm$ 5.5*	4.5 $\pm$ 1.9*	81.1 $\pm$ 12.0	82.8 $\pm$ 22

*statistically significant effects compared to controls.

The data indicate that both choline and TCC compete with ³H choline for incorporation into cellular phospholipids. Choline competition is expected since it is competing with the same molecule (the only difference is in the ³H label) for incorporation. The fact that TCC acts similar to choline is a direct demonstration that choline from TCC becomes available to cells for cellular phospholipid synthesis. Other esters of citric acid and citrate itself have no significant effect on choline incorporation into phospholipid fraction.

To determine whether TCC treated cells have higher levels of lipids the following experiment shown in Table 6 was conducted. Keratinocytes were treated with different concentrations of TCC for 48 hours and the lipid levels of the cells were quantified. The amounts of cholesterol, fatty acids and phospholipids were quantified and expressed as % of control. Amount of cholesterol was 7.34 $\pm$ 0.14, fatty acid was 21.4 $\pm$ 2.5 and phospholipid was 5.8 $\pm$ 1.26 μ g/ μ g cell protein.

TABLE 6

Cholesterol, fatty acid and phospholipid levels of keratinocytes treated with TCC			
(μ M)	Cholesterol	Fatty acids	Phospholipids
0	100 $\pm$ 1.85	100 $\pm$ 12.2	100 $\pm$ 21.7
1	85.3 $\pm$ 18.2	96.9 $\pm$ 8.2	77.1 $\pm$ 9.3
10	111.2 $\pm$ 24.1	83.9 $\pm$ 6.8	112.4 $\pm$ 24.4
100	78.3 $\pm$ 21.7	79.1 $\pm$ 12.4	148.2 $\pm$ 26.5*
1000	69.3 $\pm$ 3.7*	76.7 $\pm$ 16.7	187.2 $\pm$ 9.3

*statistically significant effects compared to controls.

The data in Table 6 indicates that TCC increased the phospholipid levels of keratinocytes without affecting the levels of other lipids. This is to be expected since TCC provides choline which preferentially gets incorporated into cellular phospholipids.

All the above described examples clearly demonstrate that TCC is more beneficial than other esters of citric acid in providing growth, differentiation and lipid synthetic benefits to keratinocytes. In summary, examples described here confirm that tricholine citrate is superior to other esters of citric acid and has the potential to deliver superior anti-aging, skin conditioning and UV protecting benefits. This compound has the advantage that it is composed of two essential metabolites required by the body, is broken down rapidly within skin cells to its individual components, deliver the individual benefits of its two components and is safe and non-toxic even at high concentrations.

EXAMPLE 4

This example illustrates a high internal phase water-in-oil emulsion incorporating the inventive composition.

% w/w	
TCC	0.5
1,3-dimethyl-2-hydroxybutane	0.2
Ref 92*	5
Butane 56	0.5
MgSO ₄ 7H ₂ O	0.3
Isopropyl hydroxy toluene	0.01
Parfums	qs
Water	to 100

*Ref 92 is polyoxyethylene (2) cetyl ether

EXAMPLE 5

This example illustrates an oil-in-water cream incorporating the inventive composition.

% w/w	
TCC	2
Miscel oil	4
1,3-dimethyl-2-hydroxybutane	1
Ref 56*	4
Alcol 1680*	4
Trichloroethylene	0.75
Butane-1,3-diol	3
Karthen gum	0.3
Parfums	qs
Isopropyl hydroxy toluene	0.01
Water	to 100

*Ref 56 is cetyl alcohol FCN (10)
Alcol 1680 is cetyl alcohol

EXAMPLE 6

This example illustrates an alcoholic lotion incorporating the composition according to the invention.

% w/w	
TCC	5
1,3-dimethyl-2-hydroxybutane	0.1
Ethanol	40
Parfums	qs
Isopropyl hydroxy toluene	0.01
Water	to 100

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EXAMPLE 7

This example illustrates another alcoholic lotion containing the inventive composition.

	% w/w
TCC	10
1,3-dimethyl-2-oxododecylidene	0.01
Etanol	40
Antioxidant	0.1
Perfume	q*
Water	to 100

EXAMPLE 8

This example illustrates a sunscreen cream incorporating the composition of the invention:

	% w/w
TCC	2
1,3-dimethyl-2-oxododecylidene	0.1
Silicone oil 200 cSt	7.5
Glycerolmonostearate	3
Octanoyl alcohol	1.6
Polyoxyethylene-200-aryl alcohol	1.4
Zinc Oxide	0.5
Parsol 1789	1.5
Octyl methoxycinnate (PARSOL MCK)	7
Perfume	q*
Color	q*
Water	to 100

EXAMPLE 9

This example illustrates a non-aqueous skin care composition incorporating the inventive combination.

	% w/w
TCC	5
1,3-dimethyl-2-oxododecylidene	1
Silicone gum SS-30 ¹	10
Silicone fluid 345 ²	20
Silicone fluid 344 ³	50.99
Squalene	10
Linoleic acid	0.01

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-continued

	% w/w
Cholesterol	0.05
2-hydroxy- α -octanoic acid	0.7
Vitamin E Succinate	0.5
Isobutyl oil	0.5
Etanol	2

¹A dimethyl silicone polymer having a molecular weight of at least 50,000 and a viscosity of at least 10,000 centistokes at 25° C., available from GEC
²Dimethyl silicone cyclic pentamer, available from Dow Corning Corp
³Dimethyl silicone tetramer, available from Dow Corning Corp.

It should be understood that the specific forms of the invention herein illustrated and described are intended to be representative only. Changes, including but not limited to those suggested in this specification, may be made in the illustrated embodiments without departing from the clear teachings of the disclosure. Accordingly, reference should be made to the following appended claims in determining the full scope of the invention.

What is claimed is:

1. A method of enhancing keratinocyte proliferation in skin, the method comprising applying to the skin composition comprising from 0.0001 to 50 wt. % by weight of the composition of tricholine citrate and a cosmetically acceptable vehicle.
2. A method for treating the appearance of wrinkled, dry, flaky, aged, or photodamaged skin comprising applying to the skin a composition comprising from 0.0001 to 50 wt. % by weight of the composition of tricholine citrate and a cosmetically acceptable vehicle.
3. A method of enhancing phospholipid levels in skin keratinocytes, the method comprising applying to the skin a composition comprising from 0.0001 to 50 wt. % by weight of the composition of tricholine citrate and a cosmetically acceptable vehicle.
4. A topical composition comprising from 0.0001 to 50 wt. % by weight of the composition of tricholine citrate, a cosmetically acceptable vehicle, and an additional cosmetic ingredient selected from the group consisting of an alpha hydroxy acid, a sunscreen, a tanning agent, a skin anti-wrinkling agent, an anti-dandruff agent, an anti-acne agent, a hair growth stimulant and a perfume.

* * * * *

1

3,544,684
COSMETIC COMPOSITION CONTAINING
URACIL-4-CARBOXYLIC ACID
Arthur Schorn, 18 Paul Andrich-Weg,
Bad Hamburg, Germany
No Drawing, Filed Dec. 24, 1967, Ser. No. 693,133
Claims priority, application Germany, Dec. 31, 1966,
M 72,266
Int. Cl. A61k 7/00, 27/00
U.S. Cl. 424-331

2 Claims

ABSTRACT OF THE DISCLOSURE

Uracil-4-carboxylic acid and its salts increase the softening effect of cosmetic bases.

Cosmetic preparations and devices for the treatment of aging changes of the skin have the purpose of improving the water absorbing properties of the skin and reducing the formation of wrinkles by stimulating the metabolism. The water absorption as well as the removal of wrinkles can be measured, the latter by determining the depth of the wrinkles.

A suitable method for measuring hydration changes of the skin is e.g. the determination of the resonance frequency. The principle of this measuring method consists in converting electrical oscillations of a frequency generator to mechanical oscillations and applying said mechanical oscillations by means of a pin to the skin. A second pin takes up said oscillations, converts them to electric oscillations, and transmits them to a recorder. The measured resonance frequency measures the ratio of liquid to structured substance. A decrease of these fields, e.g. in atrophied skin, increases the resonance frequency. Juvenile skin with elevated turgor has a lower resonance frequency. When the water absorbency of the skin is improved by suitable cosmetic treatment, the resonance frequency shifts to lower frequencies.

The depth of wrinkles may be measured by combining an impression method with a relief recording method. An impression is made on a suitable material and the impression is measured by means of a relief recorder which converts the movements of the impression or mold into electromagnetic oscillations and directly records the same.

It is known that an improved hydration of the skin does not necessarily or inherently smoothen the wrinkles. Numerous compositions which have been investigated influence neither the hydration nor the depth of the wrinkles. Others influence either the hydration or the depth of the wrinkles.

I have now found that uracil-4-carboxylic acid (orotic acid) and its organic and inorganic salts in conventional cream or lotion bases exert a favorable effect on the hydration as well as on the depth of the wrinkles. This is quite surprising because, heretofore, similar effects have been obtained only with placenta extracts and similar mixtures. The described effect was shown only by the uracil-4-carboxylic acid compounds themselves but not by the cosmetic base or additives used.

Suitable cosmetic bases for incorporation of the uracil-4-carboxylic acid and its salts are conventional water-in-oil emulsions, oil-in-water emulsions and/or gelatinous preparations, e.g., of mucilage, or synthetic thickening agents such as polyvinyl pyrrolidone, methyl cellulose, carbomethyl cellulose. Suitable water-in-oil emulsions are those on the basis of hydrocarbons, fats, lanolin and the like. Oil-in-water emulsions are generally made from saponified fatty acid salts and esters, orthophosphoric acid esters, waxes, lanolin tetraglycol ethers, etc.

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The proportion of uracil-4-carboxylic acid in cosmetic bases will be generally about 0.5 to 10 percent by weight.

The effect of the composition according to the invention on the hydration of the skin and the depth of the wrinkles depends on the frequency of application and is always observable after several days' use. The effect is present still 24 hours after the last application; this shows that the composition penetrates into, and influences, also the deeper layers of the skin.

When determined as described heretofore, the novel cosmetic composition produces a long-term reduction of the wrinkle depth which is about 50% of the short-term reduction produced by preparations that have a purely physical tightening effect. Such preparations, e.g., those on the basis of chicken egg white, serum albumin and globulin, reduce, after drying of the applied solution, the depth of wrinkles by about 30 percent. However, this effect remains only a short time and is removed by washing.

Uracil-4-carboxylic acid is found in milk as precursor of the pyrimidines and nucleic acid. It has particularly a growth stimulating effect, which is utilized therapeutically in oral and parenteral pharmaceutical compositions. Also in larger dosages, the compound is readily tolerated, and the skin is not affected even by prolonged and regular use.

The uracil-4-carboxylic acid is difficultly soluble in water. Higher concentrations can be obtained by addition of a coupling agent, e.g., methyl glucamine.

Some cosmetic preparations according to the invention are given in the following examples. All parts are given by weight.

EXAMPLE 1

Water-containing lanolin alcohol ointment	90.0
Uracil-4-carboxylic acid	5.0
Liquid paraffin	5.0

EXAMPLE 2

Cetylstearyl alcohol	6.0
Ointment bases of tert. ester of orthophosphoric acid and lanolin alcohol tetraglycol ether	10.0
Glycerol	5.0
Choline salt of uracil-4-carboxylic acid	6.0
Water ad 100.0	

EXAMPLE 3

Tragacanth	5.0
Glycerol	5.0
Uracil-4-carboxylic acid	3.0
Methyl glucamine	4.0
p-Oxybenzoic acid ester (preservative)	0.2
Water ad 100.0	

EXAMPLE 4

Stearic acid	18.0
Almond oil	2.0
Cetyl alcohol	0.6
Triethanolamine	3.0
Glycerol	8.0
Uracil-4-carboxylic acid	3.0
p-Oxybenzoic acid ester (preservative)	0.2
Water ad 100.0	

EXAMPLE 5

Beeswax (bleached)	10.0
Peanut oil	90.0
Spermaceti	3.0
Lanolin	3.0
Glycerol	3.0
Uracil-4-carboxylic acid	4.0
Methylglucamine	5.0
p-Oxybenzoic acid ester (preservative)	0.2
Water ad 100.0	

3 If compositions containing urea-4-carboxylic acid or its salts are to be used for face masks, e.g., foam masks, they are used preferably as aerosols with addition of a foam stabilizer such as a salt of a condensation product of a saturated fatty acid of medium chain length and sarcosine.

Claims:

1. A cosmetic preparation for increasing hydration of the skin and producing a long-lasting reduction of wrinkle depth consisting essentially of an aqueous cosmetic cream or lotion base having incorporated therein about 0.5 to 10 percent by weight of a member of the group consisting of urea-4-carboxylic acid and the choline salt of said acid.

2. The cosmetic preparation of claim 1 containing also methyl glucamides in an amount sufficient to increase

4 the solubility of the urea-4-carboxylic acid component in said aqueous cosmetic base.

References Cited

UNITED STATES PATENTS

2,340,776 2/1944 Stambovsky 424-310X
3,112,890 1/1964 Pergman, Jr. 424-351X

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10 Harry: Modern Cosmetology, 1935, p. 147.

ALBERT T. MEYERS, Primary Examiner

D. R. ORR, Assistant Examiner

U.S. Cl. X.R.

424-168

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121

124 122

**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES**

2020/
Bogotá, D.C.,

Doctor
Juan Pablo Cadena Sarmento
Apoderado
COLGATE – PALMOLIVE COMPANY

Oficio N° 4696

REFERENCIA	Radicación	03 89070
	Trámite	002
	Evento	001
	Actuación	430
	Folios	007

Como resultado del examen de patentabilidad de la solicitud de patente de invención N° 03 89070, realizado según el artículo 45 de la decisión 486 de la comisión de la Comunidad Andina, se notifica:

1. DOCUMENTOS ESTUDIADOS:

- El petitorio de la solicitud nacional en donde se hace mención al documento de prioridad reivindicado US09/803,174 de fecha 09/03/2001.
- La solicitud internacional que corresponde a CAPITULO y el petitorio PCT que se encuentra en los folios 4 a 31.
- El reporte de búsqueda internacional junto con su traducción correspondiente en los folios 32 a 34.
- La traducción de la solicitud internacional que consta de un resumen y un capítulo descriptivo y se encuentra en los folios 35 a 51.
- Los ejemplos que ilustran la invención en los folios 52 a 61.
- El capítulo reivindicatorio conformado por las cláusulas 1 a 24 tal como fue presentado en la solicitud original en fase internacional que se encuentra en los folios 62 a 66 junto con la traducción correspondiente.
- El reporte del examen preliminar internacional que consta de 5 páginas y 2 de anexos que se encuentra en los folios 68 a 74 junto con su traducción correspondiente que se encuentra en los folios 75 a 82.
- El primer examen de forma realizado a la solicitud en fase nacional de oficio No. 9990, que se encuentra en el folio 85.
- La respuesta al primer examen de forma, allegada mediante memorial de fecha 18/02/2004 que se encuentra en los folios 88 a 98.
- La solicitud de examen de patentabilidad junto con el pago de la tasa correspondiente, allegada mediante memorial de fecha 14/12/2005, que se encuentra en los folios 100 y 101.
- El objeto de estudio para efectos del presente examen corresponde a las reivindicaciones 1 a 10 de los folios 81 y 82 y a las reivindicaciones 11 a 25 de los folios 64 a 66.

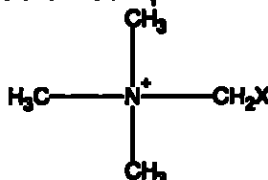
2. OBJETO DE LA INVENCION:

La solicitud hace referencia a un ***“Composición cosmética para hidratar la piel que comprende una sal de collina y un portador compatible con la piel”***

- **Reivindicación 1 a 3:**

Se reivindica una composición de jabón en barra con un alto contenido de agua en el rango de 14 – 30 % en peso, que comprende:

- a) Una cantidad humectante de un compuesto de estructura A



Y mezclas del mismo, donde cuando X no lleva una carga negativa, el compuesto es una sal, y

- b) Un portador compatible con la piel que comprende una cantidad efectiva limpiadora de un surfactante o una mezcla de surfactantes.

En particular se reivindica la composición de la cláusula 1 en donde X es CH₂OH y la composición comprende menos de aproximadamente 0.05% en peso o más de aproximadamente 15% en peso de un ácido orgánico alifático fisiológicamente compatible.

Y adicionalmente la composición comprende un emoliente diferente al compuesto de la estructura A.

- **Reivindicaciones 4 a 6:**

Se reivindica un proceso par aumentar el nivel de humedad de la piel que comprende la aplicación de la composición de la reivindicación 1 a la piel. En particular se reivindica el proceso en donde X es CH₂OH.

Y el proceso en donde la composición comprende menos de aproximadamente 0.05% en peso o más de aproximadamente 15% en peso de un ácido orgánico alifático fisiológicamente compatible.

- **Reivindicaciones 7 a 10 y 22 a 25:**

Se reivindica una barra limpiadora para la piel que comprende:

- a) por lo menos aproximadamente 5% en peso de jabón
- b) una cantidad humectante de un compuesto de estructura A
- c) aproximadamente 14-30% en peso de agua

En particular se reivindica la composición en barra limpiadora que comprende 50 – 84% en peso de jabón, 15% en peso de agua y adicionalmente un agente suavizante.

- **Reivindicaciones 11 a 19:**

La composición de acuerdo con la reivindicación 2 caracterizada porque dicha composición es un sólido, un líquido o un gel, una crema o una loción.

Adicionalmente se reivindica una composición caracterizada porque se encuentra una cantidad efectiva limpiadora de un surfactante o una mezcla de surfactantes.

En particular se reivindica la composición caracterizada porque tiene una cantidad de

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un emoliente efectivo para acondicionar la piel, dicho emoliente es diferente que dicho compuesto o mezcla de compuestos y se selecciona del grupo que consiste en un agente hidratante, un agente oclusivo y un humectante.

- **Reivindicaciones 20 y 21:**

Se reivindica el proceso para incrementar el nivel de hidratación de la piel caracterizado porque consta en aplicar la composición de la reivindicación 1 sobre la piel.

Se reivindica el proceso caracterizado porque en la composición hay menos de 0,05% en peso o más de alrededor de 15% en peso de un ácido orgánico alifático compatible fisiológicamente.

Una vez catalogada la invención ésta se clasificó en la sección: A 61 K ⁷/₄₈ de la Clasificación Internacional de Patentes.

3. CLARIDAD DE LA SOLICITUD:

El artículo 30 de la Decisión 486 contempla que *"Las reivindicaciones definirán la materia que se desea proteger mediante la patente. Deben ser claras y concisas y estar enteramente sustentadas por la descripción"*.

- Esta Dependencia se permite señalar que la composición farmacéutica reivindicada en la cláusula (1) no permite realizar una determinación inequívoca de los elementos que constituyen la formulación.

Si bien es cierto se establece en la cláusula (1) que se pretende protección para las composiciones que contengan un agente hidratante de un compuesto de estructura A en un portador farmacéuticamente aceptable en las cláusulas 2 a 10 se determina que pueden adicionarse opcionalmente otro tipo de excipientes, hecho este que no permite identificar la característica esencial que define con precisión e idoneidad la formulación inventada. Por el contrario, el uso de términos amplios como "portador aceptable" no permite determinar el límite real y el alcance de la invención y las características esenciales que constituyen un salto cualitativo en la regla técnica en formulaciones para humectar la piel.

En consecuencia, se requiere al interesado para que precise las características esenciales de la formulación, los elementos que la componen y sus proporciones que hacen a la composición clara, concisa y suficientemente definida.

Esta situación no permite realizar una interpretación inequívoca del objeto real de la invención y genera falta de claridad en torno a la característica esencial de la invención y a los elementos y proporciones de ellos que constituyen la composición farmacéutica.

- De otro lado, es bien sabido que en formulación de productos farmacéuticos cobra importancia mayor las propiedades fisicoquímicas de los elementos que intervienen e interactúan en el sistema de entrega. De esta forma al listarse por categoría farmacéutica los posibles excipientes farmacéuticos (surfactantes, emolientes, ácidos orgánicos, humectantes) sin que se establezca la composición cuali-cuantitativa del sistema que realmente fue objeto de investigación farmacotécnica se están extrapolando características esenciales que no fueron objeto de representación suficiente en el aparte descriptivo de la solicitud.

En este mismo sentido, resulta arriesgado y especulativo afirmar que cualquiera de los sistemas que se obtienen de combinar las diferentes opciones definidas a lo largo del capítulo reivindicatorio revela las mismas características esenciales: físicas, químicas y farmacotécnicas sin que hubiese sido objeto de comprobación y sustentación suficiente, y que por el solo hecho de su indicación a lo largo del capítulo reivindicatorio sirve para formular una composición de jabón en barra. Por esta razón se requiere al interesado para que precise el verdadero objeto de su invención señalando las características esenciales que lo hacen nuevo e inventivo con respecto al arte previo.

4. DETERMINACIÓN DEL ESTADO DE LA TÉCNICA:

Consultadas las fuentes de información con que cuenta este despacho, se encontraron los siguientes documentos, anteriores a la fecha de presentación de la solicitud en estudio - 09.03.2001-, relacionados con la materia técnica reivindicada:

Nº	Documento	Título	Fecha de Publicación
D1	US6120779	"Use of partial and complete salts of choline and carboxylic acids for the treatment of skin disorders"	19/09/2000
D2	ES2099058	"Producto cosmético y procedimiento para su utilización"	16/05/1997
D3	US5571518	"Cosmetic compositions containing tricholine citrate"	5/11/1996
D4	US3544684	"Cosmetic composition containing uracil-4-carboxylic acid"	01/12/1970

Anterioridades D1, D2, D3 y D4 en los folios 110 a 123.

5. EVALUACIÓN DE LOS REQUISITOS DE PATENTABILIDAD:

El artículo 14 de la decisión 486 de la comisión de la comunidad andina establece que: *"Los países miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento, en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial"*

En cumplimiento del artículo 14 de la decisión 486 de la comisión de la comunidad andina, se procedió a evaluar los requisitos de novedad, nivel inventivo y aplicación industrial con el fin de establecer la patentabilidad de la invención reivindicada en la solicitud en estudio.

5.1 Evaluación de la NOVEDAD:

El artículo 16 de la decisión 486 dispone: *"Una invención se considerará nueva cuando no está comprendida en el estado de la técnica."*

El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida.

Sólo para el efecto de la determinación de la novedad, también se considerará dentro del estado de la técnica, el contenido de una solicitud de patente en trámite ante la oficina nacional competente, cuya fecha de presentación o de prioridad fuese anterior a la fecha de presentación o de prioridad de la solicitud de patente que se estuviese examinando, siempre

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que dicho contenido esté incluido en la solicitud de fecha anterior cuando ella se publique o hubiese transcurrido el plazo previsto en el artículo 40".

Teniendo en cuenta el objeto de la invención y la materia descrita en las anterioridades D1, D2, D3 y D4 esta Dependencia se permite señalar que existe afectación del requisito de novedad, teniendo en cuenta que la característica esencial reclamada por la solicitud en estudio se encuentra ampliamente divulgada en las publicaciones en comento, como a continuación se evidencia en el cuadro anexo.

La solicitud reclama protección para una formulación de jabón en barra con un alto contenido en agua que esencialmente contenga:

- a) una cantidad humectante de un compuesto de estructura A.
- b) un portador compatible de la piel que comprende una cantidad efectiva limpiadora de un surfactante de una mezcla de surfactantes.

Y adicionalmente un ácido orgánico alifático y un emoliente diferente al compuesto de la estructura A.

Como las anterioridades ya contemplaban la combinación de un emulgente catiónico (sal de tetralquil-amonio) con otros surfactantes o agentes tensioactivos, el concepto inventivo reclamado por la solicitud en comento ya se encontraba divulgado en el estado de la técnica a la fecha de presentación de la solicitud en estudio.

La anterioridad D1 por ejemplo definía con precisión la combinación de colina (tensioactivo catiónico) con ácidos y la adición de otros agentes surfactantes, composición esta que se emplea específicamente para el cuidado de la piel.

Las anterioridades D2, D3 y D4 también señalan la conveniencia de formular colina con surfactantes compatibles para la protección del estrato córneo de la piel como un tratamiento efectivo en contra de la pérdida de humedad y elasticidad de la misma así como para mejorar la apariencia del cabello.

De esta forma, siendo que el concepto inventivo de la formulación farmacéutica es idéntico al que se publica en las anterioridades en comento, resulta evidente que existe afectación del requisito de **NOVEDAD**.

Solicitud 03-99070 Cláusulas 1 a 3 Formulación de jabón en barra con un alto contenido en agua que esencialmente contiene a) Una cantidad humectante de un compuesto de estructura A CH₃ H₃C—N⁺—CH₂X CH₃ (Tensioactivo catiónico) Sal de tetralquil-amonio X es CH₂OH b) Un portador compatible de la piel que comprende una cantidad efectiva limpiadora de un surfactante de una mezcla de surfactantes Y adicionalmente un ácido orgánico alifático y un emoliente diferente al compuesto de la estructura A Cláusulas 7 a 10 y 22 a 25 Se reivindica una barra limpiadora para la piel que comprende d) por lo menos aproximadamente 5% en peso de jabón e) una cantidad humectante de un compuesto de estructura A f) aproximadamente 14-30% en peso de agua En particular se reivindica la composición en barra limpiadora que comprende 50 – 84% en peso de jabón, 15% en peso de agua y adicionalmente un agente suavizante Cláusulas 11 a 19 La composición de acuerdo con la reivindicación 2 caracterizada porque dicha composición es un sólido, un líquido o un gel, una crema o una loción Adicionalmente se reivindica una composición caracterizada porque se encuentra una cantidad efectiva limpiadora de un surfactante o una mezcla de surfactantes En particular se reivindica la composición caracterizada porque tiene una cantidad de un emoliente efectivo para acondicionar la piel, dicho emoliente es diferente que dicho compuesto o mezcla de compuestos y se selecciona del grupo que consiste en un agente hidratante, un agente oclusivo y un humectante	Documento D1 US6120779 El documento revela una formulación cosmética para la piel que comprende sales de colina (tensioactivo anfótero) con ácidos mono, di, tri y polycarboxílicos en un porcentaje de 0,001 a 50% que se combinan con ácidos poliméricos que presenta un efecto dual emulsificante-estabilizante o solubilizante
	Documento D2 ES2099058 La publicación comprende un producto cosmético que contiene agua y una combinación de I) 0.1 y un 25% en peso de una sal de colina de un ácido inorgánico o de un ácido carboxílico o de un homopolímero o copolímero de ácido poliacrílico II) entre 0,1 y 10% en peso de un ácido orgánico alifático fisiológicamente compatible En particular se especifica que la composición para el cuidado de la piel contiene como aditivos adicionales III) entre 0,01 y 40% en peso de agentes tensioactivos aniónicos, anfóteros o no iónicos o su mezcla IV) Y un 50 a 90% en peso de agua
	Documento D3. US5571548 La anterioridad enseña sobre composiciones que contienen tricollin-citrato (tensioactivo catiónico) que es un estimulante del crecimiento córneo en combinación con Brj 92 (alcohol oléico polietoxilado) (tensioactivo de tipo no iónico)
	Documento D4. US3544684 La publicación señala sobre la formulación de una preparación cosmética para incrementar la hidratación de la piel que consiste en una crema o loción que se compone de ácido uracil-4-carboxílico (surfactante anfótero) y sales de colina. Tal formulación también puede contener metil-glucamina en una cantidad suficiente para incrementar la solubilidad del ácido

En consecuencia, siendo que las características esenciales de la composición reclamada se encuentran reveladas por las publicaciones D1, D2, D3 y D4 que resultan idénticas a las publicadas en el estado de la técnica, se considera que la materia reivindicada no cumple con uno de los requisitos establecidos por la norma andina para acceder al derecho de exclusividad.

En conclusión los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

Nº	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	US8120779	1 a 25	Novedad
D2	ES2099058	1 a 25	Novedad
D3	US5571518	1 a 25	Novedad
D4	US3544684	1 a 25	Novedad

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de la notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo 5 del título primero de la Circular Única N° 10 de 2001.


Álix Carmona Céspedes de Vergel
Jefe de la División de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista, de fecha 20 ABR 2002

CONCEPTO TÉCNICO Número 0602	EXAMINADOR TÉCNICO Código 202044
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EXAMEN TÉCNICO DE F NDO			
Nº Radicación	03-89070 Solicitud PCT Cap II	Fecha de presentación	08/10/2003
Nº Prioridad	US09/803,174	Fecha de Prioridad	09/03/2001

Palabras clave	Composición Humectante	Colina	Tensioactivos catiónicos
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CLASIFICACIONES INTERNACIONALES DE BÚSQUEDA
A61K7/48

DOCUMENTOS CORRESPONDIENTES EN OTROS PAÍSES	
Patente Original	WO02072062

BASES DE DATOS CONSULTADAS	
ESPACENET	EPOLINE

INFORMES DE EXÁMENES EN OTRAS OFICINAS		
Oficina	Fecha	Reivindicaciones
EPO		

ANTERIORIDADES ENCONTRADAS		
Documento	Relevancia	Reivindicaciones afectadas
US6120779	1 a 25	Novedad
ES2099058	1 a 25	Novedad
US5571518	1 a 15	Novedad
US3544684	1 a 25	Novedad

LITERATURA NO PATENTES		
Documento no Patentes	Relevancia	Relv. Afectadas

Observaciones	
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Fecha del examen	09/04/2007