ESTTA Tracking number:

ESTTA872929

Filing date:

01/24/2018

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	91238747	
Party	Plaintiff Dennis F. Gross	
Correspondence Address	Christine M. Baker Mintz Levin Cohn Ferris Glovsky & Popeo, P.C. One Financial Center Boston, MA 02111 UNITED STATES Email: IPDocketingBos@mintz.com, cbaker@mintz.com, ahan@mintz.com	
Submission	Motion to Amend Pleading/Amended Pleading	
Filer's Name	Christine M. Baker	
Filer's email	cbaker@mintz.com, ahan@Mintz.com, mmims@mintz.com	
Signature	/cmbaker/	
Date	01/24/2018	
Attachments	AmendedNoticeofOppositionforFERULACPEEL.pdf(135796 bytes) Opposition Exhibits A-C.PDF(2203041 bytes) OppositionExhibitsD-I.pdf(1836916 bytes) OppositionExhibitsJ-M.pdf(2157588 bytes) ExhibitN.pdf(1971898 bytes) OppositionExhibitsO-Q.pdf(449353 bytes)	

Attorney Docket: 049966-407-059

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

In the Matter of App	olication Serial No.	87/202675	
for FERULAC PEE	L		
Published in the Off	<i>îcial Gazette</i> on Sep	otember 5, 2	2017
		:	
Dennis F. Gross		:	
	Opposer,	:	
v.		:	APPLICATION NO. 87/202675
		:	OPPOSITION NO.: 91238747
Sesderma S.L.		:	
		:	
	Applicant.	:	

AMENDED NOTICE OF OPPOSITION

Commissioner for Trademarks P.O. Box 1451 Alexandria, VA 22313-1451

Sir/Madam:

Dennis F. Gross ("Opposer"), a United States citizen, with a business address at 444 Madison Avenue, Suite 500 New York, NY 10022 believes he will be damaged by the registration of U.S. Application Serial No. 87/202675 for the mark FERULAC PEEL for the following goods:

Non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid, in International Class 3; and

Medicated skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid, in International Class 5,

which was filed by Sesderma, S.L. ("Applicant") and published for opposition in the *Official Gazette* on September 5, 2017 and hereby opposes the same.

Pursuant to Trademark Act Sections 1, 2 and 45 and Trademark Act Section 2(e)(1) and predicated upon the following grounds, Opposer alleges the following:

- Opposer is the creator of the award winning and global skin care brand DR DENNIS
 GROSS®. For several years, Opposer has been engaged in the manufacture and sale of
 skin care peels containing ferulic acid.
- 2. Opposer has regularly appeared on television shows such as Dr. OZ, The Today Show, The Doctors, CBS: The Early Show and on CNN to discuss skin health and has been lauded for his innovative approach to skin care and skin care peels containing ferulic acid by major magazines, including but not limited to, Vogue, Elle, Harper's Bazaar, and The New York Times Magazine.
- 3. Opposer owns Registration No. 5,283,495 for the mark FERULIC + RETINOL WRINKLE RECOVERY PEEL for non-medicated skin care preparations containing ferulic acid and retinol. As the attached Registration Certificate indicates, the Trademark Office required

Opposer to disclaim the terms FERULIC and PEEL apart from Opposer's mark FERULIC + RETINOL WRINKLE RECOVERY PEEL. See Exhibit A.

- Upon information and belief, the Applicant is a limited liability company organized under the laws of Spain with an address of Massamagrell, 3 – Rafelbuñol, Polígono Industrial Rafelbuñol, Valencia, Spain E-46138.
- 5. On information and belief, Applicant is involved in the manufacture and sale of skin care products, including a ferulic peel.
- 6. On information and belief, Applicant sells a ferulic peel and uses the term ferulac peel in connection with its ferulic peel.
- 7. On information and belief, Applicant is one of Opposer's competitors in the United States in the skin care product market.
- 8. Applicant filed an application to register the mark FERULAC PEEL for non-medicated exfoliating preparations for skin; skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid, in Class 003 and for medicated skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid, in Class 005 on October 13, 2016 and the application was assigned Serial No. 87/202675. See Exhibit B.

- 9. In an Office Action dated December 17, 2016, the Examining Attorney denied registration of the mark FERULAC PEEL on that ground that it merely describes a feature, ingredient, characteristic, purpose, function and/or use of Applicant's goods under Trademark Act Section 2(e)(1) and appears to be generic in connection with the identified goods and, therefore, incapable of functioning as a source-identifier for applicant's goods. See Exhibit C.
- 10. In the refusal dated December 17, 2016, the Examining Attorney states that the term "ferulac" is the phonetic equivalent of "ferulic" and that, according to *The American Heritage Dictionary of the English Language Dictionary*, the word "PEEL" is "a chemical peel," which is the removal of skin blemishes or wrinkles by applying a caustic chemical, such as an acid, that produces a mild, superficial burn. The Examining Attorney concludes that the wording FERULAC PEEL merely describes an ingredient, quality, characteristic, or feature of applicant's goods, namely, the applicant's goods comprise chemical peels or treatments for the removal of problematic skin with ferulic acid as an ingredient. See Exhibit C.
- 11. In the Applicant's response to the Section 2(e)(1) refusal dated May 23, 2017, the applicant acknowledges that FERULAC PEEL is a slight and intentional misspelling of the generic term FERULIC PEEL and that the Applicant intentionally misspells generic terms which are active ingredients in its products. See Exhibit D.

- 12. In its response dated May 23, 2017, Applicant states that a search on Google.com for FERULAC did not pick up the misspelling of FERULIC and suggest the correct spelling. See Exhibit D.
- 13. On information and belief, a search on Google.com for "what is ferulac acid" uncovered the misspelling of FERULAC and suggested "what is ferulic acid." The search uncovered over 924,000 records with this term pertaining to skin care and skin care products. These results indicate that FERULAC is a misspelling of a generic term that is widely used as the name of an active ingredient in skin care preparations, which include chemical peels for skin. See Exhibit E.
- 14. In Applicant's response dated May 23, 2017, Applicant states that consumers will be able to identify the difference between Applicant's distinctive mark(s) and the generic terms for the ingredients therein. On information and belief beauty and medical spas, who are sophisticated consumers, refer to ferulic acid as "ferulac acid" and offer skin peels that include "ferulac acid" as an ingredient, and use "ferulac peel" in a generic manner. Even sophisticated consumers perceive "ferulac peel" as generic wording for a chemical peel containing ferulic acid. See Exhibit F.
- 15. In an Office Action dated June 16, 2017, the Examining Attorney required a disclaimer of the generic wording PEEL. See Exhibit G.
- 16. On June 28, 2017, the Applicant filed a response to the Office Action dated June 16,2017 disclaiming the word PEEL and claiming that the mark FERULAC PEEL has

- become distinctive of the Applicant's goods under Trademark Act Section 2(f) based on Applicant's alleged use of FERULAC PEEL for at least (5) five years. See Exhibit H.
- 17. The Applicant has attempted to register the mark FERULAC on two previous occasions. On January 26, 2009 and December 22, 2015, Applicant filed applications to register the mark FERULAC for cosmetics in Class 003 and pharmaceuticals for skin care and treatment in Class 005 and cosmetics; beauty serums; facial beauty serum; non-medicated skin care preparation namely, body and facial mist; beauty ampoules; moisturizing creams; facial creams; skin care preparations, namely, chemical peels for skin in Class 003, which were assigned Serial No. 79/071102 and 86/857290. See Exhibits I and J.
- 18. In Office Actions dated August 28, 2009 and March 11, 2016 for Applicant's Applications, Serial Nos. Serial No. 79/071102 and 86/857290, the assigned Examining Attorneys denied registration of the proposed mark FERULAC on the ground that it is the equivalent and novel spelling of the word "ferulic" and merely describes a feature, ingredient, characteristic, purpose, and/or function of Applicant's goods, namely, ferulic acid. In support of the refusal, the Examining Attorneys attached to the Office Actions a definition of "ferulic acid" from the Merriam-Webster online dictionary, a Wikipedia entry for ferulic acid discussing its use in cosmetics and skin care, article abstracts from PubMed.com that discuss the cosmetic uses of ferulic acid and the use of ferulic acid in skin care, internet evidence and links establishing that the wording "FERULIC" means "Pertaining to, or derived from, asafetida (Ferula asafoetida); as, ferulic acid," and screenshots from Applicant's website, located at www.sesdermausa.com, that Applicant offers cosmetics and skin care products containing ferulic acid. See Exhibits K and L.

- 19. On October 11, 2016, the Office issued a Notice of Abandonment abandoning Applicant's Application Serial No. 86/857290 due to Applicant's failure to file a response to the refusal dated March 11, 2016. See Exhibit M.
- 20. In a Final Office Action dated March 23, 2010 for Application Serial No. 79/071102, the Examining Attorney denied registration of the mark FERULAC on the ground that it is a novel spelling of the word FERULIC, which is a type of acid that is a common ingredient in products for treating the skin and cosmetics used for anti-aging purposes. In support of the refusal, the Examining Attorney attached to the Final Office Action articles from LASplash.com, BulkActives.com and TruthInAging.com indicating that the prevailing opinion is that ferulic acid is an important active ingredient in products for wrinkle and age spot reduction. The Examining Attorney stated that "Consumers who are seeking products for this purpose are likely to know this and will be looking for labels that identify this ingredient. Consumers will see FERULAC and think that the mark identifies the ingredient ferulic acid." See Exhibit N.
- 21. On April 22, 2011, the Office issued a Notice of Abandonment abandoning Applicant's Application Serial No. 79/071102 due to Applicant's failure to file a response to the Final Office Action dated March 23, 2010. See Exhibit O.

COUNT ONE: GENERICNESS

- 22. Opposer realleges and incorporates herein by reference the allegations in all other paragraphs contained herein.
- 23. On information and belief, FERULAC is the phonetic equivalent of the word FERULIC and refers to a type of acid that is found in plant cell wall components and is the main ingredient in the Applicant's peels, as evidenced by Applicant's description of goods.

 Ferulic acid is a favorite ingredient of dermatologists and skin care companies and is used in many skin care products including the Opposer's FERULIC + RETINOL WRINKLE RECOVERY PEEL. See Exhibit P.
- 24. On information and belief, the term "Ferulic" is commonly used in connection with skin care products. Because of this, consumers will immediately perceive FERULAC PEEL as an intentional misspelling of the generic term FERULIC PEEL or simply believe that FERULAC PEEL is a FERULIC PEEL.
- 25. On information and belief, the wording FERULIC PEEL and FERULIC PEELS are generic terms that are widely used in connection with skin care products and the skin care industry. See the attached Google search results, identified as Exhibit Q, for the wording FERULIC PEEL and FERULIC PEELS which uncovered over 484,000 and 350,000 results respectively and mention ferulic peels by Opposer and other well know skin care companies.

- 26. On information and belief, the term FERULAC PEEL is a generic term incapable of functioning as a trademark because it is a slight misspelling of the term FERULIC PEEL, which is a standard term in the skin care industry designating a type of skin care peel that includes ferulic acid. The term FERULAC PEEL cannot be exclusively appropriated by Applicant as a trademark for a ferulic peel because it is incapable of identifying Applicant as a source of origin.
- 27. FERULAC PEEL is a slight and intentional misspelling of the generic term FERULIC PEEL, which is the common commercial name for the Applicant's goods, namely, peels containing ferulic acid as an ingredient.
- 28. Registration for the mark FERULAC PEEL on the Principal Register will inhibit the Opposer and Applicant's competitors from using the wording FERULIC PEEL and FERULIC PEELS to describe peels containing ferulic acid and using the words FERULIC and PEEL or PEELS in marks for skin care peels. In essence, a registration for the mark FERULAC PEEL will give the Applicant a monopoly over the generic term FERULIC PEEL for skin peels and skin care preparations and enable the Applicant to bring harassing infringement suits and oppositions.
- 29. Opposer will be damaged by Applicant's registration of FERULAC PEEL as the prima facie effect of such registration will interfere with use by Opposer and others in the skin care industry in the exercise of their right to use the term FERULIC PEEL and FERULIC

PEELS in connection with (a) skin care peels comprising ferulic acid. Registration of FERULAC PEEL will inhibit the Opposer's right to compete with the Applicant.

30. In view of the generic nature of the term FERULAC PEEL and the widespread use of its correct spelling, FERULIC PEEL, by third parties, the Applicant is not entitled to registration of the term FERULAC PEEL.

COUNT TWO: DESCRIPTIVENESS

- 31. Opposer realleges and incorporates herein by reference the allegations in all other paragraphs contained herein.
- 32. Applicant's alleged mark FERULAC PEEL is also merely descriptive within the meaning of Trademark Act Section 2(e)(1) because it merely describes an ingredient, quality, characteristic or feature of Applicant's goods.
- 33. FERULAC PEEL, for non-medicated exfoliating preparations for skin; skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid and medicated skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid, is not entitled to registration on the Principal Register because it is merely descriptive under Trademark Act Section 2(e)(1).

COUNT THREE: MARK HAS NOT ACQUIRED DISTINCTIVENESS

34. Opposer realleges and incorporates herein by reference the allegations in all other paragraphs contained herein.

35. The Applicant has not established and is unable to establish that FERULAC PEEL has

become distinctive of Applicant's goods. Applicant also will not be able to establish that

FERULAC PEEL has acquired secondary meaning as a source of origin.

36. The term FERULAC PEEL has not acquired distinctiveness as a trademark for the

Applicant's proposed goods and is therefore not entitled to registration on the Principal

Register under Trademark Act Section 2(f).

WHEREFORE, Opposer believes that he will be damaged by the registration of U.S.

Application Serial No. 87/202675 for the mark FERULAC PEEL and, therefore, respectfully

requests that this opposition be sustained in favor of Opposer.

Respectfully submitted,

By:

Christine M. Baker, Esq.

MINTZ, LEVIN, COHN, FERRIS

GLOVSKY and POPEO, PC

One Financial Center

Boston, MA 02111

(617) 542-6000

(617) 542-2241

Attorneys for Opposer,

Dennis F. Gross

Dated: January 24, 2018

CERTIFICATE OF SERVICE

I hereby certify that a true and complete copy of the foregoing NOTICE OF OPPOSITION has been served on Applicant's counsel of record by mailing said copy on January 24, 2018 via First Class Mail to: Christian Sanchelima, Esq., Sanchelima & Associates, P.A., 235 SW Le Jeune Road, Miami, FL 33134 and via email to: chris@sanchelima.com; thr@sanchelima.com; legal@sanchelima.com; jesus@sanchelima.com

Christine M Baker

EXHIBIT A

EXHIBIT A

Exhibit A

United States of America United States Patent and Trademark Office

FERULIC + RETINOL WRINKLE RECOVERY PEEL

Reg. No. 5,283,495

Dennis F. Gross (UNITED STATES INDIVIDUAL)

444 Madison Avenue, Suite 802

Registered Sep. 12, 2017

New York, NY 10022

Int. Cl.: 3

CLASS 3: Non-medicated skin care preparation containing ferulic acid and retinol; skin care

preparations, namely, skin peels containing ferulic acid and retinol

Trademark

FIRST USE 11-28-2015; IN COMMERCE 11-30-2015

Principal Register

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY

PARTICULAR FONT STYLE, SIZE OR COLOR

No claim is made to the exclusive right to use the following apart from the mark as shown:

"FERULIC + RETINOL", "WRINKLE" AND "PEEL"

SER. NO. 86-852,803, FILED 12-17-2015

MARIA VICTORIA SUAREZ, EXAMINING ATTORNEY



Joseph Matol

Performing the Functions and Duties of the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

EXHIBIT B

EXHIBIT B

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

Trademark/Service Mark Application, Principal Register

Serial Number: 87202675 Filing Date: 10/13/2016

The table below presents the data as entered.

Impu Pfeld	Entored	
SERIAL NUMBER	87202675	
MARK INFORMATION		
*MARK	FERULAC PEEL	
STANDARD CHARACTERS	YES	
USPTO-GENERATED IMAGE	YES	
LITERAL ELEMENT	FERULAC PEEL	
MARK STATEMENT	The mark consists of standard characters, without claim to any particular font style, size, or color.	
REGISTER	Principal	
APPLICANT INFORMATION		
*OWNER OF MARK	SESDERMA, S.L.	
INTERNAL ADDRESS	Massamagrell, 3 - Rafelbuñol	
*STREET	Polígono Industrial Rafelbuñol	
*CITY	Valencia	
*COUNTRY	Spain	
*ZIP/POSTAL CODE (Required for U.S. applicants)	E-46138	
PHONE	305-447-1617	
FAX	305-445-8484	
EMAIL ADDRESS	tm@sanchelima.com	
LEGAL ENTITY INFORMATION		
TYPE	limited liability company	
STATE/COUNTRY WHERE LEGALLY ORGANIZED	Spain	
GOODS AND/OR SERVICES AND BA	SIS INFORMATION	
INTERNATIONAL CLASS	003	
*IDENTIFICATION	non-medicated exfoliating preparations for skin: Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulac acid.	
FILING BASIS	SECTION 1(a)	
FIRST USE ANYWHERE DATE	At least as early as 05/30/2010	
FIRST USE IN COMMERCE DATE	At least as early as 05/30/2010	

SPECIMEN FILE NAME(S)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
SPECIMEN DESCRIPTION	Image of the mark as used in commerce as found affixed to the goods.
INTERNATIONAL CLASS	005
*IDENTIFICATION	medicated skin care preparations, namely, chemical peels for skin; all of foregoing containing ferulic acid
FILING BASIS	SECTION 1(a)
FIRST USE ANYWHERE DATE	At least as early as 05/30/2010
FIRST USE IN COMMERCE DATE	At least as early as 05/30/2010
SPECIMEN FILE NAME(S)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
SPECIMEN DESCRIPTION	Image of the mark as used in commerce as found affixed to the goods.
ATTORNEY INFORMATION	
NAME	Christian Sanchelima, Esq.
ATTORNEY DOCKET NUMBER	360453.1
FIRM NAME	Sanchelima & Associates, P.A.
STREET	235 SW Le Jeune Road
CITY	Miami
STATE	Florida
COUNTRY	United States
ZIP/POSTAL CODE	33134
PHONE	305-447-1617
FAX	305-445-8484
EMAIL ADDRESS	tm@sanchelima.com
AUTHORIZED TO COMMUNICATE VIA EMAIL	Yes
OTHER APPOINTED ATTORNEY	Jesus Sanchelima, Esq.
CORRESPONDENCE INFORMATION	
NAME	Christian Sanchelima, Esq.
FIRM NAME	Sanchelima & Associates, P.A.
STREET	235 SW Le Jeune Road
CITY	Miami
STATE	Florida
COUNTRY	United States
ZIP/POSTAL CODE	33134
PHONE	305-447-1617
FAX	305-445-8484
*EMAIL ADDRESS	tm@sanchelima.com;legal@sanchelima.com; chris@sanchelima.com; jesus@sanchelima.com
*AUTHORIZED TO COMMUNICATE VIA EMAIL	Yes

FEE INFORMATION		
APPLICATION FILING OPTION	TEAS RF	
NUMBER OF CLASSES	2	
FEE PER CLASS	275	
*TOTAL FEE DUE	550	
*TOTAL FEE PAID	550	
SIGNATURE INFORMATION		
ORIGINAL PDF FILE	hw 502405030-173505343 . 161004vp, Signed TM Appl. 360453, 1 3.pdf	
CONVERTED PDF FILE(S) (1 page)	\\TICRS\EXPORT17\IMAGEOUT17\872\026\87202675\xm11\RFA0005.JPG	
SIGNATORY'S NAME	Gabriel Serrano	
SIGNATORY'S POSITION	Managing Member	
SIGNATORY'S PHONE NUMBER	305-447-1617	

Trademark/Service Mark Application, Principal Register

Serial Number: 87202675 Filing Date: 10/13/2016

To the Commissioner for Trademarks:

MARK: FERULAC PEEL (Standard Characters, see below)

The literal element of the mark consists of FERULAC PEEL. The mark consists of standard characters, without claim to any particular font, style, size, or color.

The applicant, SESDERMA, S.L., a limited liability company legally organized under the laws of Spain, having an address of Massamagrell, 3 - Rafelbuñol Poligono Industrial Rafelbuñol Valencia E-46138 Spain 305-447-1617(phone) 305-445-8484(fax) tm@sanchelima.com (not authorized)

requests registration of the trademark/service mark identified above in the United States Patent and Trademark Office on the Principal Register established by the Act of July 5, 1946 (15 U.S.C. Section 1051 et seq.), as amended, for the following:

International Class 003: non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulac acid.

In International Class 003, the mark was first used by the applicant or the applicant's related company or licensee or predecessor in interest at least as early as 05/30/2010, and first used in commerce at least as early as 05/30/2010, and is now in use in such commerce. The applicant is submitting one(or more) specimen(s) showing the mark as used in commerce on or in connection with any item in the class of listed goods/services, consisting of a(n) Image of the mark as used in commerce as found affixed to the goods.. Specimen File1

International Class 005: medicated skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid

In International Class 005, the mark was first used by the applicant or the applicant's related company or licensee or predecessor in interest at least as early as 05/30/2010, and first used in commerce at least as early as 05/30/2010, and is now in use in such commerce. The applicant is submitting one(or more) specimen(s) showing the mark as used in commerce on or in connection with any item in the class of listed goods/services, consisting of a(n) Image of the mark as used in commerce as found affixed to the goods. Specimen File1

The applicant's current Attorney Information:

Christian Sanchelima, Esq. and Jesus Sanchelima, Esq. of Sanchelima & Associates, P.A. 235 SW Le Jeune Road

Miami, Florida 33134

United States

305-447-1617(phone)

305-445-8484(fax)

tm@sanchelima.com (authorized)

The attorney docket/reference number is 360453.1.

The applicant's current Correspondence Information:

Christian Sanchelima, Esq.

Sanchelima & Associates, P.A.

235 SW Le Jeune Road

Miami, Florida 33134

305-447-1617(phone) 305-445-8484(fax)

tm@sanchelima.com; legal@sanchelima.com; chris@sanchelima.com; jesus@sanchelima.com (authorized)

E-mail Authorization: I authorize the USPTO to send e-mail correspondence concerning the application to the applicant or applicant's attorney at the e-mail address provided above. I understand that a valid e-mail address must be maintained and that the applicant or the applicant's attorney must file the relevant subsequent application-related submissions via the Trademark Electronic Application System (TEAS). Failure to do so will result in an additional processing fee of \$50 per international class of goods/services.

A fee payment in the amount of \$550 has been submitted with the application, representing payment for 2 class(es).

Declaration

The signatory believes that: if the applicant is filing the application under 15 U.S.C. § 1051(a), the applicant is the owner of the trademark/service mark sought to be registered; the applicant is using the mark in commerce on or in connection with the goods/services in the application; the specimen(s) shows the mark as used on or in connection with the goods/services in the application; and/or if the applicant filed an application under 15 U.S.C. § 1051(b), § 1126(d), and/or § 1126(e), the applicant is entitled to use the mark in commerce; the applicant has a bona fide intention, and is entitled, to use the mark in commerce on or in connection with the goods/services in the application. The signatory believes that to the best of the signatory's knowledge and belief, no other persons, except, if applicable, concurrent users, have the right to use the mark in commerce, either in the identical form or in such near resemblance as to be likely, when used on or in connection with the goods/services of such other persons, to cause confusion or mistake, or to deceive. The signatory being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements and the like may jeopardize the validity of the application or any registration resulting therefrom, declares that all statements made of his/her own knowledge are true and all statements made on information and belief are believed to be true.

Declaration Signature

Signature: Not Provided Date: Not Provided

Signatory's Name: Gabriel Serrano Signatory's Position: Managing Member

RAM Sale Number: 87202675 RAM Accounting Date: 10/14/2016

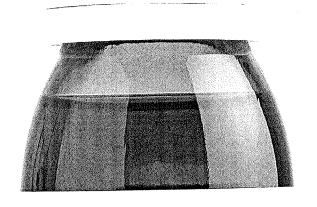
Serial Number: 87202675

Internet Transmission Date: Thu Oct 13 17:43:35 EDT 2016

TEAS Stamp: USPTO/BAS-XX.XXX.XX.XX-20161013174335048

119-87202675-5705e4d9f94f95b2fe50d0adf13 f1edeaf2ddab7492643ca92f9d26aa0fa72a6-CC

-4860-20161013173505343230



FERULAC PEEL CLASSIC

Chemical exfoliating / Exfoliante químico

pH 4.0 - 5.0



Step 1

PROFESSIONAL USE

60 ml € 2.03 fl. oz

sesmediderma



FERULAC PEEL

Declaration

The signatory believes that: if the applicant is filing the application under 15 U.S.C. § 1051(a), the applicant is the owner of the trademark/service mark sought to be registered; the applicant is using the mark in commerce on or in connection with the goods/services in the application; the specimen(s) shows the mark as used on or in connection with the goods/services in the application; and/or if the applicant filed an application under 15 U.S.C. § 1051(b), § 1126(d), and/or § 1126(e), the applicant is entitled to use the mark in commerce; the applicant has a bona fide intention, and is entitled, to use the mark in commerce on or in connection with the goods/services in the application. The signatory believes that to the best of the signatory's knowledge and belief, no other persons, except, if applicable, concurrent users, have the right to use the mark in commerce, either in the identical form or in such near resemblance as to be likely, when used on or in connection with the goods/services of such other persons, to cause confusion or mistake, or to deceive. The signatory being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements and the like may jeopardize the validity of the application or any registration resulting therefrom, declares that all statements made of his/her own knowledge are true and all statements made on information and belief are believed to be true.

Signature Section:

Signature:_

Signatory's Name: Gabriel Serrano

Signatory's Position: Managing Member Signatory's Phone Number: 305-447-1617

Date Signed: 25/8/2016

NOTE TO APPLICANT: When filed as part of the electronic form (i.e., scanned and attached as an image file), the signature page must include both the signature information and the boilerplate declaration language. Do not include the entire application, but do ensure that the boilerplate declaration language actually appears; a signature by itself will not be acceptable. If, due to browser limitations, the boilerplate declaration language appears on a previous page when printed, you must "merge" the declaration and signature block onto a single page prior to signing, so that the one complete page can be scanned to create an acceptable image file. It is recommended that you copy-and-paste the entire text form into another document, manipulate the spacing there to move the declaration and signature section to a separate page, and then print this new version of the text form to send to the signatory.

EXHIBIT C

EXHIBIT C

To:

SESDERMA, S.L. (tm@sanchelima.com)

Subject:

U.S. TRADEMARK APPLICATION NO. 87202675 - FERULAC PEEL - 360453.1

Sent:

12/17/2016 8:32:51 PM

Sent As:

ECOM119@USPTO.GOV

Attachments:

Attachment - 1

Attachment - 2

Attachment - 3

Attachment - 4

Attachment - 5

Attachment - 6

Attachment - 7

Attachment - 8

Attachment - 9

Attachment - 10

Attachment - 11

Attachment - 12

Attachment - 13

Attachment - 14

Attachment - 15

Attachment - 16

Attachment - 17
Attachment - 18

Attachment - 19

Attachment - 20

Attachment - 21

Attachment - 22

Attachment - 23

Attachment - 24

Attachment - 25

Attachment - 26 Attachment - 27

Attachment - 28

Attachment - 29

Attachment - 30

Attachment - 31

Attachment - 32

Attachment - 33

Attachment - 34

Attachment - 35

UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO) OFFICE ACTION (OFFICIAL LETTER) ABOUT APPLICANT'S TRADEMARK APPLICATION

U.S. APPLICATION SERIAL NO. 87202675

MARK: FERULAC PEEL

87202675

CORRESPONDENT ADDRESS:

CHRISTIAN SANCHELIMA, SANCHELIMA & ASSOCIATES, P.A. 235 SW LE JEUNE ROAD MIAMI, FL 33134

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APPLICANT: SESDERMA, S.L.

CORRESPONDENT'S REFERENCE/DOCKET NO: 360453 I

CORRESPONDENT E-MAIL ADDRESS:

tm@sanchelima.com

OFFICE ACTION

STRICT DEADLINE TO RESPOND TO THIS LETTER

TO AVOID ABANDONMENT OF APPLICANT'S TRADEMARK APPLICATION, THE USPTO MUST RECEIVE APPLICANT'S COMPLETE RESPONSE TO THIS LETTER WITHIN 6 MONTHS OF THE ISSUE/MAILING DATE BELOW.

ISSUE/MAILING DATE: 12/17/2016

The referenced application has been reviewed by the assigned trademark examining attorney. Applicant must respond timely and completely to the issue(s) below. 15 U.S.C. §1062(b); 37 C.F.R. §§2.62(a), 2.65(a); TMEP §§711, 718.03.

SEARCH OF OFFICE'S DATABASE OF MARKS

The trademark examining attorney has searched the Office's database of registered and pending marks and has found no conflicting marks that would bar registration under Trademark Act Section 2(d). TMEP §704.02; see 15 U.S.C. §1052(d).

SECTION 2(e)(1) REFUSAL - MERELY DESCRIPTIVE

Registration is refused because the applied-for mark merely describes a feature, ingredient, characteristic, purpose, function and/or use of applicant's goods. Trademark Act Section 2(e)(1), 15 U.S.C. §1052(e)(1); see TMEP §§1209.01(b), 1209.03 et seq.

In addition to being merely descriptive, the applied-for mark appears to be generic in connection with the identified goods and, therefore, incapable of functioning as a source-identifier for applicant's goods. In re Gould Paper Corp., 834 F.2d 1017, 5 USPQ2d 1110 (Fed. Cir. 1987); In re Pennzoil Prods. Co., 20 USPQ2d 1753 (TTAB 1991); see TMEP §§1209.01(c) et seq., 1209.02(a). Under these circumstances, neither an amendment to proceed under Trademark Act Section 2(f) nor an amendment to the Supplemental Register can be recommended. See TMEP §1209.01(c).

A mark is merely descriptive if it describes an ingredient, quality, characteristic, function, feature, purpose, or use of an applicant's goods and/or services. TMEP §1209.01(b); see, e.g., DuoProSS Meditech Corp. v. Inviro Med. Devices, Ltd., 695 F.3d 1247, 1251, 103 USPQ2d 1753, 1755 (Fed. Cir. 2012) (quoting In re Oppedahl & Larson LLP, 373 F.3d 1171, 1173, 71 USPQ2d 1370, 1371 (Fed. Cir. 2004)); In re Steelbuilding.com, 415 F.3d 1293, 1297, 75 USPQ2d 1420, 1421 (Fed. Cir. 2005) (citing Estate of P.D. Beckwith, Inc. v. Comm'r of Patents, 252 U.S. 538, 543 (1920)).

The determination of whether a mark is merely descriptive is made in relation to an applicant's goods and/or services, not in the abstract. DuoProSS Meditech Corp. v. Inviro Med. Devices, Ltd., 695 F.3d 1247, 1254, 103 USPQ2d 1753, 1757 (Fed. Cir. 2012); In re The Chamber of Commerce of the U.S., 675 F.3d 1297, 1300, 102 USPQ2d 1217, 1219 (Fed. Cir. 2012); TMEP §1209.01(b); see, e.g., In re Polo Int'l Inc., 51 USPQ2d 1061, 1062-63 (TTAB 1999) (finding DOC in DOC-CONTROL would refer to the "documents" managed by applicant's software rather than the term "doctor" shown in a dictionary definition); In re Digital Research Inc., 4 USPQ2d 1242, 1243-44 (TTAB 1987) (finding CONCURRENT PC-DOS and CONCURRENT DOS merely descriptive of "computer programs recorded on disk" where the relevant trade used the denomination "concurrent" as a descriptor of a particular type of operating system).

Applicant seeks registration of "FERULAC PEEL" for "non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulae acid, in International Class 3; and medicated skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid, in International Class 5."

The term "ferulac" is the phonetic equivalent of "ferulic."

The attached excerpts from the website of ScienceDirect provides the following regarding ferulic acid:

Ferulic acid (FA), a ubiquitous natural phenolic phytochemical present in seeds, leaves, bothin its free form and covalently conjugated to the

plant cell wall polysaccharides, glycoproteins, polyamines, lignin and hydroxy fatty acids. FA plays a vital role in providing the rigidity to the cell wall and formation of other important organic compounds like coniferyl alcohol, vanillin, sinapic, diferulic acid and curcumin. FA exhibits wide variety of biological activities such as antioxidant, antiinflammatory, antimicrobial, antiallergic, hepatoprotective, anticarcinogenic, antithrombotic, increase sperm viability, antiviral and vasodilatory actions, metal chelation, modulation of enzyme activity, activation of transcriptional factors, gene expression and signal transduction.

4.5. Uses of ferulic acid in cosmetics

ROS (reactive oxygen species) formation is the main cause of UV-induced skin damage. During the exposure to radiation, a photon interact with trans-urocanic acid in skin and generate singlet oxygen that can activate the entire oxygen free radical cascade with oxidation of proteins, nucleic acid and lipids, resulting in the photoaging changes and skin cancer [6] and [7]. FA is a strong UV absorber [17], and skin absorbs it at the same rate at acidic and neutral pH [68]. FA structure is similar to tyrosine, and it is believed that FA inhibits the melanin formation through competitive inhibition with tyrosine. It gives a considerable protection to the skin against UVB-induced erythema in a time dependent manner [68]. FA alone or in alliance with vitamin E and vitamin C provides about 4–8 fold protection against solar-simulated radiation damage on most likely interacting pro-oxidative intermediates. Successful photoprotection with solar-simulated ultraviolet induced photodamage was recorded on a pig (in vivo experiments) by using a mixture of FA (0.5%), vitamin E (1%) and, vitamin C (15%).

Material obtained from the Internet is generally accepted as competent evidence. *See In re Leonhardt*, 109 USPQ2d 2091, 2098 (TTAB 2008) (accepting Internet evidence to show descriptiveness); *In re Rodale Inc.*, 80 USPQ2d 1696, 1700 (TTAB 2006) (accepting Internet evidence to show genericness); TMEP §710.01(b).

The Internet has become integral to daily life in the United States, with Census Bureau data showing approximately three-quarters of American households used the Internet in 2013 to engage in personal communications, to obtain news, information, and entertainment, and to do banking and shopping. See In re Nieves & Nieves LLC, 113 USPQ2d at 1642 (taking judicial notice of the following two official government publications: (1) Thom File & Camille Ryan, U.S. Census Bureau, Am. Cmty. Survey Reports ACS-28, Computer & Internet Use in the United States: 2013 (2014), available at http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-28.pdf, and (2) The Nat'l Telecomms. & Info. Admin. & Econ. & Statistics Admin., Exploring the Digital Nation: America's Emerging Online Experience (2013), available at http://www.ntia.doc.gov/files/ntia/publications/exploring the digital nation - americas emerging online experience.pdf). Thus, the widespread use of the Internet in the United States suggests that Internet evidence may be probative of public perception in trademark examination.

The excerpt from the applicant's website regarding its Ferulac Peels Booster System provides the following:

First patented liposomed peel system where the main active ingredient is the ferulic acid. Indicated for all signs of photoaging.

Properties of ferulic acid

The antioxidant action of ferulic acid protects the skin from the aggressions caused by free radicals. Ferulic acid inhibits and neutralizes the action of free radicals and enhances the effects of vitamins C and E. It protects the skin from UVB and UVA radiation, helping minimize the damage caused by the sun and protecting cellular DNA.

Controls tyrosinase activity, preventing and lightening unwanted pigmentations. It also has a pro-apoptotic effect on cancer cells.

Material obtained from applicant's website is acceptable as competent evidence. See In re N.V. Organon, 79 USPQ2d 1639, 1642-43 (TTAB 2006); In re Promo Ink, 78 USPQ2d 1301, 1302-03 (TTAB 2006); In re A La Vieille Russie Inc., 60 USPQ2d 1895, 1898 (TTAB 2001); TBMP §1208.03; TMEP §710.01(b).

Additional excerpts from the websites Wikipedia.org and IshtarSkinlights.com further indicate the benefits of mandelic acid in connection with skincare products. See attachments. Material obtained from the Internet is generally accepted as competent evidence in trademark examination. See In re Jonathan Drew Inc., 97 USPQ2d 1640, 1641-42 (TTAB 2011); In re Davey Prods. Pty Ltd., 92 USPQ2d 1198, 1202-03 (TTAB 2009); In re Leonhardt, 109 USPQ2d 2091, 2098 (TTAB 2008); TBMP §1208.03; TMEP §710.01(b).

A novel spelling or an intentional misspelling that is the phonetic equivalent of a merely descriptive word or term is also merely descriptive if purchasers would perceive the different spelling as the equivalent of the descriptive word or term. See In re Quik-Print Copy Shop, Inc., 616 F.2d 523, 526 & n.9, 205 USPQ 505, 507 & n.9 (C.C.P.A. 1980) (holding "QUIK-PRINT," phonetic spelling of "quick-print," merely descriptive of printing and photocopying services); In re Carlson, 91 USPQ2d 1198, 1203 (TTAB 2009) (holding "URBANHOUZING," phonetic spelling of "urban" and "housing," merely descriptive of real estate services); In re The State Chem. Mfg. Co., 225 USPQ 687, 689-90 (TTAB 1985) (holding "FOM," phonetic spelling of "foam," merely descriptive of foam rug shampoo); TMEP §1209.03(j).

The attached definitions from the website of *The American Heritage Dictionary of the English Language Dictionary* defines the word "PEEL" as "a chemical peel." A "chemical peel" is defined as "1. The removal of skin blemishes or wrinkles by applying a caustic chemical, such as an

acid, that produces a mild, superficial burn. 2. Any of various treatments used in such removal."

Therefore, the wording merely describes an ingredient, quality, characteristic, or feature of applicant's goods, namely, the applicant's goods comprise chemical peels or treatments for the removal of problematic skin with ferulic acid as an ingredient.

INFORMALITIES

Although applicant's mark has been refused registration, applicant may respond to the refusal by submitting evidence and arguments in support of registration. Additionally, the applicant must respond to the requirement set forth below:

IDENTIFICATION OF GOODS REQUIRES AMENDMENT - CLASS 3

The International Class 5 identification is acceptable. The International Class 3 identification of goods is unacceptable because a portion is indefinitely worded. See TMEP §§1402.01, 1402.03. Specifically, the Class 3 identification indicates that all of the goods contain "ferulac acid". As noted earlier, the word "ferulac" is the phonetic equivalent of "ferullic", and this indicates that applicant's goods have and/or exhibit, (or will have and/or will exhibit) the following feature or characteristic: ferulic acid. The correct spelling appears in the Class 5 identification.

Applicant may change the wording to the following, if accurate [please note that the current unacceptable entries appear italicized and suggested wording the applicant must provide appears in bold]:

Non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing Class 3: containing ferulic acid.

TMEP §1402.01.

PLEASE NOTE: An applicant may amend an identification of goods and services only to clarify or limit the goods and services; adding to or broadening the scope of the goods and/or services is not permitted. 37 C.F.R. §2.71(a); see TMEP §§1402.06 et seq., 1402.07 et seq.

For assistance with identifying goods and/or services in trademark applications, please see the online searchable Manual of Acceptable Identifications of Goods and Services at http://tess2.uspto.gov/netahtml/tidm.html.

If applicant has questions regarding this Office action, please telephone or e-mail the assigned trademark examining attorney. All relevant email communications will be placed in the official application record; however, an e-mail communication will not be accepted as a response to this Office action and will not extend the deadline for filing a proper response. See 37 C.F.R. §§2.62(c), 2.191; TMEP §§304.01-.02, 709.04-.05. Further, although the trademark examining attorney may provide additional explanation pertaining to the refusal(s) and/or requirement(s) in this Office action, the trademark examining attorney may not provide legal advice or statements about applicant's rights. See TMEP §§705.02, 709.06.

TEAS PLUS OR TEAS REDUCED FEE (TEAS RF) APPLICANTS – TO MAINTAIN LOWER FEE, ADDITIONAL REQUIREMENTS MUST BE MET, INCLUDING SUBMITTING DOCUMENTS ONLINE: Applicants who filed their application online using the lower-fee TEAS Plus or TEAS RF application form must (1) file certain documents online using TEAS, including responses to Office actions (see TMEP §§819.02(b), 820.02(b) for a complete list of these documents); (2) maintain a valid e-mail correspondence address; and (3) agree to receive correspondence from the USPTO by e-mail throughout the prosecution of the application. See 37 C.F.R. §§2.22(b), 2.23(b); TMEP §§819, 820. TEAS Plus or TEAS RF applicants who do not meet these requirements must submit an additional processing fee of \$50 per international class of goods and/or services. 37 C.F.R. §\$2.6(a)(1)(v), 2.22(c), 2.23(c); TMEP §\$819.04, 820.04. However, in certain situations, TEAS Plus or TEAS RF applicants may respond to an Office action by authorizing an examiner's amendment by telephone or email without incurring this additional fee.

> /Ronald L. Fairbanks/ Ronald L. Fairbanks Trademark Examining Attorney Law Office 119 (571) 272-9405 ron.fairbanks@uspto.gov

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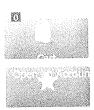
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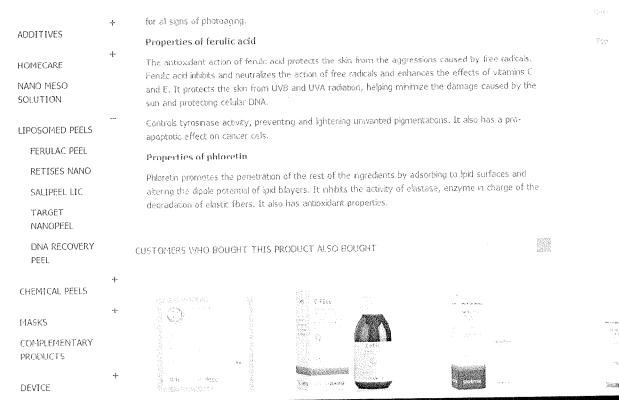
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From the very beginning, 35 years ago, Dr. Gabriel Serrano has been involved in the development of fine skin care

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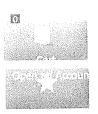
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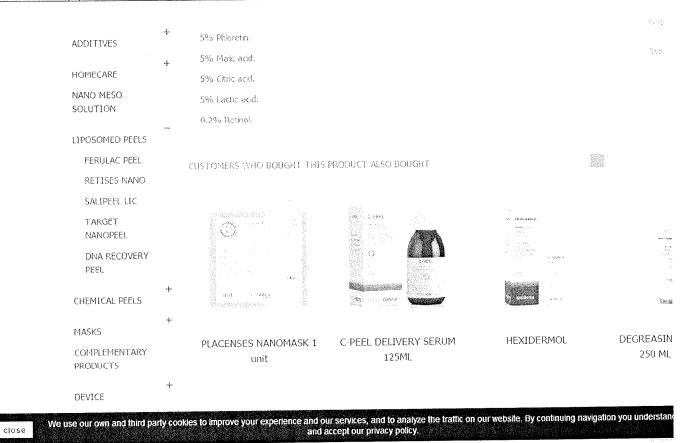
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n.

- 1. The skin or find of certain fruits and vegetables.
- 2. A chemical peel.

v. peeled, peel-ing, peels

- 1. To strip or cut away the skin, rind, or bark from, pare.
- 2. To strip away, pull off: peeled the label from the jar.

- 1. To lose or shed skin, bark, or other covering.
- 2. To come off in thin strips or pieces, as bank, skin, or paint. Her sunburned skin began to peel.

Phrasal Verbs:

peel off

- 1. To remove (an article of clothing that fits snugly).
- 2. To break away from a group in motion, especially to leave flight formation in order to land an aircraft or make a dive.
- 3. To leave or depart, especially in a hurry.

peel out

To leave quickly, especially by accelerating a vehicle so that the tires spin: peeled out of the driveway

[From Middle English pilen, pelen, to peel, from Old French peler, and Old English pilian (both from Latin pilāre, to deprive of hair, from pilus, hair) and from Old French pillier, to tug, pull, plunder (from Latin pille um, felt cap).]

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peel 2 (pēl)



- 1. A long-handled, shovellike tool used by bakers to move bread or pastries into and out
- 2. Printing A T-shaped pole used for hanging up freshly printed sheets of paper to dry.

[Middle English, from Old French pele, from Latin pala, spade, peel; see pag-in the Appendix of Indo-European roots.]



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peel 3 (pēl)



Share:

A fortified house or tower of a kind constructed in the borderland of Scotland and

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England in the 1500s.

[Middle English pel, stake, small castle, from Anglo-Norman, stockade, variant of Old French, stake, from Latin pālus; see pag- in the Appendix of Indo-European roots.]

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Peel : (pēl), Sir Robert 1788-1850.

British politician. As home secretary in the 1820s, he established the London police force (1829). He later served as prime minister (1834-1835 and 1841-1846) and was instrumental in repealing the restrictive Corn Laws.

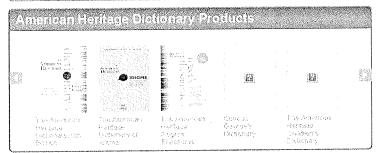
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chemical peel



n.

- 1. The removal of skin blemishes or wrinkles by applying a caustic chemical, such as an acid, that produces a mild, superficial burn.
- 2. Any of various treatments used in such removal.

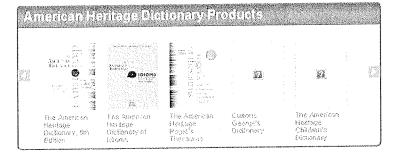
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Ferulic acid

From Wikipedia, the free encyclopedia

Ferulic acid is a hydroxycinnamic acid, a type of organic compound. It is an abundant phenolic phytochemical found in plant cell wall components such as arabinoxylans as covalent side chains. It is related to trans-cinnamic acid. As a component of lignin, ferulic acid is a precursor in the manufacture of other aromatic compounds. The etymology is from the genus Ferula, referring to the giant fennel (Ferula communis).

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6.1 As a precursor to vanillin

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Occurrence in nature (edit)

As a building block of lignocelluloses, such as pectin^[2] and lignin, ferulic acid is ubiquitous in the plant kingdom.

Ferulic acid

Names

JUPAC name

(E)-3-(4-hydroxy-3-methoxy-phenyl)prop-2-

enoic acid

Other names

2-propenoic acid, 3-(4-hydroxy-3-

methoxyphenyl)-

ferulic acid

3-(4-hydroxy-3-methoxyphenyl)-2-propenoic

3-(4-hydroxy-3-methoxyphenyl)acrylic acid

3-methoxy-4-hydroxycinnamic acid

4-hydroxy-3-methoxycinnamic acid

(2E)-3-(4-hydroxy-3-methoxyphenyl)-2-

propenoic acid Ferulate

Coniferic acid

trans-ferulic acid

(E)-ferulic acid

identifiers

CAS Number 1135-24-6@ Interactive images? 3D model (Jmoi)

ChEBI

CHEBE17620₽ ✓

ChEMBL

ChEMBL32749@ 4

ChemSpider

39336867 4

DrugBank

DB07767# 4

Deutsch Español فارسى

Languages

Francais Italiano

Magyar Nederlands 日本語 Polski Portugués Pyccixitů Српски / srpski Srpskohrvatski / српскохрватски Suomi

中文

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In food [edit]

Ferulic acid is found in the **seeds** of coffee, apple, artichoke, peanut, and orange, as well as in both seeds and cell walls of commelinid plants (such as rice, wheat, oats, the Chinese water chestnut (Eleocharis dulcis) and pineapple). Often in the form of chlorogenic acid.

In cereals, ferulic acid is localized in the bran the hard outer layer of grain. In wheat, phenolic compounds are mainly found in the form of insoluble bound ferulic acid and be relevant to resistance to wheat fungal diseases. [3] The highest known concentration of ferulic acid glucoside has been found in flax seed $(4.1 \pm 0.2 \text{ g/kg})$. [4] It is also found in barley grain. [5]

Asterid Eudicot plants can also produce ferulic acid. The tea brewed from the leaves of yacón (*Smallanthus sonchifolius*), a plant traditionally grown in the Northern and Central Andes, contains quantities of ferulic acid. In legumes, the white bean variety navy bean is the richest source of ferulic acid among the common bean (*Phaseolus vulgaris*) varieties. [6] It is also found in horse grams (*Macrotyloma unillorum*).^[7]

	The second secon
ECHA InfoCard	100.013.173៥
PubChem	445858@
InChl	[show]
SMILES	[show]
	Properties
Chemical formula	C ₁₀ H ₁₀ O ₄
Molar mass	194 18 g/mol
Appearance	Crystalline Powder
Melting point	168 to 172 °C (334 to 342 °
	F; 441 to 445 K)
Solubility in water	0.78 g/L ⁽¹⁾
Acidity (pK _s)	3.46 ⁽¹⁾
	Hazards
NFPA 704	
	2 0
	××
Except where other	erwise noted, data are given
for materials in the	eir standard state (at 25 °C
[77 °F], 100 kPa).	<i>t</i> :
√ ∀€	erify (what is ✓x?)

Infobox references

Although there are many sources of ferulic acid in nature, its bioavailability is limited based on the form in which it is present, with free ferulic acid having a poor water solubility hence poor bioavailability. In wheat grain, ferulic acid is found bound to cell wall polysaccharides, which has an effect on its release and absorption in the small intestine. [8]

In herbal medicines [edit]

Ferulic acid has been identified in Chinese medicine herbs such as *Angelica sinensis* (female ginseng), *Cimicifuga heracleifolia* and *Ligasticum chuangxiong*. It is also found in the tea brewed from the European centaury (*Centaurum erythraea*), a plant used as a medical herb in many parts of Europe, [10]

In processed foods [edit]

Cooked sweet corn releases increased levels of ferulic acid. [1:1] As plant sterol esters, this compound is naturally found in rice bran oil, a popular cooking oil in several Asian countries. [12]

Ferulic acid glucoside can be found in commercial breads containing flaxseed. [13] Rye bread contains ferulic acid dehydrodimers. [14]

Metabolism [edit]

In plants, ferulic acid (right) is derived
from phenylalanine, which is converted to
4-hydroxycinnamic acid (left) and then
caffeic acid.

Biosynthesis (edit)

Biosynthesis of ferulic acid is by the action of the enzyme caffeate O-methyltransferase. [1] It is biosynthesized from caffeic acid.

Ferulic acid, together with dihydroferulic acid, is a component of lignocellulose, serving to crosslink the lignin and polysaccharides, thereby conferring rigidity to the cell walls. $^{\{i\S\}}$

It is an intermediate in the synthesis of monolignols, i.e., the monomers of lignin, and is also used for the synthesis of lignans.

Biodegradation [edit]

Ferulic acid is converted by certain strains of yeast, notably strains used in brewing of wheat beers, such as Saccharomyces delbrueckii (Torulaspora delbrueckii), to 4-vinyl guaiacol (2-methoxy-4-vinylphenol) which gives beers such as Weissbier and Wit their distinctive "clove" flavour. Saccharomyces cerevisiae (dry baker's yeast) and Pseudomonas fluorescens are also able to convert trans-ferulic acid into 2-methoxy-4-vinylphenol. [16] In P. fluorescens, a ferulic acid decarboxylase has been isolated. [17]

Ecology [edit]

Ferulic acid is one of the possible plant compounds that initiate Agrobacterium tumefaciens to infect plant cells.

Extraction [edit]

It can be extracted from wheat bran and maize bran using concentrated alkali.[15]

Bio-medical considerations (edit)

Ferulic acid, like many natural phenols, is an antioxidant in vitro in the sense that it is reactive toward free radicals such as reactive oxygen species (ROS). ROS and free radicals are implicated in DNA damage, cancer, and accelerated cell aging. Animal studies and in vitro studies suggest that forulic acid may have direct antitumor activity against breast cancer. and liver cancer. Ferulic acid may have pro-apoptotic effects in cancer cells, thereby leading to their destruction. Ferulic acid may be effective at preventing cancer induced by exposure to the carcinogenic compounds benzopyreno.

UV visible spectrum of ferulic ⁶⁷ acid, with lambda max at 321 and a shoulder at 278 nm

these are not randomized controlled trials done with human participants, and therefore, the results of these studies may not be directly applicable to human use

If added to a topical preparation of ascorbic acid and vitamin E, ferulic acid may reduce oxidative stress and

formation of thymine dimers in skin. [6] There is also a small amount of research showing oral supplements of ferulic acid can inhibit melanin production in the process of skin whitening. [12]

Other applications [edit]

As a precursor to vanillin [edit]

Ferulic acid, being highly abundant, may be useful as a precursor in the manufacturing of vanillin, a synthetic flavoring agent often used in place of natural vanilla extract.^[7] However, biotechnological processes may be the most efficient method to use ferulic acid as a precursor, ^[8] and as such, research is still ongoing.

Mass spectrometry (edit)

It is used as a matrix for proteins in MALDI mass spectrometry analyses. [9]

Bitterness masker [edit]

Kraft Foods has patented the use of sodium ferulate to mask the bitter aftertaste of the artificial sweetener acesulfame potassium. [20]

See also [edit]

- · Caffeic acid
- · Coumaric acid
- · Diferulic acids
- Eugenol
- · Isoferulic acid, an isomer of ferulic acid

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V•T•E		Types of hydroxycinnamic acids		[hide]
		Precursor	Cinnamic acid	
	Monohydroxycin (Cou	namic acids maric acids)	$ ho ext{-Coumaric acid} \cdot ext{o-Coumaric acid} \cdot m ext{-Coumaric acid}$	
Aglyca	ones Dihydroxycin	namic acids	Caffeic acid (3,4-dihydroxycinnamic acid) · Umbellic acid (2,4-dihydroxycinnamic acid) · 2.3-Dihydroxycinnamic acid · 2,5-Dihydroxycinnamic acid	
	Trihydroxycin	namic acids	2,4,5-Trihydroxycinnamic acid • 3,4,5-Trihydroxycinnamic acid	t

O-methylated forms Ferulic acid - 5-Hydroxyferulic acid - Isoferulic acid - Sinapinic acid

others Plicatin A · Plicatin B

Chlorogenic acid (3-caffeoylquinic acid) · Cryptochlorogenic acid

(4-O-caffeoylquinic acid)

esters of Neochlorogenic acid

Esters of quir

glycoside-likes with cyclitols

quinic acid (5-O-Caffeoylquinic acid) · Cynarine

(1,5-dicaffeoylquinic acid) • 3,4-dicaffeoylquinic acid • 3,5-dicaffeoylquinic acid

esters of Dactylifric acid (3-O-caffeoylshikimic

shikimic acid acid)

Esters Glycosides

Ferulic acid glucoside + p-Coumaric acid glucoside + 1-Sinapoyl-D-glucose

r-altiapoy-o-gideosi

Caftanic acid · Cicheric acid (dicaffeoyltartaric acid) · Coutaric acid · Cicheric acid (dicaffeoyltartaric acid) · Coutaric acid · Cropo reaction product (caftaric acid conjugated with

Tartaric acid esters Fertaric acid · Grape reaction product (caftaric acid conjugated with glutathione)

Caffeoylmalic acid - Ethyl caffeate - Methyl caffeate -

Other esters with caffeic acid Caffeic acid phenethyl ester (CAPE) · Rosmarinic acid (ester with 3,4-dihydroxyphenyllactic acid)

Echinacoside - Calceolarioside A, B, C and F - Chiritoside A, B and C -

Caffeoyl phenylethanoid Cistanoside A, B, C, D, E, F, G an H · Conandroside · Myconoside · Glycoside (CPG) Paucifloside · Plantainoside A · Plantamajoside · Tubuloside B · Conandroside · Conandroside · Tubuloside B · Conandroside · Tubuloside · Tubulos

Verbascoside (Isoverbascoside, 2'-Acetylverbascoside)

Diferulic acids (DiFA): 5,5'-Diferulic acid, 8-O-4'-Diferulic acid, 8,5'-Diferulic acid, Dimers

8,5'-DiFA (DC), 8,5'-DiFA (BF), 8,8'-Diferulic acid

Oligomeric forms Triferulic acids : 5-5'.8'-O-4"-Triferulic acid

Tetramers Tetraferulic acids

Conjugates with coenzyme A (CoA)

Caffeoyl-CoA · Cinnamoyl-CoA · Coumaroyl-CoA

Categories: Phenol antioxidants O-Methylated hydroxycinnamic acids Bitter-masking compounds

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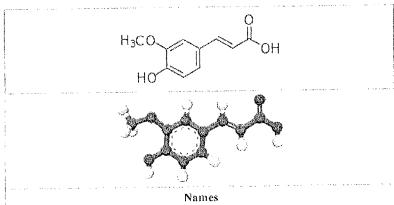
Ferulic acid

From Wikipedia, the free encyclopedia

Ferulic acid is a

hydroxycinnamic acid, a type of organic compound. It is an abundant phenolic phytochemical found in plant cell wall components such as arabinoxylans as covalent side chains. It is related to trans-cinnamic acid. As a component of lignin, ferulic acid is a precursor in the manufacture of other aromatic compounds. The etymology is from the genus Ferula, referring to the giant fennel (Ferula communis).

Ferulic acid



IUPAC name

(E)-3-(4-hydroxy-3-methoxy-phenyl)prop-2-enoic acid

Other names

2-propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-

ferulic acid

3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid

3-(4-hydroxy-3-methoxyphenyl)acrylic acid

3-methoxy-4-hydroxycinnamic acid

4-hydroxy-3-methoxycinnamic acid

(2E)-3-(4-hydroxy-3-methoxyphenyl)-2-propenoic

acid

Ferulate

Coniferic acid

trans-ferulic acid

(E)-ferulic acid

Identifiers

CAS Number	1135-24-6 (http://www.commonchemistry.org/ChemicalDetail.aspx? ref=1135-24-6) '
3D model (JSmol)	Interactive image (http://chemapps.stolaf.edu/jmol/jmol.php? modei—COc1cc%28ccc1O%29%2FC%3DC%2FC%28%3DO%29O)
ChEBI	

		CHEBI:17620 (https://www.ebi.ac.uk/chebi/searchld.do? chebild=17620) ⁴	
Contents	ChemSpider	393368 (http://www.chemspider.com/Chemical- Structure.393368.html) *	
1 Occurrence in nature1.1 In food	DrugBank	DB07767 (https://www.drugbank.ca/drugs/DB07767) ✓	
 1.2 In herbal medic 1.3 In processed fo 2 Metabolism 	ines	100.013.173 (https://echa.europa.cu/substance- information/-/substanceinfo/100.013.173) 445858	
2,1 Biosynthesis2,2 Biodegradation	CID	(https://pubchem.ncbi.nlm.nih.gov/compound/445858)	
* 3 Ecology	InChl		
• 4 Extraction	SMILES		
■ 5 Bio-medical considerat	ions	Properties	
 6 Other applications 6.1 As a precursor 6.2 Mass spectrom 		C10H10O4	
• 6.3 Bitterness mas		[94.18 g/mol	
7 See also8 References	Appearance	Crystalline Powder	
	Melting	168 to 172 °C (334 to 342 °F; 441 to 445 K)	
Occurrence in	Solubility in water	0.78 g/J ^[1]	
nature	Acidity (pK_n)	4.61 ^[1]	
As a building block of lignocelluloses, such as pectin	Hazards		
^[2] and lignin, ferulic acid is ubiquitous in the plant kingdom.	NFPA 704	200	
In food	Except where otherwise noted, data are given for materials in their standard state (at 25 °C [77 °F], 100 kPa).		
Ferulic acid is found in the	✓ verify (what is 🗡?)		
seeds of coffee, apple, artichoke, peanut, and orange, as well as in both seeds and			

cell walls of commelinid plants (such as rice, wheat, oats, the Chinese water chestnut (*Eleocharis dulcis*) and pineapple). Often in the form of **chlorogenic acid**.

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Asterid eudicot plants can also produce ferulic acid. The tea brewed from the leaves of yacón (*Smallanthus sonchifolius*), a plant traditionally grown in the northern and central Andes, contains quantities of ferulic acid. In legumes, the white bean variety navy bean is the richest source of ferulic acid among the common bean (*Phaseolus vulgaris*) varieties. [6] It is also found in horse grams (*Macrotyloma uniflorum*). [7]

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In herbal medicines

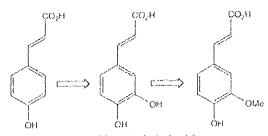
Ferulic acid has been identified in Chinese medicine herbs such as *Angelica sinensis* (female ginseng), *Cimicifuga heracleifolia*^[9] and *Ligusticum chuangxiong*. It is also found in the tea brewed from the European centaury (*Centaurium erythraea*), a plant used as a medical herb in many parts of Europe, ^[10]

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Metabolism



In plants, ferulic acid (right) is derived from phenylalanine, which is converted to 4-hydroxycinnamic acid (feft) and then caffeic acid.

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It is an intermediate in the synthesis of monolignols, i.e., the monomers of lignin, and is also used for the synthesis of lignans.

Biodegradation

Ferulic acid is converted by certain strains of yeast, notably strains used in brewing of wheat beers, such as *Saccharomyces delbrueckii* (*Torulaspora delbrueckii*), to 4-vinyl guaiacol (2-methoxy-4-vinylphenol) which gives beers such as Weissbier and Wit their distinctive "clove" flavour. *Saccharomyces cerevisiae* (dry baker's yeast) and *Pseudomonas fluorescens* are also able to convert trans-ferulic acid into 2-methoxy-4-vinylphenol. ^[17] In *P. fluorescens*, a ferulic acid decarboxylase has been isolated. ^[18]

Ecology

Ferulic acid is one of the possible plant compounds that initiate Agrobacterium tumefaciens to infect plant cells.

Extraction

It can be extracted from wheat bran and maize bran using concentrated alkali. [19]

Bio-medical considerations

Ferulic acid, like many natural phenols, is an antioxidant in vitro in the sense that it is reactive toward free radicals such as reactive oxygen species (ROS). ROS and free radicals are implicated in DNA damage, cancer, and accelerated cell aging. Animal studies and in vitro studies suggest that ferulic acid may have direct antitumor activity against breast cancer^[20] and liver cancer. Ferulic acid may have pro-apoptotic effects in cancer cells, thereby leading to their destruction. Ferulic acid may be effective at preventing cancer induced by exposure to the carcinogenic compounds benzopyrene^[22] and 4-nitroquinoline 1-oxide. Note that these are not randomized controlled trials

UV wisible spectrum of ferulic axid, with λ_{max} at 32.1 mm and a shoulder at 278 mm

done with human participants, and therefore, the results of these studies may not be directly applicable to human use.

If added to a topical preparation of ascorbic acid and vitamin E, ferulic acid may reduce oxidative stress and formation of thymine dimers in skin.^[24] There is also a small amount of research showing oral supplements of ferulic acid can inhibit melanin production in the process of skin whitening.^[25]

Other applications

As a precursor to vanillin

Ferulic acid, being highly abundant, may be useful as a precursor in the manufacturing of vanillin, a synthetic flavoring agent often used in place of natural vanilla extract.^[26] However, biotechnological processes may be the most efficient method to use ferulic acid as a precursor,^[27] and as such, research is still ongoing.

Mass spectrometry

It is used as a matrix for proteins in MALDI mass spectrometry analyses. [28]

Bitterness masker

Kraft Foods has patented the use of sodium ferulate to mask the bitter aftertaste of the artificial sweetener acesulfame potassium.^[29]

See also

- · Caffeic acid
- Coumaric acid
- Diferulic acids
- Eugenol
- · Isoferulie acid, an isomer of ferulic acid

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Potential applications of ferulic acid from natural sources

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Abstract

Ferulic acid (FA), a ubiquitous natural phenolic phytochemical present in seeds, leaves, bothin its free form and covalently conjugated to the plant cell wall polysaccharides, glycoproteins, polyamines, lignin and nydroxy fatty acids. FA plays a vital role in providing the rigidity to the cell wall and formation of other important organic compounds like coniferyl alcohol, vanillin, sinapic, diferulic acid and curcumin. FA exhibits wide variety of biological activities such as antioxidant, antiinflammatory, antimicrobial, antiallergic, hepatoprotective, anticarcinogenic, antithrombotic, increase sperm viability, antiviral and vasodilatory actions, metal chelation, modulation of enzyme activity, activation of transcriptional factors, gene expression and signal transduction.

Keywords

Ferulic acid; Phytochemical; Shikimate pathway; Metabolism; Biological usages

1. Introduction

First time, ferulic acid (4-hydroxy-3-methoxycinnamic acid, FA) was isolated from Ferula foetida for its structure determination, and its name was based on the hotanical name of plant [27]. In 1925, FA was chemically synthesized and structurally confirmed by spectroscopic techniques, depicted the presence of an unsaturated side chain in FA, and also existence of both cis and trans isomeric forms [14] and [56]. The double bond present in the side chain is subjected to $\emph{cis-trens}$ isomerization (Fig. 1) and the resonance stabilized phenoxy radical accounts for its effective antioxidant activity. It catalyzes the stable phenoxy radical formation upon absorption of ultra-violet light, which gives the strength to FA for terminating free radical chain reactions. FA is an enormously

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copious and almost ubiquitous phytochemical phenolic derivative of cinnamic acid, present in plant cell wall components as covalent side chains [66]. Collectively with dihydroferulic acid, it is the component of lignocelluloses, where it confers rigidity to the cell wall by making the crosslink between polysaccharides and lignin. It has been found that FA is linked with a variety of carbohydrates as glycosidic conjugates, different esters and amides with a broad range of natural products [73]. It makes esters by binding with a variety of molecules such as polysaccharides, long chain alcohols, various sterols of plant, tetra-hydroisoquinoline-monoterpene glucoside, a cyanogenetic glycoside and an amino-hydroxy-cyclopentenone, flavonoids and different types of hydroxycarboxylic acids including gluconic, tartaric, malic, hydroxycitric, tartronic, quinic, and hydroxy fatty acids [9], [17], [24] and [25].

rig i Schemanic representation of two different isomeric forms of ferulic acid found in nature (a) cis conformation and (b) trans conformation of ferulic acid

Figure options 🔝

The aim of this review is to provide the organized outline about natural sources, metabolism, and different applications of FA in biomedical, pharmaceutical, food, cosmetic and other industries, which will provide vast information to a wide range of researchers, working on the different applications of natural products.

2. Ferulic acid: natural sources and isolation

FA is commonly found in commelinid plants (rice, wheat, oats, and pineapple), grasses, grains, vegetables, flowers, fruits, leaves, beans, seeds of coffee, artichoke, peanut and nuts [8], [47], [48], [49], [72] and [85]. Cell walls (1.4% of dry weight) of cereal grains and a variety of food plants (pineapple, bananas, spinach, and beetroot) contains 0.5–2% extractable amount of FA, mostly in the *trans*-Isomeric form, and esterified with the specific polysaccharides [21], [22], [23] and [57]. Table 1 summarizes the content of FA in different known sources.

Table 1. Content of ferulic acid in different known sources.

Source	Ferulic acid (mg/0.1 kg)
Bamboo shoots	243.6
Water dropwort	7 3-34
Eggplant	7 3-36
Redbeet	28
Burdock	7.3-19
Soyabean	12
Peanut	§ 7

Peanol	87
Spinach/frozen	7.4
Redcabbages	6.3-6.5
Tomato	0.29-6
Radish	4.6
Broccoli	4.1
Carrot	1.22 8
Parsnip	2.2
Mizuna	1 41.8
Pot grown basil	1.5
Chinese cabbage	1,4
Pot grown lettuces	0.19-1.4
Green bean/fresh	1.2
Avocado	1.1
Grapefruit	10.7-11.6
Orange	9,2-9,9
Banapa	5.4
Berries	0.25-2.7
Rhubarb	2
Plum, dark	1.47
Apples	0 27-0 85
Sugar-beet pulp	800
Papcam	313
Whole grain rye bread	84
Vanote grain pat flakes	25-52
Sweetcom	43
Prokled red beet	39
Rice brown, long grain parbolled	24
Coffee	9.1-14.3
Boiled spaghetti	13.6
Pasta	12
White wheat bread	8.2
Source: [91]	

Table options 🔝

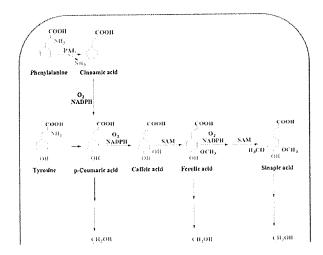
Extraction of FA offers accessible business fortuity, and provides supplementary environmental and economic encouragement for industries as it is used in ingredients of many drugs, functional foods and nutraceuticals. Numerous alkaline, acidic and enzymatic methods for the extraction of FA from different sources have been proposed in literature [3], [35], [45], [46], [71] and [86]. However, optimization of critical parameters for isolation of FA such as time of extraction, pH and temperature is essential for its high yield. Study was conducted with the help of response surface methodology which showed 1.3 fold increases in the production of FA as compared to the unoptimized conventional extraction technique [78]. FA is insoluble in water at room temperature but it is soluble in hot water, othyl acotate, othanol and othyl other, and it has been found that ethanol (60%) is suitable for the successful extraction of FA [18].

Although, FA is found ubiquitously in the cell wall of woods, grasses, and corn hulls, but it is not effortlessly available from these natural sources as it is covalently linked with a variety of carbohydrates as a glycosidic conjugate, or an ester or amide. Therefore, it can

variety of carbonyaratos as a grycosiaic conjugate, of arrester of armae. Therefore, a carr only be released from these natural products by alkaline hydrolysis [78]. Generally, FA obtained from the chemical process cannot be considered as natural, so various attempts have been made for enzymatically release of FA from natural sources. Isolation of FA for commercial production by enzymatic means is a difficult challenge because most of the FA contents in plants are covalently linked with lignin and other biopolymers. Recently, Uraji et al. successfully enhanced the enzymatic production of FA from defatted rice bran, and suggested that the enzymes (a-L-arabinofuranosidase, multiple xylanases, and an acetyl xylan esterase) from Streptomyces can also be used for the extraction of FA from other sources viz., raw rice bran, wheat bran and corncob [80]. The TLC separation of crude extracts and visualization by a range of spraying reagents and UV-light offers a quick way for the regular high-throughput detection of FA. Approximately >45% (>2.0%/g dry weight) of total FA content was released during enzymatic treatment of sweet potato stem that had been achieved through the incubation period of 12 h with 1.0% Ultraflo L [51]. Biotransformation studies for the production of FA from eugenol have been carried out by using the recombinant strain of Ralstonia eutropha H16 [64]. Lambert et al. got almost 90% yields in the production of FA from eugenol and coniferyl alcohol by using a recombinant strain of Saccharomyces cerevisiae (37).

3. Metabolism of ferulic acid

The formation of FA in plants occurs through the metabolic route of shikimate pathway starting with aromatic amino acids, L-phenylalanine and L-tyrosine as key entitles. Initially, phenylalanine and tyrosine are converted into cinnamic and *p*-coumaric acid with the help of phenylalanine ammonia lyase and tyrosine ammonia lyase, respectively [17]. The *p*-coumaric acid gets converted into FA by hydroxylation and methylation reaction [16]. Oxidation and methylation of FA and other aromatic compounds give di and tri-hydroxy derivatives of cinnamic acid, which takes part in the lignin formation together with FA. The conversion reactions occur during the formation of FA and other aromatic compounds, which are schematically represented in Fig. 2.



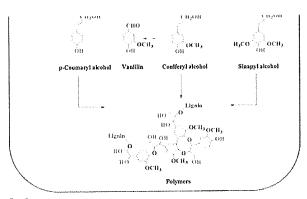


Fig. 2

Schematic depiction of synthesis of ferulic acid and other arcmatic compounds washikimate pathway.

[PAL phenylalanine anymonia yase TAL tyrosine ammonia lyase: SAM S-adenosyl methionine (acts as a methyl donor).

[Figure options

[Figure options]

In vivo studies on FA metabolism suggests that it gets converted into a variety of metabolites such as ferulic acid-sulfate, ferulic acid-glucuronide, ferulic acid-sulfoglucuronide (major metabolites in the plasma and urine of rats), ferulic acid-diglucuronide, feruloy/glycine, m-hydroxyphenylpropionic acid, dihydroferulic acid,

vanilic acid and vanilloylglycine [90] and [91]. The data obtained from these outcomes recommends that the major pathway of FA metabolism is the conjugation reaction with glucuronic acid and/or sulfate. The conjugation of FA takes place mainly in the liver through the activities of sulfotransferases and uridine diphosphate (UDP) glucuronosyl transferases, while small amount of conjugation reaction also takes place in the intestinal mucosa and kidney [10], [32] and [90]. A small portion of free FA possibly metabolized through β -oxidation in the liver [11].

A study was carried out by Overhage et al. with the help of *Pseudomonas sp.* strain HR199 at the end of twentieth century which revealed that the genes involved in the catabolic mechanism of FA were present on a DNA region, which was covered by two EcoRI fragments, E230 and E94, respectively. These genes were *fcs, ech*, and *aat* encoding for feruloyl coenzyme A synthetase, enoyl-CoA hydratase/aldolase, and β-ketothiolase, respectively [63]. Report on the degradation of FA into vanillin and other useful organic compounds through protocatechuate 4,5-cleavage (PCA) pathway in *Sphingomonas paucimobilis* SYK-6 confirmed that FA got converted into feruloyl-CoA by feruloyl-CoA synthetase (FerA), and further into HMPMP-CoA (4-hydroxy-3-methoxyphenyl-β-hydroxypropionyl-coenzyme A) with the help of feruloyl-CoA hydratases/lyases (FerB and FerB2). It subsequently resulted into vanillin with the removal of CH₁COSCoA (acetyl coenzyme A), and finally vanillin transformed into pyrtivate and oxaloacetate through the PCA pathway [43]. The end products of FA catabolism enter into the TCA (tricarboxylic acid cycle), and produce energy in the biological system as shown in Fig. 3.

Fig. 3

Pathway for ferulic acid catabolism in Silvaucimobilis SYK-6 (httlPHP-CoA 4-hydroxy-3-methoxyohenyl-\$-hydroxyprpionyl CoA)

Figure options 🔻

4. Industrial and biological usages of ferulic acid

The biological usages of FA came into notice when a group of Japanese researchers discovered antioxidant properties of steryl esters of FA, which was extracted from rice oil [87]. FA exhibits a wide range of biomedical effects including antioxidant, antiallergic, hepatoprotective, anticarcinogenic, anti-inflammatory, antimicrobial, antiviral, vasodilatory effect, antithrombotic, and helps to increase the viability of sperms [1], [17], [62] and [67]. Also it has applications in food preservation as a cross linking agent [61], photoprotective constituent in sunscreens and skin lotions [68]. An amide derivative of FA, formed by the condensation of FA with tyramine may be used as an indicator of environmental stress in plants. In baking industry, amides of FA with amino acids or dipeptides are commonly used for the purpose of preservation [17]. In many countries, use of FA as food additive has been approved by their government as it affectively scavenges superoxide anion radical, and inhibits the lipid peroxidation [72].

4.1. Ferulic acid as an antioxidant

Like several other phenols, FA also exhibits antioxidant activity in response to free radicals *via* donating one hydrogen atom from its phenolic hydroxyl group, as a result it shows strong anti-inflammatory activity in a carrageenan-induced rat paw edema model

and other similar systems [34], [55] and [62]. It has been revealed that the antioxidant capacity of phenolic acid is equivalent to lecithin upon comparison with ghee on inhibition of time dependent peroxide value. The resonance stabilization of FA is the main cause of its antioxidant nature. In addition, the reactive oxygen species of FA show the scavenging effect, which is similar to that of superoxide dismutase [17].

4.2. Ferulic acid as an anti-diabetic and anti-ageing agent

Diabetes, most widespread endocrine disorder in human beings, is characterized by hyperglycemia, over-production of free radicals and oxidative stress [4]. Due to the oxidative stress, an imbalance is started between the levels of pro-oxidants and antioxidants which lead to cellular injury in biological systems [82]. FA helps in neutralizing the free radicals present in the pancreas, which is produced by the use of streptozotocin, thus it decreases the toxicity of streptozotocin. It has been discussed in literature that the blood glucose level in case of streptozotocin induced diabetic animals is controlled by the administration of FA. The reduction in oxidative stress/toxicity might help the β cells to get proliferate and radiate more insulin in the pancreas. Increased secretion of insulin causes increase in the utilization of glucose from extra hepatic tissues that decreases the blood glucose level [5]. Reports are also available on the stimulatory effects of insulin secretion in rat pancreatic RIN-5F cells by FA amide [58].

4.3. Ferulic acid as preclusion of food discoloration and growth enhancing agent

FA has been used to maintain the color of green peas, prevent discoloration of green tea, and oxidation of banana turning black color i.e., it reduces the bacterial contamination [44]. FA and y-oryzanol were found to prevent the photo-oxidation of lutein and astaxanthin in Red sea bream [42]. Due to the structural similarity of FA with normetanephrine (first metabolite of norepinephrine), it mimics the stimulatory effect on somatotropin in pituitary gland and hence enhance the growth [15].

4.4 Ferulic acid as precursor of vanillin

In past years, the occurrence of vanillin as an intermediate in the microbial degradation of FA has been reported by many research groups [28], [46], [54] and [66]. Natural vanillin has a high demand in the flavor market as it is used as a flavoring agent in foods, beverages, pharmaceuticals and other industries [20]. Industries such as chocolate and ice cream together capture about 75% of the total market of vanillin, while the small amount is used in baking. Vanillin is also used in the fragrance industry for the making of good quality of perfumes, in cleaning products, in fivestock fodder and pharmaceuticals to cover the unpleasant odors or tastes of medicines. Biosynthesis of vanillin from FA (Fig. 4) is achieved by the conversion of FA into feruloyl SCoA (reduced feruloyl coenzyme A) using ATP (adenosine triphosphate) and CoASH (reduced coenzyme A). Removal of water and CH₃COSCoA (reduced acetyl coenzyme A) molecule converts feruloyl SCoA finally into vanillin. In addition of above functions, vanillin can also be used in visualization of components in thin layer chromatography staining plates. These stains give a range of colors for the different components. *Pseudomonas putida* is found to convert the FA to into vanillic acid very efficiently.

Fig. 4. Protozial representation of proconversion of fertilic acid into vanitin

Figure options 🔝

4.5. Uses of ferulic acid in cosmetics

ROS (reactive oxygen species) formation is the main cause of UV-induced skin damage. During the exposure to radiation, a photon interact with *trans*-urocanic acid in skin and generate singlet oxygen that can activate the entire oxygen free radical cascade with oxidation of proteins, nucleic acid and lipids, resulting in the photoaging changes and skin cancer [0] and {7}. FA is a strong UV absorber [17], and skin absorbs it at the same rate at acidic and neutral pH [68]. FA structure is similar to tyrosine, and it is believed that FA inhibits the melanin formation through competitive inhibition with tyrosine. It gives a considerable protection to the skin against UVB-induced erythema in a time dependent manner [68]. FA alone or in alliance with vitamin E and vitamin C provides about 4–8 fold protection against solar-simulated radiation damage on most likely interacting prooxidative intermediates. Successful photoprotection with solar-simulated ultraviolet induced photodamage was recorded on a pig (*in vivo* experiments) by using a mixture of FA (0.5%), vitamin E (1%) and, vitamin C (15%) [38].

4.6. Ferulic acid as an anticancer agent

In the etiology of cancer, free radical plays a major role; therefore antioxidants present in diet have fastidious consideration as potential inhibitors of abandoned cell growth. FA's anti-carcinogenic activity is related to its capability of scavenging ROS and stimulation of cytoprotective enzymes [6]. By doing this, FA diminished lipid peroxidation, DNA single strand rupture, inactivation of certain proteins, and disruption of biological membranes [26]. Due to the construction of free radicals in leucocytes and other cells, nicotine is supposed to have a key role in the pathogenesis of lung cancer. In 2007, Sudheer et al worked on rat peripheral blood lymphocytes, and concluded that FA (10–150 μM) counteracted nicotine-induced lipid peroxidation and reduction in GSH (reduced glutathione) level [75].

Stimulation of detoxification enzyme seems to be another mechanism for the anticarcinogenic action of FA; it enhances the UGTs enzyme (UDP-glucuronosyltransferases) activity, drastically in liver. Due to this reason better detoxification of carcinogenic compounds occurs, and subsequently leads to the prevention of gastrointestinal cancer (31). UGTs catalyzes the conjugation of exogenous and endogenous compounds with glucuronic acid, which results in less biologically active molecules with enhanced water solubility that facilitates the excretion through bile or urine [36]. FA also inhibits the growth of colon cancer cells [52]. Further, its inhibitory

or urine [36]. FA also inhibits the growth of colon cancer cells [52]. Further, its inhibitory effect on carcinogenesis of colon cancer in rats was confirmed by *in vivo* test [29]. Polyphenols, including FA, comprise tumor-suppression potential in breast cancer cell lines as well [50]. FA has been claimed to decrease the side effects of chemo and radiotherapy of carcinomas by increasing the natural immune defense [40].

4.7. Pulmonary protection and cardiovascular effect of feruirc acid

Nicotine is one of the major hazardous compounds of cigarette smoke [84]. It causes the oxidative cellular injury by increasing the lipid peroxidation, which is supposed to play a key role in the pathogenesis of several smoking related diseases [89]. Due to the administration of FA, a reverse reaction occurs in the damage, which was induced by nicotine. FA causes a significant increase in the endogenous antioxidant defense, which protect the cells from oxidative damage. FA protects the membrane by successfully quenching of free radicals from attacking the membrane. It also inhibits the leakage of marker enzymes into circulation, and increase the antioxidant status in circulation [74]. It has been shown that the blood pressure was decreased in both SHRSP (stroke-prone spontaneously hypertensive) rats and SHR (spontaneously hypertensive rats) with a maximum effect (-34 mmHg) after 2 h of oral intake of FA (1–100 mg/kg body weight) [59] and [77]. Studies also showed that sodium salt of FA decreases the serum lipids, inhibits platelet aggregation and prevents thrombus formation [§3].

4.8 Ferulic acid as food preservative

Report on the first use of FA as food preservative was done in Japan; to preserve oranges and to inhibit the autoxidation of linseed oil [79]. With the addition of copper (Cu) or iron (Fe), phenolic compounds were also found to stabilize the lard and soybean oil. Mixtures of FA and amino acids or dipeptides (such as glycylglycine or alanylalanine) exert a synergistic inhibitory consequence on the peroxidation of linoleic acid. Complete inhibition of oxidation of biscuits (30 °C for 40 days) was done by using the mixture of FA (0.05%) and glycine (0.5%) [60].

5. Additional applications of ferulic acid

Besides the above discussed functions, it also has key role in numerous other applications. It has been proved by *in situ* experiments that mixture of FA and tetramethylpyrazine showed the synergistic inhibitory effect on spontaneous movement in rat [65]. FA utilizes the anthocyanin-type pigments present in tulip flowers having cosmetic properties to stabilize the rouge against oxidative discoloration [31]. FA also increases the stability of cytochrome c, and hence inhibits the apoptosis, which is induced by cytochrome c [88]. Recently, *in vitro* and *in vivo* angiogenic activity of FA *via* stimulation of the VEGF, PDGF and HIF-1α pathways has been done, and concluded that the angiogenic effects of FA occur *via* two pathways which are called as PI3K and MAPK pathway. FA is a new potential therapeutic agent for ischemic diseases [39], it also enhances IgE binding to pea nut allergens [13]. Different functional role and biomedical applications of FA are schematically represented in Fig. 5.

Fig. 5 Different applications of fertilic acid. Fertilic acid known to exhibit a variety of biomedical, pharmaceutical and industrial applications.

Figure options 🐨

It has been proved that FA acts as a β -secretase modulator with therapeutic potential against Alzheimer's disease [53], and found to improve the structure and function of the heart blood vessels, liver, and kidneys in hypertensive rats [2]. Uses of FA grafted chitosan as an antioxidant in food, cosmetics, food packaging, biomedical and pharmaceutical is recently discovered [70]. In plants, environmental stress can be resolute by the use of FA amides with putrescine, tyramine or tryptamine. FA amides with amino acid or dipeptides are used as preservatives in baking [17]. Researchers have also proved that at lower concentration (25–50 μ M), FA reduced the cell death in hippocampal neuronal cells induced by peroxyl radical, while at higher concentration (250–500 μ M), it diminished the hydroxyl radicals induced by protein oxidation and peroxidation of lipid [30]. FA (200 μ M) helped in the reduction of lipid peroxidation in peripheral blood mononuclear cells induced by H₂O₂[33]. Administration of FA for a very long time inhibits the expression of endothelial and inducible NOS (iNOS) in mouse, hippocampus and rat cortical neurons [12] and [76].

6. Conclusions

Here, this review article provides adequate information on natural sources, synthesis, structure, metabolism, and uses of FA in biomedical as well as other industries. Industries such as cosmetic, pharmaceutical, baking, ice cream, chocolate, food processing have high demand for FA. Most of the activities as shown by FA can be

attributed to its potent antioxidant capacity because of conjugation in its nucleus and side chain. These investigations greatly support the regular ingestion of FA for providing significant protection associated with a range of oxidative stress related diseases. Significant efforts have been made for the development of biotechnological processes as the consumption of natural products in food, cosmetics, pharmaceutical and other industries, and are increasing day by day that is why the demand and supply of natural products should be maintained. This review deals with the major attainments in the field of extraction, metabolism and applications of ferulic acid, which can be used for betterment of mankind.

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å Corresponding author, Tel.; +91 1332 285530; fax; +91 1332 273560

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To:

SESDERMA, S.L. (tm@sanchelima.com)

Subject:

U.S. TRADEMARK APPLICATION NO. 87202675 - FERULAC PEEL - 360453.1

Sent:

12/17/2016 8:32:52 PM

Sent As:

ECOM119@USPTO.GOV

Attachments:

UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)

U.S. TRADEMARK APPLICATION

USPTO OFFICE ACTION (OFFICIAL LETTER) HAS ISSUED ON 12/17/2016 FOR U.S. APPLICATION SERIAL NO. 87202675

Please follow the instructions below:

(1) TO READ THE LETTER: Click on this link or go to http://tsdr.uspto.gov, enter the U.S. application serial number, and click on "Documents."

The Office action may not be immediately viewable, to allow for necessary system updates of the application, but will be available within 24 hours of this e-mail notification.

(2) TIMELY RESPONSE IS REQUIRED: Please carefully review the Office action to determine (1) how to respond, and (2) the applicable response time period. Your response deadline will be calculated from 12/17/2016 (or sooner if specified in the Office action). For information regarding response time periods, see http://www.uspto.gov/trademarks/process/status/responsetime.jsp.

Do NOT hit "Reply" to this e-mail notification, or otherwise e-mail your response because the USPTO does NOT accept e-mails as responses to Office actions. Instead, the USPTO recommends that you respond online using the Trademark Electronic Application System (TEAS) response form located at http://www.uspto.gov/trademarks/teas/response forms.jsp.

(3) QUESTIONS: For questions about the contents of the Office action itself, please contact the assigned trademark examining attorney. For *technical* assistance in accessing or viewing the Office action in the Trademark Status and Document Retrieval (TSDR) system, please e-mail TSDR@uspto.gov.

WARNING

Failure to file the required response by the applicable response deadline will result in the ABANDONMENT of your application. For more information regarding abandonment, see http://www.uspto.gov/trademarks/basics/abandon.jsp.

PRIVATE COMPANY SOLICITATIONS REGARDING YOUR APPLICATION: Private companies not associated with the USPTO are using information provided in trademark applications to mail or e-mail trademark-related solicitations. These companies often use names that closely resemble the USPTO and their solicitations may look like an official government document. Many solicitations require that you pay "fees."

Please carefully review all correspondence you receive regarding this application to make sure that you are responding to an official document from the USPTO rather than a private company solicitation. All official USPTO correspondence will be mailed only from the "United States Patent and Trademark Office" in Alexandria, VA; or sent by e-mail from the domain "@uspto.gov." For more information on how to handle private company solicitations, see http://www.uspto.gov/trademarks/solicitation warnings.jsp.

EXHIBIT D

EXHIBIT D

Response to Office Action

The table below presents the data as entered.

Input Field	Entered
SERIAL NUMBER	87202675
LAW OFFICE ASSIGNED	LAW OFFICE 119
MARK SECTION	
MARK	https://tmng-al.uspto.gov/resting2/api/img/87202675/large
LITERAL ELEMENT	FERULAC PEEL
STANDARD CHARACTERS	YES
USPTO-GENERATED IMAGE	YES
MARK STATEMENT	The mark consists of standard characters, without claim to any particular font style, size or color.
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ARGUMENT(S)

Sir/Madam: The Office has rejected the registration application for FERULAC PEEL as being generic term. Applicant respectfully disagrees. A. Applicant's Mark is not Generic The Office has not met its burden that relevant consumers in the chemical peel industry will understand the term FERULAC to be a generic term. The Office has presented dictionary evidence showing that "ferulic" is a generic term but has not presented any evidence showing a connection between FERULAC and ferulic. Attached to this Response, Applicant attaches evidence showing that the term FERULAC is not understood to be a generic term. The search results of the keyword FERULAC from the Google search engine do not display results from several companies selling ferulic related products as the Office would expect with its initial genericness position. In fact, the only company that appears on the search results is the Applicant's showing its mark FERULAC. This shows the distinctiveness of the mark FERULAC. In fact, the search results do not even pick up a misspelling and suggest the correct spelling. In addition, Applicant has used the mark FERULAC for over seven years in interstate commerce which further establishes the likelihood that FERULAC is considered a distinctive mark due to the many impressions made upon users during that time. Also, Applicant has acquired fame through its use of these intentional misspellings in this industry. Consumers have come to know that this is a branding strategy emanating from Applicant. Other marks used by Applicant in this manner are MANDELAC which is a play on mandelic, AZELAC which is a play on azelaic, and ACGLICOLIC which is a play on GLYCOLIC. These few examples are illustrated in evidence showing same attached herein. Applicant also attaches evidence of its registration of AZELAC further showing the notoriety Applicant has obtained from its play on words of generic terms which are active ingredients in Applicant's products. Applicant argues that its mark is suggestive and relevant consumers must undertake a mental step of identifying, first the active ingredient in the product, and then realizing that it is a play on words of that active ingredient. Additionally, Applicant would like to point out the sophistication of the relevant consumers as shown from the market that Applicant targets. Applicant sells high end cosmetic products as demonstrated from the prices seen in thee attached evidence. This weighs in favor of the Applicant tending to prove that consumers will likely be more scrupulous when deciding to purchase Applicant's products and more likely to identify the difference between Applicant's distinctive marks and the generic terms for the active ingredients therein. In the alternative, Applicant also attaches a Section 2(f) affidavit in the event the Office finds the mark to be descriptive rather than suggestive. B. Any Doubt Regarding the Registrability Should be Resolved in Applicant's Favor Applicant was refused registration of its FERULAC PEEL mark under Section 2(e)(1). The TTAB has recognized that the intent of Section 2(e)(1) is to protect the competitive needs of others, that is "descriptive words must be left free for public use." In re Waverly Inc., 27 U.S.P.Q.2d 1620, 1623 (TTAB 1993). Moreover, when the question of registrability is a "close case, any doubt on the matter should be resolved in applicant's favor, and the mark should be published for purposes of opposition." Id. at 1624. Those in the industry can decide for themselves whether or not they believe that registration of the mark FERULAC PEEL will inhibit their right to compete with Applicant. See Id . III. CONCLUSION Applying the factors set forth above and the requirements of Trademark Act Section 2(e) to the present case, the Applicant's mark is not merely descriptive. Accordingly, and based on the facts in the present case, Applicant respectfully requests that the Office withdraw the descriptiveness objection, and approve the Applicant's Mark for publication. In the alternative, Applicant requests that the Office accept its Section 2(f) affidavit to find that Applicant's mark has acquired distinctiveness in view of its continuous use of over five years.

EVIDENCE SECTION

EVIDENCE FILE NAME(S)

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\\\TICRS\EXPORT17\IMAGEOUT17\872\026\87202675\xml5\ROA0003.JPG evi 9521512350-20170523051826009734 Ferulac_Resp.pdf \\\\TICRS\EXPORT17\IMAGEOUT17\872\026\87202675\xml5\ROA0004.JPG evi 9521512350-20170523051826009734 Ferulac_Resp2.pdf \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
evi_9521512350-20170523051826009734 Ferulac_Resp.pdf \text{\text{VTICRS\EXPORT17\IMAGEOUT17\872\026\87202675\xml5\ROA0004.JPG}} evi_9521512350-20170523051826009734 Ferulac_Resp2.pdf \text{\text{\text{VTICRS\EXPORT17\IMAGEOUT17\872\026\87202675\xml5\ROA0005.JPG}} The evidence includes Google search results showing that upon search FERULAC the search engine returns results relating to Applicant's company. The evidence also includes Applicant's registration for AZELAC, another play on words of its active ingredient. The evidence also includes several products Applicant sells that also include the same play on words to show that this branding strategy is one familiar with consumers to identify Applicant as the source of the products and not just a generic name. rent) 003 Section 1(a)
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evi_9521512350-20170523051826009734 Ferulac_Resp2.pdf \(\text{VTICRS\EXPORT17\IMAGEOUT17\872\026\87202675\xml5\ROA0005.JPG}\) The evidence includes Google search results showing that upon search FERULAC the search engine returns results relating to Applicant's company. The evidence also includes Applicant's registration for AZELAC, another play on words of its active ingredient. The evidence also includes several products Applicant sells that also include the same play on words to show that this branding strategy is one familiar with consumers to identify Applicant as the source of the products and not just a generic name. Tent) 003 Section 1(a)
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/Christian Sanchelima/
Christian Sanchelima
Attorney of Record

DATE SIGNED	05/23/2017
AUTHORIZED SIGNATORY	YES
FILING INFORMATION SECTION	
SUBMIT DATE	Tue May 23 06:53:27 EDT 2017
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Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Response to Office Action

To the Commissioner for Trademarks:

Application serial no. 87202675 FERULAC PEEL(Standard Characters, see https://tmng-al.uspto.gov/resting2/api/img/87202675/large) has been amended as follows:

ARGUMENT(S)

In response to the substantive refusal(s), please note the following:

Sir/Madam: The Office has rejected the registration application for FERULAC PEEL as being generic term. Applicant respectfully disagrees. A. Applicant's Mark is not Generic The Office has not met its burden that relevant consumers in the chemical peel industry will understand the term FERULAC to be a generic term. The Office has presented dictionary evidence showing that "ferulic" is a generic term but has not presented any evidence showing a connection between FERULAC and ferulic. Attached to this Response, Applicant attaches evidence showing that the term FERULAC is not understood to be a generic term. The search results of the keyword FERULAC from the Google search engine do not display results from several companies selling ferulic related products as the Office would expect with its initial genericness position. In fact, the only company that appears on the search results is the Applicant's showing its mark FERULAC. This shows the distinctiveness of the mark FERULAC. In fact, the search results do not even pick up a misspelling and suggest the correct spelling. In addition, Applicant has used the mark FERULAC for over seven years in interstate commerce which further establishes the likelihood that FERULAC is considered a distinctive mark due to the many impressions made upon users during that time. Also, Applicant has acquired fame through its use of these intentional misspellings in this industry. Consumers have come to know that this is a branding strategy emanating from Applicant. Other marks used by Applicant in this manner are MANDELAC which is a play on mandelic, AZELAC which is a play on azelaic, and ACGLICOLIC which is a play on GLYCOLIC. These few examples are illustrated in evidence showing same attached herein. Applicant also attaches evidence of its registration of AZELAC further showing the notoriety Applicant has obtained from its play on words of generic terms which are active ingredients in Applicant's products. Applicant argues that its mark is suggestive and relevant consumers must undertake a mental step of identifying, first the active ingredient in the product, and then realizing that it is a play on words of that active ingredient. Additionally, Applicant would like to point out the sophistication of the relevant consumers as shown from the market that Applicant targets. Applicant sells high end cosmetic products as demonstrated from the prices seen in thee attached evidence. This weighs in favor of the Applicant tending to prove that consumers will likely be more scrupulous when deciding to purchase Applicant's products and more likely to identify the difference between Applicant's distinctive marks and the generic terms for the active ingredients therein. In the alternative, Applicant also attaches a Section 2(f) affidavit in the event the Office finds the mark to be descriptive rather than suggestive. B. Any Doubt Regarding the Registrability Should be Resolved in Applicant's Favor Applicant was refused registration of its FERULAC PEEL mark under Section 2(e)(1). The TTAB has recognized that the intent of Section 2(e)(1) is to protect the competitive needs of others, that is "descriptive words must be left free for public use." In re Waverly Inc., 27 U.S.P.Q.2d 1620, 1623 (TTAB 1993). Moreover, when the question of registrability is a "close case, any doubt on the matter should be resolved in applicant's favor, and the mark should be published for purposes of opposition." Id. at 1624. Those in the industry can decide for themselves whether or not they believe that registration of the mark FERULAC PEEL will inhibit their right to compete with Applicant. See Id. III. CONCLUSION Applying the factors set forth above and the requirements of Trademark Act Section 2(e) to the present case, the Applicant's mark is not merely descriptive. Accordingly, and based on the facts in the present case, Applicant respectfully requests that the Office withdraw the descriptiveness objection, and approve the Applicant's Mark for publication. In the alternative, Applicant requests that the Office accept its Section 2(f) affidavit to find that Applicant's mark has acquired distinctiveness in view of its continuous use of over five

years.

EVIDENCE

Evidence in the nature of The evidence includes Google search results showing that upon search FERULAC the search engine returns results relating to Applicant's company. The evidence also includes Applicant's registration for AZELAC, another play on words of its active ingredient. The evidence also includes several products Applicant sells that also include the same play on words to show that this branding strategy is one familiar with consumers to identify Applicant as the source of the products and not just a generic name. has been attached.

Original PDF file:

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Converted PDF file(s) (1 page)

Evidence-1

Original PDF file:

evi_9521512350-20170523051826009734_._Azelac_Reg.pdf

Converted PDF file(s) (1 page)

Evidence-1

Original PDF file:

evi 9521512350-20170523051826009734 . Ferulae Resp.pdf

Converted PDF file(s) (1 page)

Evidence-1

Original PDF file:

evi_9521512350-20170523051826009734_. Ferulac_Resp2.pdf

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Evidence-1

CLASSIFICATION AND LISTING OF GOODS/SERVICES

Applicant proposes to amend the following class of goods/services in the application:

Current: Class 003 for non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulac acid

Original Filing Basis:

Filing Basis: Section 1(a), Use in Commerce: The applicant is using the mark in commerce, or the applicant's related company or licensee is using the mark in commerce, on or in connection with the identified goods and/or services. 15 U.S.C. Section 1051(a), as amended. The mark was first used at least as early as 05/30/2010 and first used in commerce at least as early as 05/30/2010, and is now in use in such commerce.

Proposed:

Tracked Text Description: Non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulae acid; all of the foregoing containing ferulae acid

Class 003 for Non-medicated exfoliating preparations for skin; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid

Filing Basis: Section 1(a), Use in Commerce: The applicant is using the mark in commerce, or the applicant's related company or licensee is using the mark in commerce, on or in connection with the identified goods and/or services. 15 U.S.C. Section 1051(a), as amended. The mark was first used at least as early as 05/30/2010 and first used in commerce at least as early as 05/30/2010, and is now in use in such commerce.

SIGNATURE(S)

Response Signature

Signature: /Christian Sanchelima/ Date: 05/23/2017

Signatory's Name: Christian Sanchelima Signatory's Position: Attorney of Record

Signatory's Phone Number: 3052976491

The signatory has confirmed that he/she is an attorney who is a member in good standing of the bar of the highest court of a U.S. state, which includes the District of Columbia, Puerto Rico, and other federal territories and possessions; and he/she is currently the owner's/holder's attorney or an associate thereof; and to the best of his/her knowledge, if prior to his/her appointment another U.S. attorney or a Canadian attorney/agent not currently associated with his/her company/firm previously represented the owner/holder in this matter: (1) the owner/holder has filed or is concurrently filing a signed revocation of or substitute power of attorney with the USPTO; (2) the USPTO has granted the request of the prior representative to withdraw; (3) the owner/holder has filed a power of attorney appointing him/her in this matter; or (4) the owner's/holder's appointed U.S. attorney or Canadian attorney/agent has filed a power of attorney appointing him/her as an associate attorney in this matter.

Serial Number: 87202675

Internet Transmission Date: Tue May 23 06:53:27 EDT 2017

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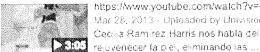
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AZELAC

Word Mark

AZELAC

Goods and Services

IC 003, US 001 004 006 050 051 052, G & S: Cosmetics; Facial creams; Beaulotions; Hair lotions; Lotions for face, body and hair; Skin care preparations, na

USE IN COMMERCE: 20010924

Standard Characters Claimed

Mark

Drawing

(4) STANDARD CHARACTER MARK

Code

Serial Number

86857238

Filing Date

December 22, 2015

Current

Basis

1A

Original

Filing Basis

1A

Opposition

Published for July 12, 2016

Registration

Number

5048371

Registration

Date

September 27, 2016

Owner

(REGISTRANT) SESDERMA, S.L. LIMITED LIABILITY COMPANY SPAIN Mas

Attorney of

Record

Christian Sanchelima,

Type of Mark TRADEMARK

Register

PRINCIPAL-2(F)

Live/Dead Indicator

LIVE

1/(0/VED):/(b) ES

OFERTAS DESTACADAS

LO MÁS VENDIDO

Ver todas las novedades





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What Is Ferulic Acid, Anyway? | Allure

https://www.eilure.com/galloryy/etta-tia-terollo-acid × Apr.C, 2015 - Ski scuticals C.E. Forulic Combanton Antioxident Tradment. A dem favorite, this serum's combination of terulic acid and vitamins C and E combats free-radical damage, plus ups skin's natural UVA/UVB protection eightfold.

Ferulic Acid - Ingredients To Die For

www.ingredientstodiefor.com • PRODUCT CATALOG + And-Oxidents • The continuition of Vitantins C, and E, along with Perulic Acid was made very popular by Stan Couloals, C. E. Farulic Serum, * which was used for the studies, and is a paterted process. The combination, in their C.-E. Farulto Serpiu, was 15% Axcorbin Acid, 1% Vicenia F. and C.B% Farulto

Skincare Ingredients Alphabet: What Is Ferulic Acid? | British Vogue www.vogue.co.uk/article/skindare-ingredients-what-is-turulic-acid v

Nov. 19, 76 (6). Ferrutic actif to an anticoldent found in the cell walls of plants such as (4.6 and one and the ceaus of applies and orangos, where a plays a key

What Is Ferulic Acid - Truth In Aging

https://www.tuthinaging.com/review//whot-is-in-furlic-racid ▼

J.d.21. 2038 - For this acid is found in the cell wills of pients such as wheat new peanuts, neargus and approxilt seems to be particularly abunders in collect .

What is Ferulic Acid and How Does it Benefit Skin? - Anti Aging Serum https://www.bestanliaging.com/cosmecauticals/familic-acid/ *
Fernite acid is procably one of the most powerful anti-oxidants available. While the cross discovered

so rer provide a protective cover against the fire radicals.

Is Ferulic Acid Good For Your Skin? - The Skin Care Reviews

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What we Ferulic Acid benefits for skin and how can you take full advantage of it in your akinemic matine? What is trans and what is natural Portitio Acid?

Ferulic Acid - The Dermatology Review

www.thedormrevlew.com/ternitc-acid/ > Fernalic Acid in Skin Care. Ferralic Acid is found naturacy in the loaves and seeds of most plants. It is aspecially high in such foods as nee, wheat, and oals but .

ferulic acid | Cosmetic Ingredient Dictionary | Paula's Choice

www.paulascholog.com/lingredient-dictionary/antibxidants/ferulic-acid html • Plant-based phenetic anti-present rital is foon; in brain among other plants. Research has shown true is provides associate benefits to skin white enhancing the

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https://www.youtube.com/watch?v=NVN6qH4yxog v
Sep 75-2014-styloaded by HiErACNE CHANNEL
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to play a say role in the plants...

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C.F. Parotic features a symmetristic antioxidant combination of 15% pure vitamin C (L-escorbic acid), 1% vitamin E (clpha tocophero), and 0.5% facults sold to

Ferulic acid Chemical compound

Ferulic acid is a hydroxycinnamic acid, a type of c an abundant phenoic phytochemical found in pla such as arabinoxylans as covalent side chains. It cinnamic acid. Wikipedia

Formula: CigHioO4 Molar mass: 194.18 g/mol Solubility in water: 0.78 kg/m² Density: 1.14 g/cm³ Appearance; Crystathne Powdor PubChem CID: 445858

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AGE DEFYING FACIAL

This intense anti-wrinkie procedure protects cellular DNA and prolongs skin's youth. Powerful anti-aging results! This facial includes firming techniques, and erasing of discoloration creating a smooth clear surface. \$125

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Organic ingredients are used in this treatment focusing on correcting, balancing, and preventing moderate to severe acres symptoms. \$140

INGROWN HAIR BE GONE

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Detox through your feet with this relaxing detox, both. This treatment has been reported to help cleanise the body from heavy metals, yeast, cellular debris, year, and mucus, 5-8.

EAR CANDLING

This relaxing process is a gentle vacuum of the ear that deep cleans wax build up from deep within the car canal. Sinus pressure and allergies are relieved in this treatment as well. \$35

V-STEAM

The ancient Korean treatment also known as the yori steam or Korean hip teath provides a steam treatment for the vagina and arise to release toxins. A combination of up to 30 herbs are steamed to cleanise, nourish, and tone the cervix, uterus, vaginal and arise tissues. Other passible benefits include the relief of menstrual cramps, minor nactorial infections, and floroids. This treatment is also known to improve tertility. See



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Chemical Peels

We offer a wide array of chemical peels at All About Skin Laser Center. Glycolic Acid Peels which vary in strength, and TCA peels or Trichloroacetic Acid peels, Amino Acid, Latic Acid, Salicylic Acid, Ferulac Acid also in different strengths.



Who can benefit from Chemical Peels?

Chemical Peels benefit those who have acne, sun damaged and or aging skin. The peels are applied by a trained professional at the All About Skin claser Center. Once applied to the face and after a specific amount of time the area is neutralized. The process causes old skin cells to slough off texfoliate). This causes the encouragement of the regrowth of new cells, and at a more rapid rate. The new cell growth in turn encourages production of collagen to the skin, reduces pore size and helps to reduce fine lines and wrinkles as well as pignentation and clogged pores. Depending on the strength of the chemical peel used, the patient will experience some superficial peeling which usually involves redness followed by scaling that usually lasts 3 - 5 days. Peels are usually done on a monthly basis. We often us chemical peels in combination with other treatment to achieve more supple healthy looking and feeling skin.



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Facials

Chemical Peels (http://hairremovallasvegas.net/wp-content/uploads/2012/04/Chemical-Peel-Las-Vegas.png)

We offer a wide array of *chemical peels* at All About Skin Laser Center: Glycolic Acid Peels which vary in strength, and TCA peels or Trichloroacetic Acid peels, Amino Acid, Latic Acid, Salicylic Acid, Ferulac Acid also in different strengths.



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Lacialo - All Auda Dalli

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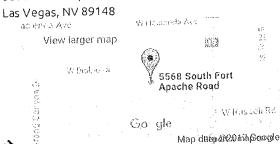
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Ferulac Nano-Peels

FERULAC NANO-PEELS WESTON

Ferulac peel system is a very potent and safe peel system. Due to its composition, the main indication of this system is the photoageing with benefits in melasma, acne, and rosacea. Ferulac Peel is able to reduce signs of photoaging such as fine wrinkles, promote even skin tone by reducing hyperpigmentation, and return skin to its natural brightness by stimulating cell replacement. Overall skin texture is said to improve, and the treatment boosts hydration by increasing the level of ceramides in the skin to help prevent water loss.

For patients with rosacea and acne, the treatment can reduce sebum production, improve the appearance of scars, and diminish pore size.

Beginning with the first treatment, you will feel your skin smoother and tighter and it looks lighter with a youthful glow. Immediately visible results in the skin color improvement, making this peel one of the most valuable and beneficial products to our clients.

Ferulac peel system could be used in all seasons (including summer) and with all skin types and races. It offers a simple, practical, and safe new way to perform peeling treatments.

Ferulac Peel will not produce burning or itching during application. It can be applied every 15 days, and series of 6–12 treatments typically produce the best results.

- Easy to integrate with your daily skincare regimen recommended by our professional staff.
- No irritation (itching or burning), and no risk of hyperpigmentation or hypopigmentation.



• Indicated for all skin types, ethnicities and for use in any season.

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· Paraben FREE

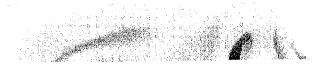
SPOTLESS TARGET PEEL

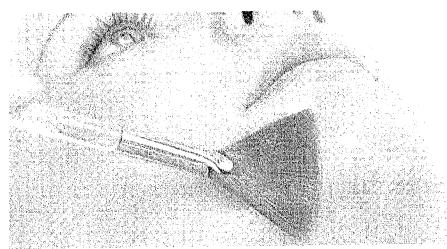
Specifically designed to eliminate Dark Spots, Lentigines, Sunspots, Acne-scars (Post Inflammatory Hyperpigmentation), Vascular Melasma and ALL types of Hyperpigmentation. The Target Nano-Peel combines powerful lightening agents with growth factors that work from the deepest layer of your skin. As its name describes, this treatment only targets the current lesions and prevents forthcoming darkening of the skin by inhibiting future Melanin production. The active ingredients are encapsulated in liposomes and peptides which guarantee "the safety and precision" of the treatment, with no risk of irritating the Dermis or causing any side-effects! You will experience an instant brightening of the skin, improved complexion, and a smooth texture!

AGELESS FERULAC SYSTEM

Our patented anti-aging formula features a cocktail of mega antioxidants that include Stem-cells, Growth-factors, DMAE, DNA-repairing enzymes, Vitamins A & C, Ferulic Acid, Zinc and the purest form of Amino-acids. After just **ONE** treatment, the appearance of fine wrinkles, dark-spots, and large pores are reduced. Elastin and Collagen levels in your skin automatically increase; giving your face & neck an immediate lift! The production of ceramides is instantly recharged improving your skin's ability to retain its natural moisture. **This treatment repairs previous photo-damage while increasing cell-turn over for months!**

WHAT IS FERULAC ACID AND WHY IS IT SO IMPORTANT, ESPECIALLY DURING HIGH UV MONTH?





Ferulac acid is found in the cells walls of plants such as wheat, rice, peanuts, oranges, and apples. It seems to be particularly abundant in coffee and amaranth (the name comes from Greek for "the one that does not wither," presumably as a result of all the ferulac acid). It is an antioxidant that can seek and destroy several different types of free radical — "superoxide," hydroxyl radical," and "nitric oxide" - according to a 2002 Japanese study.

A 2004 Italian study concluded that ferulac acid is a more powerful antioxidant than alpha-tocopherol (vitamin E), beta-carotene, and ascorbic acid (vitamin C). Meanwhile, Duke University researches blended it with vitamin C and E and proclaimed it a "potent ubiquitous plant anti-oxidant." In fact, it was discovered to act synergistically with other antioxidants and, in this case, rendered the vitamin C and E more powerful. The Duke study found it particularly good for preventing sun damage, and studies elsewhere have demonstrated that exposure to ultraviolet light actually increases the antioxidant power of ferulac acid.

Naturally this super antioxidant does more than prevent wrinkles. It fights cancer, is helpful for diabetics and even reduces hot flashes.

FERULAC PEEL: THE RESULTS

With Professional Peel treatments the skin undergoes a complete transformation. With visible benefits after the first application, which become more pronounced with time:

- · The skin will soft and smooth
- · The texture will become fine and translucent

- · The color will be healthy and radiant
- · Wrinkles, spots and other aging signs are minimized
- The facial features become more relaxed and the contour becomes firmer and more toned

FERULAC PEEL: FEATURE

- Immediately after peeling, clients can observe very soft skin (better skin texture and smoothness), very bright and shiny.
- Improves pigmented lesions (melasma, lentigo, moles) from the first application.
- It can be used in all seasons, and on any types of skin and races. For best results six treatments needed every 7-14 days.

FERULAC PEEL: ADVANTAGE

- Simple process: Short skin contact time
- Easy to integrate with daily practice recommended by Esthetician
- No irritation (itching or burning), and no risk of hyperpigmentation
- Effective anti-aging: reduces wrinkles
- Depigmentation action: reduces hyperpigmentations, lentigos, melasma and postinflammatory of hyperpigmentation, and promotes an even skin tone
- · Improves the skin texture
- Useful for **acne vulgaris** and **acne scars**. Reduces the pore size
- Hydration: Increases the level of ceramides and improve the defending function of the skin preventing the water loss through the skin
- · Stimulate cell replacement
- · Improves the skins natural brightness

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Liposomal Ferulac

What is Ferulac acid and why is it so important, especially during high UV month?

Ferulac acid is found in the cells walls of plants such as wheat, rice, peanuts, oranges, and app amaranth (the name comes from Greek for "the one that does not wither," presumably as a resuseek and destroy several different types of free radical – "superoxide," hydroxyl radical," and "niti

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Ferulac Peel: Advantage

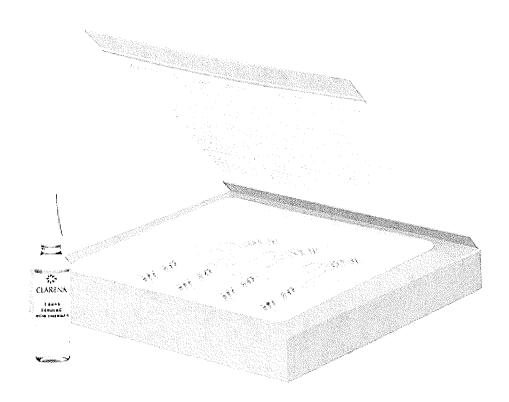
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7 days Ferulac Acid Therapy

Anti-wrinkles therapy preparing the skin for acid exfoliation

A seven-day serum preparing the skin for acid exfoliation treatments. For mature skin 40+. The serum contains a lowconcentration Ferulac Acid, prepares the skin for the absorption of high-concentration acids which form the basis of stronger exfoliating cosmetics used in beauty salons. It gently peels the epidermis, stimulates keratinization as well as the synthesis and maturing of ingredients of the intercellular matrix. And it is the first step towards anti-wrinkles therapy.

Package: 7 x 3 ml Code: 1293

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CHEMICAL PEEL with ferulic acid (Ferulac) - face / face, neck and décolletage







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Ferulac Peel Classic 40000623

Fights photoaging and sun spots

£49.50

ADD TO CART

1



DESCRIPTION

Ferulac Peel Classic contains Ferulac acid which has natural antioxidant properties, protecting the skin from free radicals. It also protects skin from UVA and UVB radiation. Pigmentation is lightened.

Phloretin stops the activity of elastase responsible for degradation of elastin fibers, by attaching to lipid surfaces.

What does Ferulac Peel Classic contain?

- 12% Ferulac acid
- 5% Phloretin
- pH 4.0-5.0

What are the benefits of using Ferulac Peel Classic?

Use for:

- Photoaging
- Sun Spots

Directions for use

Cleanse the skin thoroughly before applying 2-3 coats. Massage to help penetration of the peel. Once the active ingredients have completely absorbed, a white mask will appear.



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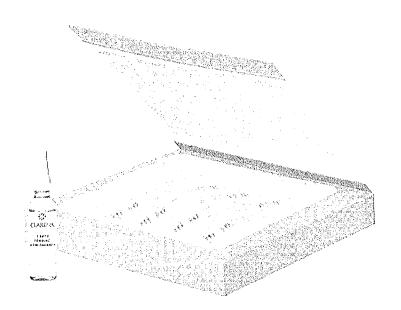
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Anti-wrinkles therapy preparing the skin for acid exfoliation

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Package: 7 x 3 ml Code: 1293

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Sa oled siin: Dr. Niine Nahakliinik: Beauty services: Services by a cosmetician

Services by a cosmetician

Services by a cosmetician - chemical peeling of the skin and the microneedling procedure

Chemical peeling of the skin is a procedure involving the removal of the lifeless layer of cells which causes superficial dryness and unevenness of the skin. At the same time, the lower layers of the skin and synthesis of collagen are stimulated which ensure the elasticity of the skin. The selection of methods and products used for chemical peeling enable finding the most suitable individual solution, taking into account the actual skin problem, age-related changes in the skin and the sensitivity of the skin to ensure that the procedure is effective but not too traumatic. Depending on the problem and the characteristics of the skin as well as previous care, it is possible to choose between more delicate and stronger procedures. Hence, chemical peeling of the skin is suitable both for a delicate procedure to

refresh and rejuvenate the skin and for affecting the skin more thoroughly. Some treatments reduce also inflammation, reduces and sebum discharge of the skin.

Chemical peeling is an effective procedure to achieve the following results:

- improvement of the elasticity of aging skin and tightening of the skin;
- smoothing scars, wrinkle lines and skin with large pores;
- · moisturising dry and sealing skin;
- lightening pigment spots and evening out skin colour;
- · cleaning and balancing skin with acne signs or oily skin.

If you have not had a chemical peel before, a previous consultation is necessary. During the consultation, the skin is analysed, questions are asked about your health and an optimal skin care plan and the necessity and length of the pre-procedure preparatory period are determined. It is recommended to have a course of 4–6 chemical peel procedures with 7–14 days between the procedures depending on the strength of the procedure.

Preparation of the skin before a chemical peel: A stronger procedure should be preceded by a preparatory period of at least 2 weeks during which the skin is prepared with creams containing acids or retinol. The person who performs the procedure advises you on the best product choice.

Recovery of the skin after a chemical peel: The skin can be swollen and red on the day after the procedure, thereafter the skin might become dry and start scaling (this might last for 3–4 days). This is why the skin must be effectively moisturised and calmed down with special care products. The person who performs the procedure advises you on the best product choice.

For about 5 days after the procedure, you should not go to a sauna or a pool or do intensive physical training (to avoid blisters which develop due to sweating), perform depilation or undergo other strong cosmetic procedures, use active cosmetic products or remove the scaling of the skin mechanically. Sunbathing and using tanning devices must be avoided for 2 weeks.

Selection of Mediderma/Sesderma procedures:

- Mediderma refreshing treatment for all skin types (during this procedure, the skin is not peeled). This moisturising, refreshing and rejuvenating treatment is based on the coaction of vitamins and antioxidants. The procedure suits all skin types, including sensitive skin. An ideal procedure to refresh the skin before important events and when seasons change.
- Retinol treatment. Retinol or vitamin A regulates keratinization of the skin and reduces its dryness. Retinol treatment is especially suitable for moisturising and evening out the skin; it is also suitable as a preparatory procedure for subsequent chemical peels.
- Ferulac Peels Booster System anti-aging care. This chemical peel is based on ferulac acid. Ferulac acid is an antioxidant with a strong effect which strengthens and tightens the skin, reducing wrinkle lines as well as pigment spots.
- Melaspeel R + SPA lightening care against hyperpigmentation. A combined chemical peel which contains various effective acids and retinol and effectively harmonizes the complexion of the skin. The procedure reduces existing pigment spots and prevents development of new ones.
- Azelac System Peel designed for oily and unclear skin. An azelac acid based chemical peel
 which cleans the skin and regulates sebum production, alleviates inflammation and redness of
 the skin and also reduces development of pimples and comedones and acne signs. The
 procedure helps to reduce rosacea signs and seborrhoeic skin inflammation.

- Strong combined treatment for prepared skin. A strong combined chemical peel with various acids, retinoids and additives. The treatment reduces the signs of aging and rejuvenates the skin significantly by tightening it, smoothing out wrinkle lines and harmonizing the complexion. A strong chemical peel may cause scaling of the skin and always requires special care of the skin before and after the procedure.
- Microncedling procedure. The Nanopore Microneedling device is an electrical device of the newest generation which ensures a safer and painless procedure. The procedure involves a gentle chemical peel, microneedling therapy and application of mesotherapy serums containing growth factors. A gentle chemical peel prepares the skin for the procedure. Microneedling means that micro-channels are made into the skin with fine needles which activate the synthesis of collagen in the skin leading to tighter skin. Serums containing natural growth factors facilitate the renewal process of the skin with their strengthening and tightening effect.

The procedures are performed by cosmetician Külli Krooni.

SATISFACTION SURVEY

Your opinion is important to us if you've visited Dr. Niin's Skin Clinic!

SATISFACTION SURVEY

Ask advise!

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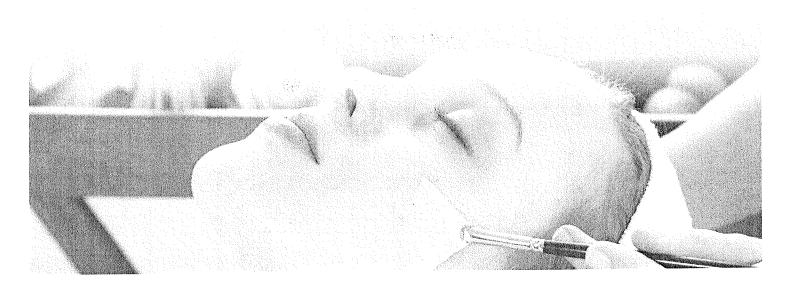
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Begin your Chemical Peel Series



Peel Away Top Layers Of Skin

Getting a chemical skin means that we apply a chemical solution to skin that is unevenly pigmented, sun damaged or wrinkled.

Chemical Peeling treatment is developed 10 help reduce imperfections by causing the top layers of the skin to peel away and

Vi Peel

VI Peel reverses the effects of sun damage, environmental factors. VI Peel is also highly effective clearing acne and impurities. VI Peel is virtually painless and there is no downtime.

reveal fresh new skin. Peels that you use at home provide very superficial peeling, simply exfoliation, and can help you maintain even toned, healthy skin.

Chemical peels performed by estheticians can penetrate much deeper into the skin, will normally cause you to turn red, a lot of time your skin will peel following a peel, and these peels, when performed in a series, can treatment skin conditions such as hyper-pigmentation and acne.

- Improve your skin's ability to hold moisture.
 - Reduce fine lines.
 - Decrease hyper pigmentation.
- Unclog pores and help clear up acne.
 - · Leave your skin smooth.
 - · Make your skin softer.
- Make your skin look more eventoned.

The VI Peel will improve the tone, texture and clarity of the skin; reduce or eliminate age spots, freckles, and hyper-pigmentation, including melasma; soften lines and wrinkles; clear acne skin conditions; reduce or eliminate acne scars; and stimulate the production of collagen, for firmer, more youthful skin.

Ferulac Peel

Ferulac peel system is a very potent and safe peel system. Due to its composition, the main indication of this system is the photoageing with in melasma, acne, and henefits rosacea. Ferulac Peel is able to reduce signs of photoageing such as fine wrinkles, promote even skin tone by reducing hyperpigmentation, and return skin to its natural brightness by stimulating cell replacement. Overall skin texture is said to improve, and the treatment boosts hydration by increasing the level of ceramides in the skin to help prevent water loss.

For patients with rosacea and aone, the treatment can reduce

• Give you a "glow".

sebum production, improve the appearance of scars, and diminish pore size.

Beginning with the first treatment, you will feel your skin smoother and tighter and it looks lighter with a youthful glow. Immediately visible results in the skin color improvement, making this peel one of the most valuable and beneficial products to our clients.

Ferulac peel system could be used in all seasons (including summer) and with all skin types and races. It offers a simple, practical, and safe new way to perform peeling treatments.

Ferulac Peel will not produce burning or itching during application. It can be applied every 15 days, and series of 6-12 treatments typically produce the best results.

Hellandale Beach Skip Canter (786) 747-9797 - Boca Raton Skin Center (561) 929-2443



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EXHIBIT G

EXHIBIT G

To:

SESDERMA, S.L. (tm@sanchelima.com)

Subject:

U.S. TRADEMARK APPLICATION NO. 87202675 - FERULAC PEEL - 360453.1

Sent:

6/16/2017 10:01:44 PM

Sent As:

ECOM119@USPTO.GOV

Attachments:

UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO) OFFICE ACTION (OFFICIAL LETTER) ABOUT APPLICANT'S TRADEMARK APPLICATION

U.S. APPLICATION SERIAL NO. 87202675

MARK: FERULAC PEEL

87202675

CORRESPONDENT ADDRESS:

CHRISTIAN SANCHELIMA, SANCHELIMA & ASSOCIATES, P.A. 235 SW LE JEUNE ROAD MIAMI, FL 33134

CLICK HERE TO RESPOND TO THIS LETTER: http://www.uspto.gov/trademarks/teas/response_forms.jsp

VIEW YOUR APPLICATION FILE

APPLICANT: SESDERMA, S.L.

CORRESPONDENT'S REFERENCE/DOCKET NO:

360453.1

CORRESPONDENT E-MAIL ADDRESS:

tm@sanchelima.com

OFFICE ACTION

STRICT DEADLINE TO RESPOND TO THIS LETTER

TO AVOID ABANDONMENT OF APPLICANT'S TRADEMARK APPLICATION, THE USPTO MUST RECEIVE APPLICANT'S COMPLETE RESPONSE TO THIS LETTER WITHIN 6 MONTHS OF THE ISSUE/MAILING DATE BELOW. A RESPONSE TRANSMITTED THROUGH THE TRADEMARK ELECTRONIC APPLICATION SYSTEM (TEAS) MUST BE RECEIVED BEFORE MIDNIGHT EASTERN TIME OF THE LAST DAY OF THE RESPONSE PERIOD.

ISSUE/MAILING DATE: 6/16/2017

This Office action is in response to applicant's communication filed on May 23, 2017.

Registration was refused pursuant to Trademark Act Section 2(e)(1), because the applied-for mark merely describes a feature, ingredient, characteristic, purpose, function and/or use of applicant's goods. Additionally, the examining attorney provided an advisory that the mark appears to be generic in connection with the identified goods. In response, the applicant has argued that the mark is suggestive, and in the alternative requests that the Office accept its Section 2(f) affidavit to find that its mark has acquired distinctiveness in view of its continuous use of over five years.

The examining attorney has reviewed the applicant's response, and is persuaded by the claim of acquired distinctiveness, only. However, the application does not include the above-referenced affidavit in support of the Section 2(f) claim. Additionally, a disclaimer of the generic wording "peel" will be required. Accordingly, the following is noted:

SECTION 2(f) BASED ON FIVE YEARS' USE

The application record indicates that applicant has used its mark for a long time; therefore, applicant has the option to amend the application to assert a claim of acquired distinctiveness under Trademark Act Section 2(f). See 15 U.S.C. §1052(f); TMEP §1212.05.

To amend the application to Section 2(f) based on five years' use, applicant should request that the application be amended to assert a claim of acquired distinctiveness under Section 2(f) and submit the following written statement claiming acquired distinctiveness, if accurate:

The mark has become distinctive of the goods and/or services through the applicant's substantially exclusive and continuous use

of the mark in commerce that the U.S. Congress may lawfully regulate for at least the five years immediately before the date of this statement.

TMEP §1212.05(d); see 15 U.S.C. §1052(f); 37 C.F.R. §2.41(a)(2); TMEP §1212.08. This statement must be verified with an affidavit or signed declaration under 37 C.F.R. §2.20. 37 C.F.R. §2.41(a)(2); TMEP §1212.05(d); see 37 C.F.R. §2.193(e)(1).

DISCLAIMER OF GENERIC MATTER - SECTION 2(f)

Applicant is advised that, if the application is amended to seek registration on the Principal Register under Trademark Act Section 2(f) or on the Supplemental Register, applicant will be required to disclaim "peel" because such wording appears to be generic in the context of applicant's goods and/or services. See 15 U.S.C. §1056(a); In re Wella Corp., 565 F.2d 143, 144, 196 USPQ 7, 8 (C.C.P.A. 1977); In re Creative Goldsmiths of Wash., Inc., 229 USPQ 766, 768 (TTAB 1986); TMEP §1213.03(b).

The word "peel" appears in the identification of goods.

The following is the standardized format for a disclaimer:

No claim is made to the exclusive right to use "PEEL" apart from the mark as shown.

TMEP §1213.08(a)(i).

If applicant has questions regarding this Office action, please telephone or e-mail the assigned trademark examining attorney. All relevant e-mail communications will be placed in the official application record; however, an e-mail communication will not be accepted as a response to this Office action and will not extend the deadline for filing a proper response. See 37 C.F.R. §§2.62(c), 2.191; TMEP §§304.01-.02, 709.04-.05. Further, although the trademark examining attorney may provide additional explanation pertaining to the refusal(s) and/or requirement(s) in this Office action, the trademark examining attorney may not provide legal advice or statements about applicant's rights. See TMEP §§705.02, 709.06.

TEAS PLUS OR TEAS REDUCED FEE (TEAS RF) APPLICANTS – TO MAINTAIN LOWER FEE, ADDITIONAL REQUIREMENTS MUST BE MET, INCLUDING SUBMITTING DOCUMENTS ONLINE: Applicants who filed their application online using the lower-fee TEAS Plus or TEAS RF application form must (1) file certain documents online using TEAS, including responses to Office actions (see TMEP §§819.02(b), 820.02(b) for a complete list of these documents); (2) maintain a valid e-mail correspondence address; and (3) agree to receive correspondence from the USPTO by e-mail throughout the prosecution of the application. See 37 C.F.R. §§2.22(b), 2.23(b); TMEP §§819, 820. TEAS Plus or TEAS RF applicants who do not meet these requirements must submit an additional processing fee of \$125 per class of goods and/or services. 37 C.F.R. §§2.6(a)(1)(v), 2.22(c), 2.23(e); TMEP §§819.04, 820.04. However, in certain situations, TEAS Plus or TEAS RF applicants may respond to an Office action by authorizing an examiner's amendment by telephone or e-mail without incurring this additional fee.

/Ronald L. Fairbanks/ Ronald L. Fairbanks Trademark Examining Attorney Law Office 119 (571) 272-9405 ron.fairbanks@uspto.com

TO RESPOND TO THIS LETTER: Go to http://www.uspto.gov/trademarks/teas/response forms.jsp. Please wait 48-72 hours from the issue/mailing date before using the Trademark Electronic Application System (TEAS), to allow for necessary system updates of the application. For technical assistance with online forms, e-mail TEAS@uspto.gov. For questions about the Office action itself, please contact the assigned trademark examining attorney. E-mail communications will not be accepted as responses to Office actions; therefore, do not respond to this Office action by e-mail.

All informal e-mail communications relevant to this application will be placed in the official application record.

WHO MUST SIGN THE RESPONSE: It must be personally signed by an individual applicant or someone with legal authority to bind an applicant (i.e., a corporate officer, a general partner, all joint applicants). If an applicant is represented by an attorney, the attorney must sign the response.

PERIODICALLY CHECK THE STATUS OF THE APPLICATION: To ensure that applicant does not miss crucial deadlines or official notices, check the status of the application every three to four months using the Trademark Status and Document Retrieval (TSDR) system at http://tsdr.uspto.gov/. Please keep a copy of the TSDR status screen. If the status shows no change for more than six months, contact the

Trademark Assistance Center by e-mail at <u>TrademarkAssistanceCenter@uspto.gov</u> or call 1-800-786-9199. For more information on checking status, see http://www.uspto.gov/trademarks/process/status/.

TO UPDATE CORRESPONDENCE/E-MAIL ADDRESS: Use the TEAS form at http://www.uspto.gov/trademarks/teas/correspondence.jsp.

EXHIBIT H

EXHIBIT H

Exh.b.t H

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

Response to Office Action

The table below presents the data as entered.

Imput Kieli)	. Bntered
SERIAL NUMBER	87202675
LAW OFFICE ASSIGNED	LAW OFFICE 119
MARK SECTION	
MARK	https://tmng-al.uspto.gov/resting2/api/img/87202675/large
LITERAL ELEMENT	FERULAC PEEL
STANDARD CHARACTERS	YES
USPTO-GENERATED IMAGE	YES
MARK STATEMENT	The mark consists of standard characters, without claim to any particular font style, size or color.
ADDITIONAL STATEMENTS SECTION	
DISCLAIMER	No claim is made to the exclusive right to use PEEL apart from the mark as shown.
SECTION 2(f) Claim of Acquired Distinctiveness, based on Five or More Years' Use	The mark has become distinctive of the goods/services through the applicant's substantially exclusive and continuous use of the mark in commerce that the U.S. Congress may lawfully regulate for at least the five years immediately before the date of this statement.
SIGNATURE SECTION	
DECLARATION SIGNATURE	/Gabriel Serrano/
SIGNATORY'S NAME	Gabriel Serrano
SIGNATORY'S POSITION	Managing Member
SIGNATORY'S PHONE NUMBER	305-447-1617
DATE SIGNED	06/28/2017
RESPONSE SIGNATURE	/CS/
SIGNATORY'S NAME	Christian Sanchelima, Esq.
SIGNATORY'S POSITION	Attorney of Record
SIGNATORY'S PHONE NUMBER	305-447-1617
DATE SIGNED	06/28/2017
AUTHORIZED SIGNATORY	YES
FILING INFORMATION SECTION	
SUBMIT DATE	Wed Jun 28 12:12:04 EDT 2017
TEAS STAMP	USPTO/ROA-XX.XXX.XX.XX-20 170628121204452422-872026 75-5905cd2ef9fdda46ca3b57 f9ef298e6b58ae32f9e1dc194 e7a32a4bb9232218b-N/A-N/A

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

Response to Office Action

To the Commissioner for Trademarks:

Application serial no. 87202675 FERULAC PEEL(Standard Characters, see https://tmng-al.uspto.gov/resting2/api/img/87202675/large) has been amended as follows:

ADDITIONAL STATEMENTS

Disclaimer

No claim is made to the exclusive right to use PEEL apart from the mark as shown.

SECTION 2(f) Claim of Acquired Distinctiveness, based on Five or More Years' Use

The mark has become distinctive of the goods/services through the applicant's substantially exclusive and continuous use of the mark in commerce that the U.S. Congress may lawfully regulate for at least the five years immediately before the date of this statement.

SIGNATURE(S)

Declaration Signature

DECLARATION: The signatory being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements and the like may jeopardize the validity of the application or submission or any registration resulting therefrom, declares that, if the applicant submitted the application or allegation of use (AOU) unsigned, all statements in the application or AOU and this submission based on the signatory's own knowledge are true, and all statements in the application or AOU and this submission made on information and belief are believed to be true.

STATEMENTS FOR UNSIGNED SECTION 1(a) APPLICATION/AOU: If the applicant filed an unsigned application under 15 U.S.C. §1051(c), the signatory additionally believes that: the applicant is the owner of the mark sought to be registered; the mark is in use in commerce and was in use in commerce as of the filing date of the application or AOU on or in connection with the goods/services/collective membership organization in the application or AOU; the original specimen(s), if applicable, shows the mark in use in commerce as of the filing date of the application or AOU on or in connection with the goods/services/collective membership organization in the application or AOU; for a collective trademark, collective service mark, collective membership mark application, or certification mark application, the applicant is exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark in commerce and was exercising legitimate control over the use of the mark application, the applicant is not engaged in the production or marketing of the goods/services to which the mark is applied, except to advertise or promote recognition of the certification program or of the goods/services that meet the certification standards of the applicant. To the best of the signatory's knowledge and belief, no other persons, except, if applicable, authorized users, members, and/or concurrent users, have the right to use the mark in commerce, either in the identical form or in such near resemblance as to be likely, when used on or in connection

STATEMENTS FOR UNSIGNED SECTION 1(b)/SECTION 44 APPLICATION AND FOR SECTION 66(a)

COLLECTIVE/CERTIFICATION MARK APPLICATION: If the applicant filed an unsigned application under 15 U.S.C. §§ 1051(b), 1126(d), and/or 1126(e), or filed a collective/certification mark application under 15 U.S.C. §1141f(a), the signatory additionally believes that: for a trademark or service mark application, the applicant is entitled to use the mark in commerce on or in connection with the goods/services specified in the application; the applicant has a bona fide intention to use the mark in commerce and had a bona fide intention to use the mark in commerce as of the application filing date; for a collective trademark, collective service mark, collective membership mark, or certification mark application, the applicant has a bona fide intention, and is entitled, to exercise legitimate control over the use of the mark in commerce and had a bona fide intention, and was entitled, to exercise legitimate control over the use of the mark in commerce as of the application filing date; the signatory is properly authorized to execute the declaration on behalf of the applicant; for a certification mark application, the applicant will not engage in the production or marketing of the goods/services to which the mark is applied, except to advertise or promote recognition of the certification program or of the goods/services that meet the certification standards of the applicant. To the best of the signatory's knowledge

and belief, no other persons, except, if applicable, authorized users, members, and/or concurrent users, have the right to use the mark in commerce, either in the identical form or in such near resemblance as to be likely, when used on or in connection with the goods/services/collective membership organization of such other persons, to cause confusion or mistake, or to deceive.

Signature: /Gabriel Serrano/ Date: 06/28/2017

Signatory's Name: Gabriel Serrano Signatory's Position: Managing Member Signatory's Phone Number: 305-447-1617

Response Signature

Signature: /CS/ Date: 06/28/2017

Signatory's Name: Christian Sanchelima, Esq. Signatory's Position: Attorney of Record

Signatory's Phone Number: 305-447-1617

The signatory has confirmed that he/she is an attorney who is a member in good standing of the bar of the highest court of a U.S. state, which includes the District of Columbia, Puerto Rico, and other federal territories and possessions; and he/she is currently the owner's/holder's attorney or an associate thereof; and to the best of his/her knowledge, if prior to his/her appointment another U.S. attorney or a Canadian attorney/agent not currently associated with his/her company/firm previously represented the owner/holder in this matter: (1) the owner/holder has filed or is concurrently filing a signed revocation of or substitute power of attorney with the USPTO; (2) the USPTO has granted the request of the prior representative to withdraw; (3) the owner/holder has filed a power of attorney appointing him/her in this matter; or (4) the owner's/holder's appointed U.S. attorney or Canadian attorney/agent has filed a power of attorney appointing him/her as an associate attorney in this matter.

Serial Number: 87202675

Internet Transmission Date: Wed Jun 28 12:12:04 EDT 2017

TEAS Stamp: USPTO/ROA-XX.XXX.XX.XX-20170628121204452

422-87202675-5905cd2ef9fdda46ca3b57f9ef2 98e6b58ae32f9e1dc194e7a32a4bb9232218b-N/

A-N/A-20170628120907460159

EXHIBIT I

EXHIBIT I

Ferulic acid

From Wikipedia, the free encyclopedia

Ferulic acid is a

hydroxycinnamic acid, a type of organic compound. It is an abundant phenolic phytochemical found in plant cell wall components such as arabinoxylans as covalent side chains. It is related to trans-cinnamic acid. As a component of lignin, ferulic acid is a precursor in the manufacture of other aromatic compounds. The ctymology is from the genus Ferula, referring to the giant fennel (Ferula communis).

Ferulic acid

IUPAC name

(E)-3-(4-hydroxy-3-methoxy-phenyl)prop-2-enoic acid

Other names

2-propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-

ferulic acid

3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid

3-(4-hydroxy-3-methoxyphenyl)acrylic acid

3-methoxy-4-hydroxycinnamic acid

4-hydroxy-3-methoxycinnamic acid

(2E)-3-(4-hydroxy-3-methoxyphenyl)-2-propenoic

acid

Ferulate

Coniferic acid

trans-ferulic acid

(E)-ferulic acid

Identifiers

CAS Number	1135-24-6 (http://www.commonchemistry.org/ChemicalDetail.aspx? ref=1135-24-6) *
3D model (JSmol)	Interactive image (http://chemapps.stolaf.edu/jmol/jmol.php? model=COclcc%28ccclO%29%2FC%3DC%2FC%28% 3DO%29O)
ChEBI	

	e constant	CHEBI:17620 (https://www.ebi.ac.uk/chebi/searchld.do? chebild=17620)
Contents	ChemSpider	393368 (http://www.chemspider.com/Chemical- Structure.393368.html) <
1 Occurrence in nature1.1 In food	DrugBank	DB07767 (https://www.drugbank.ca/drugs/DB07767) *
1.2 In herbal medi1.3 In processed for	cines bods infoCard	100.013.173 (https://echa.europa.cu/substance-information/-/substanceinfo/100.013.173)
2 Metabolism2.1 Biosynthesis2.2 Biodegradation	PubChem CID	445858 (https://pubchem.ncbi.nlm.nih.gov/compound/445858)
 3 Ecology 	InChl	
4 Extraction5 Bio-medical considera	SMILES	The second secon
 6 Other applications 	HONS	Properties
6.1 As a precursor6.2 Mass spectron	toweniklin refrymula	$C_{10}H_{10}O_4$
• 6.3 Bitterness mas		194.18 g/mol
 7 Sec also 	Appearance	Crystalline Powder
■ 8 References	Melting point	168 to 172 °C (334 to 342 °F; 441 to 445 K)
Occurrence in	Solubility in water	0.78 g/L ^[1]
nature	Acidity	4.61[1]
As a building block of	$(\mathfrak{p}K_{\mathbf{a}})$	The second of th
lignocelluloses, such as pectin		Hazards
and lignin, ferulic acid is ubiquitous in the plant kingdom.	NFPA 704	2 1 0
In food	Except when	re otherwise noted, data are given for materials in their standard PC [77 °F], 100 kPa).
Ferulic acid is found in the	1	✓ verify (what is < ?)
seeds of coffee, apple, artichoke, peanut, and orange, as well as in both seeds and		Infobox references

cell walls of commelinid plants (such as rice, wheat, oats, the Chinese water chestnut (*Eleocharis dulcis*) and pineapple). Often in the form of **chlorogenic acid**.

In cereals, ferulic acid is localized in the bran the hard outer layer of grain. In wheat, phenolic compounds are mainly found in the form of insoluble bound ferulic acid and be relevant to resistance to wheat fungal diseases. The highest known concentration of ferulic acid glucoside has been found in flaxsced $(4.1 \pm 0.2 \text{ g/kg})$. It is also found in barley grain. [5]

Asterid eudicot plants can also produce ferulic acid. The tea brewed from the leaves of yacón (*Smallanthus sonchifolius*), a plant traditionally grown in the northern and central Andes, contains quantities of ferulic acid. In legumes, the white bean variety navy bean is the richest source of ferulic acid among the common bean (*Phaseolus vulgaris*) varieties. [6] It is also found in horse grams (*Macrotyloma uniflorum*). [7]

Although there are many sources of ferulic acid in nature, its bioavailability is limited based on the form in which it is present, with free ferulic acid having a poor water solubility hence poor bioavailability. In wheat grain, ferulic acid is found bound to cell wall polysaccharides, which has an effect on its release and absorption in the small intestine.^[8]

In herbal medicines

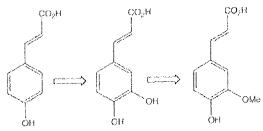
Ferulic acid has been identified in Chinese medicine herbs such as *Angelica sinensis* (female ginseng), *Cimicifuga heracleifolia*^[9] and *Ligusticum chuangxiong*. It is also found in the tea brewed from the European centaury (*Centaurium erythraea*), a plant used as a medical herb in many parts of Europe, ^[10]

In processed foods

Cooked sweetcorn releases increased levels of ferulic acid. [11] As plant sterol esters, this compound is naturally found in rice bran oil, a popular cooking oil in several Asian countries. [12]

Ferulic acid glucoside can be found in commercial breads containing flaxseed.^[13] Rye bread contains ferulic acid dehydrodimers.^[14]

Metabolism



In plants, fertilic acid (right) is derived from phenylalanine, which is converted to

4-hydroxycinnamic acid (left) and then caffeic acid.

Biosynthesis

Biosynthesis of ferulic acid is by the action of the enzyme caffeate *O*-methyltransferase.^[15] It is biosynthesized from caffeic acid.

Ferulic acid, together with dihydroferulic acid, is a component of lignocellulose, serving to crosslink the lignin and polysaecharides, thereby conferring rigidity to the cell walls.^[16]

It is an intermediate in the synthesis of monolignols, i.e., the monomers of lignin, and is also used for the synthesis of lignans.

Biodegradation

Ferulic acid is converted by certain strains of yeast, notably strains used in brewing of wheat beers, such as *Saccharomyces delbrueckii* (*Torulaspora delbrueckii*), to 4-vinyl guaiacol (2-methoxy-4-vinylphenol) which gives beers such as Weissbier and Wit their distinctive "clove" flavour. *Saccharomyces cerevisiae* (dry baker's yeast) and *Pseudomonas fluorescens* are also able to convert trans-ferulic acid into 2-methoxy-4-vinylphenol. ^[17] In *P. fluorescens*, a ferulic acid decarboxylase has been isolated. ^[18]

Ecology

Ferulic acid is one of the possible plant compounds that initiate Agrobacterium tumefaciens to infect plant cells.

Extraction

It can be extracted from wheat bran and maize bran using concentrated alkali. [19]

Bio-medical considerations

Ferulic acid, like many natural phenols, is an antioxidant in vitro in the sense that it is reactive toward free radicals such as reactive oxygen species (ROS). ROS and free radicals are implicated in DNA damage, cancer, and accelerated cell aging. Animal studies and in vitro studies suggest that ferulic acid may have direct antitumor activity against breast cancer^[20] and liver cancer. Ferulic acid may have pro-apoptotic effects in cancer cells, thereby leading to their destruction. Ferulic acid may be effective at preventing cancer induced by exposure to the carcinogenic compounds benzopyrene and 4-nitroquinoline 1-oxide. Note that these are not randomized controlled trials



UV visible spectrum of ferulic acid, with λ_{max} at 321 nm and a shoulder at 278 nm

done with human participants, and therefore, the results of these studies may not be directly applicable to human use.

If added to a topical preparation of ascorbie acid and vitamin E, ferulic acid may reduce oxidative stress and formation of thymine dimers in skin. [24] There is also a small amount of research showing oral supplements of ferulic acid can inhibit melanin production in the process of skin whitening. [25]

Other applications

As a precursor to vanillin

Ferulic acid, being highly abundant, may be useful as a precursor in the manufacturing of vanillin, a synthetic flavoring agent often used in place of natural vanilla extract.^[26] However, biotechnological processes may be the most efficient method to use ferulic acid as a precursor,^[27] and as such, research is still ongoing.

Mass spectrometry

It is used as a matrix for proteins in MALDI mass spectrometry analyses.^[28]

Bitterness masker

Kraft Foods has patented the use of sodium ferulate to mask the bitter aftertaste of the artificial sweetener acesulfame potassium.^[29]

See also

- · Caffeic acid
- · Coumaric acid
- Diferulic acids
- Eugenol
- Isoferulic acid, an isomer of ferulic acid

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- 29. US 5336513 (https://worldwide.espacenet.com/textdoc?DB=EPODOC&IDX=US5336513)

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EXHIBIT I

REQUEST FOR EXTENSION OF PROTECTION

SERIAL NUMBER: 79071102

FILING DATE: 01/26/2009

The table below presents the data as entered.

Input Field	Entered
MARK SECTION	
IMAGE	\\TICRS\EXPORT7\IMAGEOUT7\790\711\79071102\xml1\APP0002.JPG
COLLECTIVE, CERTIFICATE OR GUARANTEE MARK	NO
MARK IN STANDARD CHARACTERS	YES
MARK IN COLOR	NO
THREE DIMENSIONAL MARK	NO
SOUND MARK	NO
TM IMAGE: COLOR	NO
IMAGE FILE NAME	\\TICRS\EXPORT7\IMAGEOUT7\790\711\79071102\xml1\APP0002.JPG
TYPE (IMAGE TYPE)	JPG
TEXTUAL ELEMENTS OF MARK	FERULAC
HOLDER DETAILS	
CLIENT IDENTIFIER	547340
NOTIFICATION LANGUAGE	SPANISH
NAME	SESDERMA, S.L.
ADDRESS	Calle Masamagrell, 3
	Pol. Industrial Rafelbunyol
	E-46138 Valencia
COUNTRY	Spain
ENTITLEMENT ADDRESS	1
ENTITLEMENT COUNTRY	- UNKNOWN
ENTITLEMENT DOMICILED	EM
LEGAL NATURE	SOCIEDAD LIMITADA
LEGAL NATURE: PLACE INCORPORATED	ESPAÑA
CORRESPONDENCE INDICATOR	YES
BASIC GOODS AND SERVICES	
VERSION OF NICE CLASSIFICATION USED	9
NICE CLASSIFICATION	03
GOODS AND SERVICES	Cosmetics.
NICE CLASSIFICATION	05
GOODS AND SERVICES	Pharmaceutical preparations for skin care and treatment.

PARIS PRIORITY DETAILS

Office for Harmonization in the Internal Market (Trade Marks and Designs) (OHIM) PARIS PRIORITY CODE:

PARIS PRIORITY APPLICATION NUMBER 007524606

PARIS PRIORITY APPLICATION DATE 01/15/2009

BASE REGISTRATION DETAILS

007524606 BASE APPLICATION NUMBER

01/15/2009 BASE APPLICATION DATE

REPRESENTATIVE DETAILS

CLIENT IDENTIFIER 547341

Dieguez Garbayo, Pedro NAME

Calle Orense n° 10, 1° Of. 12 **ADDRESS**

E-28020 Madrid

COUNTRY Spain

INTENT TO USE GROUP

United States of America CONTRACTING PARTY CODE

DESIGNATIONS

DESIGNATIONS UNDER THE PROTOCOL United States of America

INTERNATIONAL REGISTRATION DETAILS

1008200 INTERNATIONAL REGISTRATION NUMBER

INTERNATIONAL REGISTRATION DATE OF

01/26/2009 MARK

INTERNATIONAL REGISTRATION EXPIRY DATE 01/26/2019

EFFECTIVE DATE OF MODIFICATION 01/26/2009 NOTIFICATION DATE 08/20/2009

DATE OF RECORDAL IN INTERNATIONAL REGISTER

482428301 IB DOCUMENT ID

Office for Harmonization in the Internal Market (Trade Marks and Designs) (OHIM) OFFICE OF ORIGIN CODE

08/04/2009

79071102 OFFICE REFERENCE

TRANSACTION TYPE VALUES Initial Designation

ORIGINAL LANGUAGE **SPANISH**

INSTRUMENT UNDER WHICH CONTRACTING

PARTY IS DESIGNATED

Protocol

DURATION OF MARK (YEARS)

10

EXHIBIT J

Trademark/Service Mark Application, Principal Register

Serial Number: 86857290 Filing Date: 12/22/2015

The table below presents the data as entered.

Ippni Pizid	Engred	
SERIAL NUMBER	86857290	
MARK INFORMATION		
*MARK	<u>FERULAC</u>	
STANDARD CHARACTERS	YES	
USPTO-GENERATED IMAGE	YES	
LITERAL ELEMENT	FERULAC	
MARK STATEMENT	The mark consists of standard characters, without claim to any particular font, style, size, or color.	
REGISTER	Principal	
APPLICANT INFORMATION		
*OWNER OF MARK	SESDERMA, S.L.	
*STREET	Massamagrell No.3. Pol. Ind. Rafelbuñol	
*CITY	Vlencia	
*COUNTRY	Spain	
*ZIP/POSTAL CODE (Required for U.S. applicants)	46138	
PHONE	305-447-1617	
FAX	305-445-8484	
EMAIL ADDRESS	tm@sanchelima.com	
LEGAL ENTITY INFORMATION		
ТҮРЕ	limited liability company	
STATE/COUNTRY WHERE LEGALLY ORGANIZED	Spain	
GOODS AND/OR SERVICES AND BA	SIS INFORMATION	
INTERNATIONAL CLASS	003	
*identification	Cosmetics; Beauty serums; Facial beauty serum; Non-medicated skin care preparation namely, body and facial mist; Beauty ampoules; Moisturizing creams; Facial creams; Skin care preparations, namely, chemical peels for skin	
FILING BASIS	SECTION 1(a)	
FIRST USE ANYWHERE DATE	At least as early as 08/27/2010	
FIRST USE IN COMMERCE DATE	At least as early as 08/27/2010	

SPECIMEN FILE NAME(S)	\\\TICRS\EXPORT16\IMAGEOUT 16\868\572\86857290\xml1\\\\RFA0003.JPG
	\\TICRS\EXPORT16\IMAGEOUT 16\868\572\86857290\xml1\\\RFA0004.JPG
	\\\TICRS\EXPORT16\IMAGEOUT 16\868\572\86857290\xml1\\\\RFA0005.JPG
and the second s	\\\TICRS\EXPORT16\IMAGEOUT 16\868\572\86857290\xml1\\\\RFA0006.JPG
SPECIMEN DESCRIPTION	Image of the mark as used in commerce as found affixed to the goods.
ATTORNEY INFORMATION	Albaria (Tarangan) and a sama and
NAME	Christian Sanchelima, Esq.
ATTORNEY DOCKET NUMBER	350786.1
FIRM NAME	Sanchelima & Associates, P.A.
STREET	235 SW Le Jeune Road
CITY	Miami
STATE	Florida
COUNTRY	United States
MP/POSTAL CODE	33134
PHONE	305-447-1617
^AX	305-445-8484
EMAIL ADDRESS	tm@sanchelima.com
AUTHORIZED TO COMMUNICATE VIA EMAIL	Yes
OTHER APPOINTED ATTORNEY	Jesus Sanchelima, Esq.
CORRESPONDENCE INFORMATION	
NAME	Christian Sanchelima, Esq.
FIRM NAME	Sanchelima & Associates, P.A.
STREET	235 SW Le Jeune Road
CITY	Miami
STATE	Florida
COUNTRY	United States
ZIP/POSTAL CODE	33134
PHONE	305-447-1617
FAX	305-445-8484
	tm@sanchelima.com;legal@sanchelima.com; chris@sanchelima.com;
EMAIL ADDRESS	jesus@sanchelima.com
AUTHORIZED TO COMMUNICATE VIA EMAIL	Yes
FEE INFORMATION	
APPLICATION FILING OPTION	TEAS RF
NUMBER OF CLASSES	1

FEE PER CLASS	275
*TOTAL FEE DUE	275
*TOTAL FEE PAID	275
SIGNATURE INFORMATION	
ORIGINAL PDF FILE	hw 502405030-150524801 . 151222vp.Signed TM Appl. 13.pdf
CONVERTED PDF FILE(S) (1 page)	\\TICRS\EXPORT16\IMAGEOUT16\868\572\86857290\xm11\RFA0007.JPG
SIGNATORY'S NAME	Gabriel Serrano
SIGNATORY'S POSITION	Managing Member
SIGNATORY'S PHONE NUMBER	305-447-1617

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

Trademark/Service Mark Application, Principal Register

Serial Number: 86857290 Filing Date: 12/22/2015

To the Commissioner for Trademarks:

MARK: FERULAC (Standard Characters, see below)

The literal element of the mark consists of FERULAC.

The mark consists of standard characters, without claim to any particular font, style, size, or color.

The applicant, SESDERMA, S.L., a limited liability company legally organized under the laws of Spain, having an address of

Massamagrell No.3. Pol. Ind. Rafelbuñol

Vlencia 46138

Spain

305-447-1617(phone)

305-445-8484(fax)

tm@sanchelima.com (not authorized)

requests registration of the trademark/service mark identified above in the United States Patent and Trademark Office on the Principal Register established by the Act of July 5, 1946 (15 U.S.C. Section 1051 et seq.), as amended, for the following:

International Class 003: Cosmetics; Beauty serums; Facial beauty serum; Non-medicated skin care preparation namely, body and facial mist; Beauty ampoules; Moisturizing creams; Facial creams; Skin care preparations, namely, chemical peels for skin

In International Class 003, the mark was first used by the applicant or the applicant's related company or licensee or predecessor in interest at least as early as 08/27/2010, and first used in commerce at least as early as 08/27/2010, and is now in use in such commerce. The applicant is submitting one(or more) specimen(s) showing the mark as used in commerce on or in connection with any item in the class of listed goods/services, consisting of a(n) Image of the mark as used in commerce as found affixed to the goods.

Specimen File1

Specimen File2

Specimen File3

Specimen File4

The applicant's current Attorney Information:

Christian Sanchelima, Esq. and Jesus Sanchelima, Esq. of Sanchelima & Associates, P.A. 235 SW Le Jeune Road

Miami, Florida 33134

United States

305-447-1617(phone)

305-445-8484(fax)

tm@sanchelima.com (authorized)

The attorney docket/reference number is 350786.1.

The applicant's current Correspondence Information:

Christian Sanchelima, Esq.

Sanchelima & Associates, P.A.

235 SW Le Jeune Road

Miami, Florida 33134

305-447-1617(phone)

305-445-8484(fax)

tm@sanchelima.com; legal@sanchelima.com; chris@sanchelima.com; jesus@sanchelima.com (authorized)

E-mail Authorization: I authorize the USPTO to send e-mail correspondence concerning the application to the applicant or applicant's attorney at the e-mail address provided above. I understand that a valid e-mail address must be maintained and that the applicant or the applicant's

attorney must file the relevant subsequent application-related submissions via the Trademark Electronic Application System (TEAS). Failure to do so will result in an additional processing fee of \$50 per international class of goods/services.

A fee payment in the amount of \$275 has been submitted with the application, representing payment for 1 class(es).

Declaration

The signatory believes that: if the applicant is filing the application under 15 U.S.C. § 1051(a), the applicant is the owner of the trademark/service mark sought to be registered; the applicant is using the mark in commerce on or in connection with the goods/services in the application; the specimen(s) shows the mark as used on or in connection with the goods/services in the application; and/or if the applicant filed an application under 15 U.S.C. § 1051(b), § 1126(d), and/or § 1126(e), the applicant is entitled to use the mark in commerce; the applicant has a bona fide intention, and is entitled, to use the mark in commerce on or in connection with the goods/services in the application. The signatory believes that to the best of the signatory's knowledge and belief, no other persons, except, if applicable, concurrent users, have the right to use the mark in commerce, either in the identical form or in such near resemblance as to be likely, when used on or in connection with the goods/services of such other persons, to cause confusion or mistake, or to deceive. The signatory being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements and the like may jeopardize the validity of the application or any registration resulting therefrom, declares that all statements made of his/her own knowledge are true and all statements made on information and belief are believed to be true.

Declaration Signature

Signature: Not Provided Date: Not Provided

Signatory's Name: Gabriel Serrano Signatory's Position: Managing Member

RAM Sale Number: 86857290 RAM Accounting Date: 12/23/2015

Serial Number: 86857290

Internet Transmission Date: Tue Dec 22 15:21:51 EST 2015 TEAS Stamp: USPTO/BAS-XX.XXX.XXX.XXX-20151222152151602 618-86857290-5501134127829db2a3fabe5bab2 cfa9ea5def2aab66db4b4646412799caea3e7-CC -16134-20151222150524801991

FERULAC

FERULAC

Liposomal serum Serum liposomado



FACIAL/FACIAL

Photoaging / Fotoenvejecimiento

Ferulic acid liposomal / Phloretin

Ácido ferúlico liposomado/ Floretina

30 ml Θ

1.0 fl. oz

sesderma

FERULACMOISTURIZING MIST



FACIAL

Daily defense spray Resfreshing

0.68 fl oz (20 mL) sesderma

Guarantee seal

FERULAC

Liposomal serum
Serum liposomado
Siero liposomiale
Liposomal serum
Sérum en liposomes
Liposomal serum
Липосомальная
сыворотка

sesderma

FERULAC MOISTURIZING MIST

Moisturizing spray that helps smooth out wrinkles and evens the skin tone. Helps to protect from external aggressions. Suitable for all skin types.

DIRECTIONS:
Spray at a distance of 5-10 cm (2-4 in) directly all over the face. Massage the product until its complete absorption. Apply before your usual cosmetic cream.

FERULAC PEELS BOOSTER SYSTEM



Step 1 FERULAC PEEL CLASSIC Ferulic Acid / Phloretin Acid terosca / Fice clies

Step 2
FERULAC PEEL PLUS
Ferulic acid / Philoretin/Fruit acids / Retinot
Acid teliko / Floratina / Acidos florates / Retinot

Step1 50mic

203 Ft oz

Step 2 66 maQ

2.03 ft oz

medi+derma Guarantee seal FERULAC PEEL
CLASSIC
To a Consider of Period and the Consider of Period and Consider of Period and Consider of Period and Consider of Period and Consider of Consi

FERULAC SYSTEM

FACIAL



Step 1 / FERULAC Resfreshing cream Step 2 / FERULAC Moisturizing cream

step 1 / 1.0 fl. oz (30 ml) step 2 / 1.0 fl. oz (30 ml) sesderma



Declaration

The signatory believes that: if the applicant is filing the application under 15 U.S.C. § 1051(a), the applicant is the owner of the trademark/service mark sought to be registered; the applicant is using the mark in commerce on or in connection with the goods/services in the application; the specimen(s) shows the mark as used on or in connection with the goods/services in the application; and/or if the applicant filed an application under 15 U.S.C. § 1051(b), § 1126(d), and/or § 1126(e), the applicant is entitled to use the mark in commerce; the applicant has a bona fide intention, and is entitled, to use the mark in commerce on or in connection with the goods/services in the application. The signatory believes that to the best of the signatory's knowledge and belief, no other persons, except, if applicable, concurrent users, have the right to use the mark in commerce, either in the identical form or in such near resemblance as to be likely, when used on or in connection with the goods/services of such other persons, to cause confusion or mistake, or to deceive. The signatory being warned that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements and the like may jeopardize the validity of the application or any registration resulting therefrom, declares that all statements made of his/her own knowledge are true and all statements made on information and belief are believed to be true.

Signature Section:

DESTERMASSA 1926 And de Rafelbuñol

Signatory's Phone Number: 305-447-1617

mc - 2.60 Date Signed:

NOTE TO APPLICANT: When filed as part of the electronic form (i.e., scanned and attached as an image file), the signature page must include both the signature information and the boilerplate declaration language. Do not include the entire application, but do ensure that the boilerplate declaration language actually appears; a signature by itself will not be acceptable. If, due to browser limitations, the boilerplate declaration language appears on a previous page when printed, you must "merge" the declaration and signature block onto a single page prior to signing, so that the one complete page can be scanned to create an acceptable image file. It is recommended that you copy-and-paste the entire text form into another document, manipulate the spacing there to move the declaration and signature section to a separate page, and then print this new version of the text form to send to the signatory.

EXHIBIT K

EXHIBIT K

UNITED STATES PATENT AND TRADEMARK OFFICE

SERIAL NO:

79/071102

MARK: FERULAC

79071102

RESPOND TO THIS ACTION:

CORRESPONDENT ADDRESS:

Dieguez Garbayo,Pedro Calle Orense n° 10, 1° Of. 12 E-28020 Madrid SPAIN

http://www.uspto.gov/teas/eTEASpageD.htm

GENERAL TRADEMARK INFORMATION: http://www.uspto.gov/main/trademarks.htm

APPLICANT:

SESDERMA, S.L.

CORRESPONDENT'S REFERENCE/DOCKET NO:

N/A

CORRESPONDENT E-MAIL ADDRESS:

OFFICE ACTION

TO AVOID ABANDONMENT, THE OFFICE MUST RECEIVE A PROPER RESPONSE TO THIS OFFICE ACTION WITHIN 6 MONTHS OF THE ISSUE/MAILING DATE.

ISSUE/MAILING DATE:

INTERNATIONAL REGISTRATION NO. 1008200

This is a **PROVISIONAL FULL REFUSAL** of the trademark and/or service mark in the above-referenced U.S. application. *See* 15 U.S.C. §1141h(c).

WHO IS PERMITTED TO RESPOND TO THIS PROVISIONAL FULL REFUSAL:

Applicant may respond directly to this provisional refusal Office action, or applicant's attorney may respond on applicant's behalf. However, the <u>only</u> attorneys who can practice before the USPTO in trademark matters are as follows:

- (1) Attorneys in good standing with a bar of the highest court of any U.S. state, the District of Columbia, Puerto Rico, and other federal territories and possessions of the United States; and
- (2) Canadian agents/attorneys who represent applicants residing in Canada and who have received reciprocal recognition by the USPTO under 37 C.F.R. §11.14(c).

37 C.F.R. §§11.1, 11.14; TMEP §602.

Foreign attorneys are not permitted to practice before the USPTO, other than properly authorized Canadian attorneys. TMEP §602.06(b). Filing written communications, authorizing an amendment to an application, or submitting legal arguments in response to a requirement or refusal constitutes representation of a party in a trademark matter. A response signed by an unauthorized foreign attorney is considered an incomplete response. *See* TMEP §\$602.03, 712.03.

THE APPLICATION HAS BEEN PROVISIONALLY REFUSED AS FOLLOWS:

The assigned examining attorney has reviewed the trademark application identified above. Applicant must respond to all of the issues discussed below, before the response deadline. 15 U.S.C. §1062(B); 37 C.F.R. §§2.62, 2.65(a); TMEP §§711, 718.03.

SECTION 2(d) REFUSAL – LIKELIHOOD OF CONFUSION As to goods in class 3 only

Registration of the applied-for mark is refused because of a likelihood of confusion with the marks in U.S. Registration Nos. 3185073 and

3497589 as to applicant's goods in class 3 only. Trademark Act Section 2(d), 15 U.S.C. §1052(d); see TMEP §§1207.01 et seq. See the enclosed registrations.

Based on the *du Pont* factors, the likelihood of confusion determination in this case is structured as a two-part analysis. The marks are compared for similarities in their appearance, sound, connotation and commercial impression. TMEP §§1207.01, 1207.01(b). Then the goods and/or services are compared to determine whether they are similar or commercially related or travel in the same trade channels. *See Herbko Int'l, Inc. v. Kappa Books, Inc.*, 308 F.3d 1156, 1164-65, 64 USPQ2d 1375, 1380 (Fed. Cir. 2002); *Han Beauty, Inc. v. Alberto-Culver Co.*, 236 F.3d 1333, 1336, 57 USPQ2d 1557, 1559 (Fed. Cir. 2001); TMEP §§1207.01, 1207.01(a)(vi).

In this case, applicant's mark is FERULAC, for use on

Cosmetics

The registered marks are both CE FERULIC, used on

Facial serum

Both registrations are owned by a single owner.

SIMILARITY OF THE MARKS

In a likelihood of confusion determination, the marks are compared for similarities in their appearance, sound, meaning or connotation and commercial impression. *In re E. I. du Pont de Nemours & Co.*, 476 F.2d 1357, 1361, 177 USPQ 563, 567 (C.C.P.A. 1973); TMEP §1207.01(b). Similarity in any one of these elements may be sufficient to find a likelihood of confusion. *In re White Swan Ltd.*, 8 USPQ2d 1534, 1535 (TTAB 1988); *In re Lamson Oil Co.*, 6 USPQ2d 1041, 1043 (TTAB 1987); *see* TMEP §1207.01(b).

In this case, applicant's mark is similar to the registered mark in meaning, connotation and commercial impression. Applicant's mark comprises the word FERULAC. The registered mark features the word FERULIC. These sound alike and are likely to be considered similar by consumers because of this shared similar word.

Accordingly, applicant's mark is similar to the registered mark. When an applicant's mark is similar to a registered mark, confusion is likely if applicant's goods are similar to the goods on which the registered mark is used.

SIMILARITY OF THE GOODS

The goods of the parties need not be identical or directly competitive to find a likelihood of confusion. See Safety-Kleen Corp. v. Dresser Indus., Inc., 518 F.2d 1399, 1404, 186 USPQ 476, 480 (C.C.P.A. 1975); TMEP §1207.01(a)(i). Rather, they need only be related in some manner, or the conditions surrounding their marketing are such that they would be encountered by the same purchasers under circumstances that would give rise to the mistaken belief that the goods come from a common source. In re Total Quality Group, Inc., 51 USPQ2d 1474, 1476 (TTAB 1999); TMEP §1207.01(a)(i); see, e.g., On-line Careline Inc. v. Am. Online Inc., 229 F.3d 1080, 1086-87, 56 USPQ2d 1471, 1475-76 (Fed. Cir. 2000); In re Martin's Fanous Pastry Shoppe, Inc., 748 F.2d 1565, 1566-68, 223 USPQ 1289, 1290 (Fed. Cir. 1984).

In this case, applicant's "cosmetics" would encompass and include the "facial serums" identified in the identification of goods of the registered marks. Likelihood of confusion is determined on the basis of the goods as they are identified in the application and registration. *Hewlett-Packard Co. v. Packard Press Inc.*, 281 F.3d 1261, 1267-68, 62 USPQ2d 1001, 1004-05 (Fed. Cir. 2002); *In re Shell Oil Co.*, 992 F.2d 1204, 1207 n.4, 26 USPQ2d 1687, 1690 n.4 (Fed. Cir. 1993); TMEP §1207.01(a)(iii).

When the application describes the goods broadly and there are no limitations as to their nature, type, channels of trade or classes of purchasers, then it is presumed that the application encompasses all goods of the type described, that they move in all normal channels of trade, and that they are available to all potential customers. *See In re Melville Corp.*, 18 USPQ2d 1386, 1388 (TTAB 1991) ("With reference to the channels of trade, applicant's argument that its goods are sold only in its own retail stores is not persuasive There is no restriction [in its identification of goods] as to the channels of trade in which the goods are sold."); TMEP §1207.01(a)(iii).

Based on the foregoing, applicant's goods are similar to the goods on which the registered mark is used. Because applicant's mark is similar to the registered mark and applicant's goods are also similar to the goods on which the registered mark is used, applicant's mark is likely to be confused with the registered mark and may not register.

Applicant should also note the following additional refusal.

SECTION 2(e)(1) REFUSAL - MERELY DESCRIPTIVE

Registration is refused because the applied-for mark merely describes an ingredient of applicant's goods, specifically ferulic acid. Trademark Act Section 2(e)(1), 15 U.S.C. \$1052(e)(1); see TMEP \$\$1209.01(b), 1209.03 et seg.

A mark is merely descriptive if it describes an ingredient, quality, characteristic, function, feature, purpose or use of the specified goods. TMEP §1209.01(b); see In re Steelbuilding.com, 415 F.3d 1293, 1297, 75 USPQ2d 1420, 1421 (Fed. Cir. 2005); In re Gyulay, 820 F.2d 1216, 1217-18, 3 USPQ2d 1009, 1010 (Fed. Cir. 1987).

The determination of whether a mark is merely descriptive is considered in relation to the identified goods, not in the abstract. *In re Abcor Dev. Corp.*, 588 F.2d 811, 814, 200 USPQ 215, 218 (C.C.P.A. 1978); TMEP §1209.01(b); *see, e.g., In re Polo Int'l Inc.*, 51 USPQ2d 1061 (TTAB 1999) (finding DOC in DOC-CONTROL would be understood to refer to the "documents" managed by applicant's software, not "doctor" as shown in dictionary definition); *In re Digital Research Inc.*, 4 USPQ2d 1242 (TTAB 1987) (finding CONCURRENT PC-DOS merely descriptive of "computer programs recorded on disk" where relevant trade used the denomination "concurrent" as a descriptor of a particular type of operating system). "Whether consumers could guess what the product is from consideration of the mark alone is not the test." *In re Am. Greetings Corp.*, 226 USPQ 365, 366 (TTAB 1985).

In this case, FERULAC sounds like "ferulie" which is a type of acid. Attached is the definition of "ferulic acid" from the Merriam-Webster online dictionary, which reads in part:

fe-ru-lic acid Function: noun

: a white crystalline acid that is structurally related to vanillin and is obtained especially from plant sources (as aspen bark)

Also attached are:

- (1) The Wikipedia entry for ferulic acid discussing its use in cosmetics and skin care.
- (2) An article abstract from PubMed.com, titled "Ferulic acid stabilizes a solution of vitamins C and E and doubles its photoprotection of skin." By Lin FH, Lin JY, Gupta RD, Tournas JA, Burch JA, Selim MA, Monteiro-Riviere NA, Grichnik JM, Zielinski J, Pinnell SR., which discusses the cosmetic uses of ferulic acid.
- (3) An article abstract from PubMed.com, titled "Ferulic acid: an antioxidant found naturally in plant cell walls and feruloyl esterases involved in its release and their applications," By Mathew S, Abraham, which discusses the use of ferulic acid in skin care.

This evidence shows that ferulic acid could be an ingredient in applicant's goods in both classes 3 and 5. While applicant's mark is spelled FERULAC and the acid is spelled "ferulic," a novel spelling of a merely descriptive word or term is also merely descriptive if purchasers would perceive the different spelling as the equivalent of the descriptive word or term. See In re Hercules Fasteners, Inc., 203 F.2d 753, 97 USPQ 355 (C.C.P.A. 1953) (holding "FASTIE," phonetic spelling of "fast tie," merely descriptive of tube sealing machines); Andrew J. McPartland, Inc. v. Montgomery Ward & Co., 164 F.2d 603, 76 USPQ 97 (C.C.P.A. 1947) (holding "KWIXTART," phonetic spelling of "quick start," merely descriptive of electric storage batteries); In re State Chem. Mfg. Co., 225 USPQ 687 (TTAB 1985) (holding "FOM," phonetic equivalent spelling of "foam," merely descriptive of foam rug shampoo); TMEP §1209.03(j).

Accordingly, the mark FERULAC is merely descriptive of an ingredient in the goods and cannot register based on the current record.

Although the trademark examining attorney has refused registration, applicant may respond to the refusal to register by submitting evidence and arguments in support of registration. If applicant chooses to respond to the refusals to register, then applicant must also respond to the following.

EXPLANATION OF MARK'S SIGNIFICANCE REQUIRED

Applicant must explain whether "FERULAC" has any meaning or significance in the industry in which the goods are manufacture or provided, or if such wording is a "term of art" within applicant's industry. See 37 C.F.R. §2.61(b); TMEP §814.

Failure to respond to this request for information can be grounds for refusing registration. See In re DTI P'ship LLP, 67 USPQ2d 1699, 1701 (TTAB 2003); TMEP §814.

ENGLISH TRANSLATION REQUIRED

Applicant must submit an English translation of all foreign wording in the mark. 37 C.F.R. §2.32(a)(9); see TMEP §809. In the present case, the wording "FERULAC" may require translation.

Applicant should use the following format:

The English translation of FERULAC in the mark is (provide translation here).

If the wording cannot be translated, applicant should indicate so for the record. TMEP §809.02.

IDENTIFICATION OF GOODS - Class 5 only

The identification of goods in class 5 is indefinite and must be clarified. See TMEP §1402.01. Applicant must specify the common commercial or generic name, applicant must describe the product and intended consumer as well as its main purpose and intended uses.

Applicant may adopt the following identification, if accurate:

Class 5

Pharmaceutical preparations for skin care; pharmaceutical preparations for treating skin disorders

Identifications of goods can be amended only to clarify or limit the goods; adding to or broadening the scope of the goods is not permitted. 37 C.F.R. §2.71(a); see TMEP §§1402.06 et seq., 1402.07. Therefore, applicant may not amend the identification to include goods that are not within the scope of the goods set forth in the present identification.

For assistance with identifying and classifying goods and/or services in trademark applications, please see the online searchable *Manual of Acceptable Identifications of Goods and Services* at http://tess2.uspto.gov/netahtml/tidm.html. See TMEP §1402.04.

The international classification of goods and/or services in applications filed under Trademark Act Section 66(a) cannot be changed from the classification given to the goods and/or services by the International Bureau in the corresponding international registration. 37 C.F.R. §2.85(d); TMEP §§1401.03(d), 1904.02(b).

FILING BASIS ADVISORY

For applications originally filed under Trademark Act Section 66(a), the filing basis cannot be changed nor can more than one filing basis be asserted. 37 C.F.R. §§2.34(b)(3), 2.35(a); TMEP §§806.01(e), 1904.01(a).

RESPONSE GUIDELINES

There is no required format or form for responding to an Office action. The Office recommends applicants use the Trademark Electronic Application System (TEAS) to respond to Office actions online at http://www.uspto.gov/teas/index.html. If applicant responds on paper via regular mail, the response should include the title "Response to Office Action" and the following information: (1) the name and law office number of the examining attorney, (2) the serial number and filing date of the application, (3) the date of issuance of this Office action, (4) applicant's name, address, telephone number and e-mail address (if applicable), and (5) the mark. 37 C.F.R. §2.194(b)(1); TMEP §302.03(a).

In the response, applicant should explicitly address each refusal and/or requirement raised in the Office action. If a refusal has issued, applicant may wish to argue against the refusal, i.e., submit arguments and/or evidence as to why the refusal should be withdrawn and why the mark should register. To respond to requirements, applicant should set forth in writing the required changes or statements.

The response must be signed by applicant or someone with legal authority to bind applicant (i.e., a corporate officer of a corporate applicant, the equivalent of an officer for unincorporated organizations or limited liability company applicants, a general partner of a partnership applicant, each applicant for applications with multiple individual applicants). TMEP §\$605.02, 712. The signer must personally sign and date the response or manually enter their electronic signature in the signature block. TMEP §605.02

If applicant has questions about its application or needs assistance in responding to this Office action, please telephone the assigned trademark examining attorney directly at the number below.

If applicant has an amendment that does not require the payment of a fee, submission of a specimen, response to a statutory refusal or a declaration signature, applicant is encouraged to telephone the examining attorney to expedite the processing of the application.

/Fred Carl III/ Law Office 108 571 272 8867 voice 571 273 9108 fax for official communication only RESPOND TO THIS ACTION: Applicant should file a response to this Office action online using the form at http://www.uspto.gov/teas/eTEASpageD.htm, waiting 48-72 hours if applicant received notification of the Office action via e-mail. For technical assistance with the form, please e-mail TEAS@uspto.gov. For questions about the Office action itself, please contact the assigned examining attorney. Do not respond to this Office action by e-mail; the USPTO does not accept e-mailed responses.

If responding by paper mail, please include the following information: the application serial number, the mark, the filing date and the name, title/position, telephone number and e-mail address of the person signing the response. Please use the following address: Commissioner for Trademarks, P.O. Box 1451, Alexandria, VA 22313-1451.

STATUS CHECK: Check the status of the application at least once every six months from the initial filing date using the USPTO Trademark Applications and Registrations Retrieval (TARR) online system at http://tarr.uspto.gov. When conducting an online status check, print and maintain a copy of the complete TARR screen. If the status of your application has not changed for more than six months, please contact the assigned examining attorney.

Print: Aug 28, 2009

76688456

DESIGN MARK

Serial Number

76688456

Status

REGISTERED

Word Mark

C E FERULIC

Standard Character Mark

Yes

Registration Number

3497589

Date Registered

2008/09/09

Type of Mark

TRADEMARK

Register

PRINCIPAL

Mark Drawing Code

(4) STANDARD CHARACTER MARK

Owner

L'Oreal USA Creative, Inc. CORPORATION DELAWARE 575 Fifth Avenue New York NEW YORK 10017

Goods/Services

Class Status -- ACTIVE. IC 003. US 001 004 006 050 051 052. G & S: Facial serum. First Use: 2005/02/15. First Use In Commerce: 2005/02/15.

Prior Registration(s)

3185073

Section 2f Statement

2(F) ENTIRE MARK

Filing Date

2008/04/07

Examining Attorney

ZAK, HENRY S.

Attorney of Record

76688456

Lisa M. Gigliotti

Print: Aug 28, 2009

CE FERULIC

Print: Aug 28, 2009

78678305

DESIGN MARK

Serial Number

78678305

Status

REGISTERED

Word Mark

C E FERULIC

Standard Character Mark

Yes

Registration Number

3185073

Date Registered

2006/12/12

Type of Mark

TRADEMARK

Register

SUPPLEMENTAL

Mark Drawing Code

(4) STANDARD CHARACTER MARK

L'Oreal USA Creative, Inc. CORPORATION DELAWARE 575 Fifth Avenue New York NEW YORK 10017

Goods/Services

Class Status -- ACTIVE. IC 003. US 001 004 006 050 051 052. G & S: Facial serum. First Use: 2005/02/15. First Use In Commerce: 2005/02/15.

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2005/07/26

Amended Register Date

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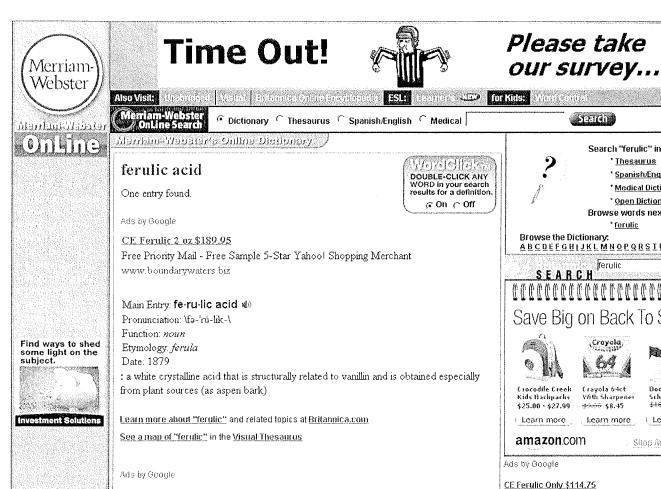
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Ferulic acid

From Wikipedia, the free encyclopedia

Ferulic acid is an organic compound that is an abundant phenolic phytochemical found in plant cell walls. It is a derivative of trans-cinnamic acid. As a component of lignin, ferulic acid is a precursor in the manufacture of other aromatic compounds.

Etymology: from Ferula, giant fennel.

Contents [hide]

- 1 Occurrence in nature
- 2 Bio-medical considerations
- 3 Applications
 - 3.1 As a precursor to vanillin
 - 3.2 Mass spectrometry
- 4 See also
- 5 References

Occurrence in nature

[edit]

Ferulic acid, together with dihydroferulic acid, is a component of lignocellulose, serving to crosslink the lignin and polysaccharides, thereby conferring rigidity to the cell walls.^[1] It is found in seeds of plants such as in rice, wheat, and oats, as well as in coffee, apple, artichoke, peanut, orange and pineapple. It can be extracted from wheat bran and maize bran using concentrated alkali. Biosynthesis of ferulic acid is by the action of the enzyme Omethyl transferase on caffeic acid [1].

It is an intermediate in the synthesis of monolignols, i.e., the monomers of lignin, and is also used for the synthesis of lignans.

Bio-medical considerations

[edit]

Ferulic acid, like many phenois, is an antioxidant in the sense that it is reactive toward free radicals such as reactive oxygen species (ROS). ROS and free radicals are implicated in DNA damage, cancer, accelerated cell aging. Animal studies and in vitro studies suggest that ferulic acid may have direct antitumor activity against breast cancer [2] and liver cancer [3]. Ferulic acid may have pro-apoptotic effects in cancer cells, thereby leading to their destruction [3]. Ferulic acid may be effective at preventing cancer induced by exposure to the carcinogenic compounds benzopyrene [4] and 4-nitroquinoline 1-oxide [5]. Note that these are not randomized controlled trials done with human participants, and therefore, the results of these studies may not be directly applicable to human use.

Ferulic acid

JUPAC

name

Other

2-propenoic acid, 3-(4-hydroxy-3methoxyphenyl)-; ferulic acid; 3-(4hydroxy-3-methoxyphenyl)-2-propenoic acid; 3-(4-hydroxy-3-methoxyphenyl) acrylic acid; 3-methoxy-4hydroxycinnamic acid; 4-hydroxy-3methoxycinnamic acid: (2E1-3-(4hydroxy-3-methoxyphenyl)-2-propenoic acid

Identifiers

CAS

[537-98-4 🚱

194.184

PubChem 445858 rQ

SMILES

(show)

Properties

Molecular C10H10O4

formula

Molar เกลรร

Melting 168-172 °C

point

Except where noted otherwise, data are given for materials in their standard state (at 25 °C, 100 kPa) Infobox references

If added to a topical preparation of ascorbic acid and vitamin E, ferulic acid may reduce oxidative stress and formation of thymine dimers in skin [6]

Annlications

[adit]

Applications

{edit}

As a precursor to vanillin

[edit]

Ferulic acid, being highly abundant, may be useful as a precursor in the manufacturing of vanillin, a synthetic flavoring agent often used in place of natural vanilla extract [7]. However, biotechnological processes may be the most efficient method to use ferulic acid as a precursor [8], and as such, research is still ongoing.

Mass spectrometry

[edit]

It is used as a matrix for proteins in MALDI mass spectroscopy analyses. [9]

See also

[edit]

- Caffeic acid
- Coumaric acid
- Diferulic acids
- Sodium ferulate, a ferulic acid salt

References

[edit]

- 1. A liyama, K.; Lam, T.B.-L.; Stone, B. A. "Covalent Cross-Links in the Cell Walf" Plant Physiology, 1994 volume 104, pp. 315-320.
- 1. a Shahadi, Fereidoon; Naczk, Marian (2004). Phenolics in food and nutraceuticals. Florida, USA: CRC Press LLC. p. 4. ISBN 1-58716-138-9.
- 2. a 🗇 Antiproliferative and apoptotic effects of selective phenolic acids on T47D human breast cancer cells; potential mechanisms of action. Breast Cancer Res. 2004; 6(2: R63-74. Epub 2003 Dec 15; PubMed @ Full text at PMC: 14979919 @
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Categories: Antioxidants | Phenols | Carboxylic acids | Phenylpropanoids

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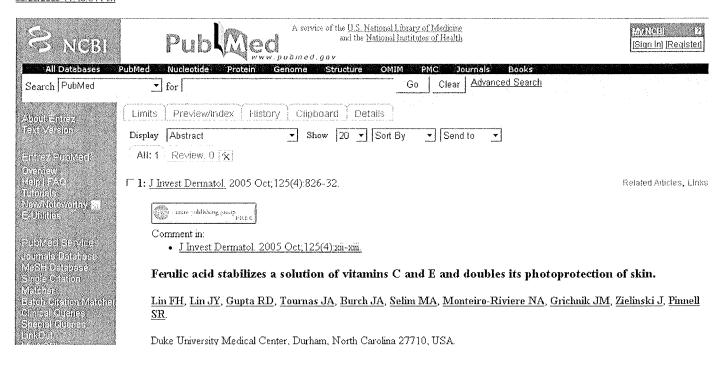
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Duke University Medical Center, Durham, North Carolina 27710, USA.

Ferulic acid is a potent ubiquitous plant antioxidant. Its incorporation into a topical solution of 15%l-ascorbic acid and 1%alphatocopherol improved chemical stability of the vitamins (C+E) and doubled photoprotection to solar-simulated irradiation of skin from 4-fold to approximately 8-fold as measured by both erythema and sunburn cell formation. Inhibition of apoptosis was associated with reduced induction of caspase-3 and caspase-7. This antioxidant formulation efficiently reduced thymine dimer formation. This combination of pure natural low molecular weight antioxidants provides meaningful synergistic protection against oxidative stress in skin and should be useful for protection against photoaging and skin cancer.

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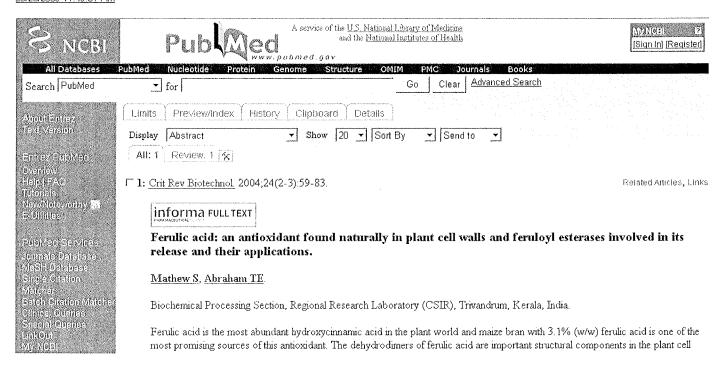
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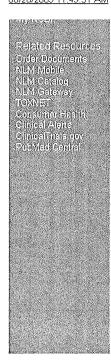
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wall and serve to enhance its rigidity and strength. Feruloyl esterases are a subclass of the carboxylic acid esterases that hydrolyze the ester bond between hydroxycinnamic acids and sugars present in plant cell walls and they have been isolated from a wide range of microorganisms, when grown on complex substrates such as cereal brans, sugar beet pulp, pectin and xylan. These enzymes perform a function similar to alkali in the deesterification of plant cell wall and differ in their specificities towards the methyl esters of cinnamic acids and femilolylated oligosaccharides. They act synergistically with xylanases and pectinases and facilitate the access of hydrolases to the backbone of cell wall polymers. The applications of femilic acid and femilolyl esterase enzymes are many and varied. Femilic acid obtained from agricultural byproducts is a potential precursor for the production of natural vanillin, due to the lower production cost.

Publication Types:

- · Research Support, Non-U.S. Gov't
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EXHIBIT L

EXHIBIT L

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Attachment - 3

Attachment - 4

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UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO) OFFICE ACTION (OFFICIAL LETTER) ABOUT APPLICANT'S TRADEMARK APPLICATION

U.S. APPLICATION SERIAL NO. 86857290

MARK: FERULAC

86857290

CORRESPONDENT ADDRESS:

CHRISTIAN SANCHELIMA,

SANCHELIMA & ASSOCIATES, P.A.

235 SW LE JEUNE ROAD

MIAMI, FL 33134

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APPLICANT: SESDERMA, S.L.

CORRESPONDENT'S REFERENCE/DOCKET NO:

350786.1

CORRESPONDENT E-MAIL ADDRESS:

tm@sanchelima.com

OFFICE ACTION

STRICT DEADLINE TO RESPOND TO THIS LETTER

TO AVOID ABANDONMENT OF APPLICANT'S TRADEMARK APPLICATION, THE USPTO MUST RECEIVE APPLICANT'S COMPLETE RESPONSE TO THIS LETTER WITHIN 6 MONTHS OF THE ISSUE/MAILING DATE BELOW.

ISSUE/MAILING DATE: 3/11/2016

The referenced application has been reviewed by the assigned trademark examining attorney. Applicant must respond timely and completely to the issue(s) below. 15 U.S.C. §1062(b); 37 C.F.R. §\$2.62(a), 2.65(a); TMEP §§711, 718.03.

SUMMARY OF ISSUES:

- Refusal under Trademark Act Section 2(d) Likelihood of Confusion
- Refusal under Trademark Act Section 2(e)(1) Merely Descriptive
- Requirement to Amend the Identification of Goods

SECTION 2(d) REFUSAL – LIKELIHOOD OF CONFUSION

Registration of the applied-for mark is refused because of a likelihood of confusion with the mark in U.S. Registration Nos. 3185073 (C E FERULIC) and 3497589 (C E FERULIC). Trademark Act Section 2(d), 15 U.S.C. §1052(d); see TMEP §§1207.01 et seq. See the enclosed registration.

Trademark Act Section 2(d) bars registration of an applied-for mark that so resembles a registered mark that it is likely a potential consumer would be confused, mistaken, or deceived as to the source of the goods of the applicant and registrant. See 15 U.S.C. §1052(d). A determination of likelihood of confusion under Section 2(d) is made on a case-by case basis and the factors set forth in In re E. I. du Pont de Nemours & Co., 476 F.2d 1357, 1361, 177 USPQ 563, 567 (C.C.P.A. 1973) aid in this determination. Citigroup Inc. v. Capital City Bank Grp., Inc., 637 F.3d 1344, 1349, 98 USPQ2d 1253, 1256 (Fed. Cir. 2011) (citing On-Line Careline, Inc. v. Am. Online, Inc., 229 F.3d 1080, 1085, 56 USPQ2d 1471, 1474 (Fed. Cir. 2000)). Not all the du Pont factors, however, are necessarily relevant or of equal weight, and any one of the factors may control in a given case, depending upon the evidence of record. Citigroup Inc. v. Capital City Bank Grp., Inc., 637 F.3d at 1355, 98 USPQ2d at 1260; In re Majestic Distilling Co., 315 F.3d 1311, 1315, 65 USPQ2d 1201, 1204 (Fed. Cir. 2003); see In re E. I. du Pont de Nemours & Co., 476 F.2d at 1361-62, 177 USPQ at 567.

In this case, the following factors are the most relevant: similarity of the marks, similarity and nature of the goods, and similarity of the trade channels of the goods. See In re Viterra Inc., 671 F.3d 1358, 1361-62, 101 USPQ2d 1905, 1908 (Fed. Cir. 2012); In re Dakin's Miniatures Inc., 59 USPQ2d 1593, 1595-96 (TTAB 1999); TMEP §§1207.01 et seq.

Comparing the Marks.

Marks are compared in their entireties for similarities in appearance, sound, connotation, and commercial impression. Stone Lion Capital Partners, LP v. Lion Capital LLP, 746 F.3d 1317, 1321, 110 USPQ2d 1157, 1160 (Fed. Cir. 2014) (quoting Palm Bay Imps., Inc. v. Veuve Clicquot Ponsardin Maison Fondee En 1772, 396 F. 3d 1369, 1371, 73 USPQ2d 1689, 1691 (Fed. Cir. 2005)); TMEP §1207.01(b)-(b)(v). "Similarity in any one of these elements may be sufficient to find the marks confusingly similar." In re Davia, 110 USPQ2d 1810, 1812 (TTAB 2014) (citing In re 1st USA Realty Prof'ls, Inc., 84 USPQ2d 1581, 1586 (TTAB 2007)); In re White Swan Ltd., 8 USPQ2d 1534, 1535 (TTAB 2007) 1988)); TMEP §1207.01(b).

When comparing marks, the test is not whether the marks can be distinguished in a side-by-side comparison, but rather whether the marks are sufficiently similar in terms of their overall commercial impression that confusion as to the source of the goods and/or services offered under the respective marks is likely to result. Midwestern Pet Foods, Inc. v. Societe des Produits Nestle S.A., 685 F.3d 1046, 1053, 103 USPQ2d 1435, 1440 (Fed. Cir. 2012); In re Davia, 110 USPQ2d 1810, 1813 (TTAB 2014); TMEP §1207.01(b). The proper focus is on the recollection of the average purchaser, who retains a general rather than specific impression of trademarks. United Global Media Grp., Inc. v. Tseng, 112 USPQ2d 1039, 1049, (TTAB 2014); L'Oreal S.A. v. Marcon, 102 USPQ2d 1434, 1438 (TTAB 2012); TMEP §1207.01(b).

There is no correct pronunciation of a mark because it is impossible to predict how the public will pronounce a particular mark. See Embarcadero Techs., Inc. v. RStudio, Inc., 105 USPQ2d 1825, 1835 (TTAB 2013) (quoting In re Viterra Inc., 671 F.3d 1358, 1367, 101 USPQ2d 1905, 1912 (Fed. Cir. 2012); In re The Belgrade Shoe Co., 411 F.2d 1352, 1353, 162 USPQ 227, 227 (C.C.P.A. 1969)); TMEP §1207.01(b)(iv). The marks in question could clearly be pronounced the same; such similarity in sound alone may be sufficient to support a finding that the marks are confusingly similar. In re White Swan Ltd., 8 USPQ2d 1534, 1535 (TTAB 1988); see In re 1st USA Realty Prof'ls, Inc., 84 USPQ2d 1581, 1586 (TTAB 2007); TMEP §1207.01(b)(iv).

Even if it is determined that there are slight differences in the sound of the marks, slight differences in the sound of similar marks will not avoid a likelihood of confusion. In re Energy Telecomm. & Elec. Ass'n, 222 USPQ 350, 351 (TTAB 1983); see In re Viterra Inc., 671 F.3d 1358, 1367, 101 USPQ2d 1905, 1912 (Fed. Cir. 2012).

Additionally, incorporating the entirety of one mark within another does not obviate the similarity between the compared marks, as in the present case, nor does it overcome a likelihood of confusion under Section 2(d). See Wella Corp. v. Cal. Concept Corp., 558 F.2d 1019, 1022, 194 USPQ 419, 422 (C.C.P.A. 1977) (finding CALIFORNIA CONCEPT and surfer design and CONCEPT confusingly similar); Coca-Cola Bottling Co. v. Jos. E. Seagram & Sons, Inc., 526 F.2d 556, 557, 188 USPQ 105, 106 (C.C.P.A. 1975) (finding BENGAL and BENGAL LANCER and design confusingly similar); Hunter Indus., Inc. v. Toro Co., 110 USPQ2D 1651, 1660-61 (TTAB 2014) (finding PRECISION and PRECISION DISTRIBUTION CONTROL confusingly similar); TMEP §1207.01(b)(iii). In the present case, the marks are phonetically identical in part. Additionally the applicant's mark is highly similar in appearance and overall commercial connotation to the mark in U.S. Registration Nos. 3185073 (C E FERULIC) and 3497589 (C E FERULIC). In each case, the additional terms in registrant's mark ("C E") is insufficient to obviate the similarities between applicant's mark and that in the cited registration. Accordingly, the applicant's mark, "FERULAC" is likely to be confused with each of the registered marks, "C E FERULIC".

The goods of the parties need not be identical or even competitive to find a likelihood of confusion. See On-line Careline Inc. v. Am. Online Inc., 229 F.3d 1080, 1086, 56 USPQ2d 1471, 1475 (Fed. Cir. 2000); Recot, Inc. v. Becton, 214 F.3d 1322, 1329, 54 USPQ2d 1894, 1898 (Fed. Cir. 2000) ("[E] ven if the goods in question are different from, and thus not related to, one another in kind, the same goods can be related in the mind of the consuming public as to the origin of the goods."); TMEP §1207.01(a)(i).

The respective goods need only be "related in some manner and/or if the circumstances surrounding their marketing [be] such that they could give rise to the mistaken belief that [the goods] emanate from the same source." Coach Servs., Inc. v. Triumph Learning LLC, 668 F.3d 1356, 1369, 101 USPQ2d 1713, 1722 (Fed. Cir. 2012) (quoting 7-Eleven Inc. v. Wechsler, 83 USPQ2d 1715, 1724 (TTAB 2007)); TMEP §1207.01(a)(i).

With respect to applicant's and registrant's goods, the question of likelihood of confusion is determined based on the description of the goods stated in the application and registration at issue, not on extrinsic evidence of actual use. See Stone Lion Capital Partners, LP v. Lion Capital LLP, 746 F.3d 1317, 1323, 110 USPQ2d 1157, 1162 (Fed. Cir. 2014) (quoting Octocom Sys. Inc. v. Hous. Computers Servs. Inc., 918 F.2d 937, 942, 16 USPQ2d 1783, 1787 (Fed. Cir. 1990)).

Absent restrictions in an application and/or registration, the identified goods are "presumed to travel in the same channels of trade to the same class of purchasers." *In re Viterra Inc.*, 671 F.3d 1358, 1362, 101 USPQ2d 1905, 1908 (Fed. Cir. 2012) (quoting *Hewlett-Packard Co. v. Packard Press, Inc.*, 281 F.3d 1261, 1268, 62 USPQ2d 1001, 1005 (Fed. Cir. 2002)). Additionally, unrestricted and broad identifications are presumed to encompass all goods of the type described. *See In re Jump Designs, LLC*, 80 USPQ2d 1370, 1374 (TTAB 2006) (citing *In re Elbaum*, 211 USPQ 639, 640 (TTAB 1981)); *In re Linkvest S.A.*, 24 USPQ2d 1716, 1716 (TTAB 1992).

In this case, the identification set forth in the application and registrations has no restrictions as to nature, type, channels of trade, or classes of purchasers. Therefore, it is presumed that these goods travel in all normal channels of trade, and are available to the same class of purchasers. Further, the application uses broad wording to describe the goods and this wording is presumed to encompass all goods of the type described, including those in registrant's more narrow identification.

Additionally, the attached Internet evidence consists of excerpts from aveda.com, clinique.com, and lancome-usa.com. http://www.aveda.com/products/search/esearch.tmpl?search=cosmetics and http://www.lancome-usa.com/supercat/index.tmpl?CATEGORY ID=CAT5352; http://www.lancome-usa.com/supercat/index.tmpl?CATEGORY ID=CAT5352; http://www.lancome-usa.com/makeup/makeup.default.sc.html (each, showing use of the same mark on or in connection with cosmetics and skin care products). This evidence establishes that the same entity commonly manufactures, produces, and provides the relevant goods and markets the goods under the same mark, the relevant goods are sold or provided through the same trade channels and used by the same classes of consumers in the same fields of use, and the goods are similar or complementary in terms of purpose or function. Therefore, applicant's and registrant's goods are considered related for likelihood of confusion purposes. See, e.g., In re Davey Prods. Pty Ltd., 92 USPQ2d 1198, 1202-04 (TTAB 2009); In re Toshiba Med. Sys. Corp., 91 USPQ2d 1266, 1268-69, 1271-72 (TTAB 2009).

Evidence obtained from the Internet may be used to support a determination under Section 2(d) that goods and/or services are related. See, e.g., In re G.B.I. Tile & Stone, Inc., 92 USPQ2d 1366, 1371 (TTAB 2009); In re Paper Doll Promotions, Inc., 84 USPQ2d 1660, 1668 (TTAB 2007). The Internet has become integral to daily life in the United States, with Census Bureau data showing approximately three-quarters of American households used the Internet in 2013 to engage in personal communications, to obtain news, information, and entertainment, and to do banking and shopping. See In re Nieves & Nieves LLC, 113 USPQ2d 1639, 1642 (TTAB 2015) (taking judicial notice of the following two official government publications: (1) Thom File & Camille Ryan, U.S. Census Bureau, Am. Cmty. Survey Reports ACS-28, Computer & Internet Use in the United States: 2013 (2014), available at http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-28.pdf, and (2) The Nat'l Telecomms. & Info. Admin. & Econ. & Statistics Admin., Exploring the Digital Nation: America's Emerging Online Experience (2013), available at http://www.ntia.doc.gov/files/ntia/publications/exploring the digital nation - americas emerging online experience.pdf). Thus, the widespread use of the Internet in the United States suggests that Internet evidence may be probative of public perception in trademark examination.

Accordingly, the applicant's proposed mark, "FERULAC", is refused for likelihood of confusion under Trademark Act Section 2(d).

NOTICE OF PRIOR PENDING APPLICATION

The filing date of pending U.S. Application Serial No. 86852803 precedes applicant's filing date. See attached referenced application. If the mark in the referenced application registers, applicant's mark may be refused registration under Trademark Act Section 2(d) because of a likelihood of confusion between the two marks. See 15 U.S.C. §1052(d); 37 C.F.R. §2.83; TMEP §\$1208 et seq. Therefore, upon receipt of applicant's response to this Office action, action on this application may be suspended pending final disposition of the earlier-filed referenced application.

In response to this Office action, applicant may present arguments in support of registration by addressing the issue of the potential conflict between applicant's mark and the mark in the referenced application. Applicant's election not to submit arguments at this time in no way limits applicant's right to address this issue later if a refusal under Section 2(d) issues.

Upon receipt of applicant's response resolving the following requirements, action on this application will be suspended pending the disposition of Application Serial No. 86852803. 37 C.F.R. §2.83(c); TMEP §§716.02(c), 1208.02(c).

Applicant should note the following additional ground for refusal.

SECTION 2(e)(1) REFUSAL - MERELY DESCRIPTIVE

Registration is refused because the applied-for mark, "FERULAC", merely describes a feature, ingredient, characteristic, purpose, and/or function of applicant's goods. Trademark Act Section 2(e)(1), 15 U.S.C. §1052(e)(1); see TMEP §§1209.01(b), 1209.03 et seq.

A mark is merely descriptive if it describes an ingredient, quality, characteristic, function, feature, purpose, or use of an applicant's goods. TMEP §1209.01(b); see, e.g., In re TriVita, Inc., 783 F.3d 872, 874, 114 USPQ2d 1574, 1575 (Fed. Cir. 2015) (quoting In re Oppedahl & Larson LLP, 373 F.3d 1171, 1173, 71 USPQ2d 1370, 1371 (Fed. Cir. 2004)); In re Steelbuilding.com, 415 F.3d 1293, 1297, 75 USPQ2d 1420, 1421 (Fed. Cir. 2005) (citing Estate of P.D. Beckwith, Inc. v. Comm'r of Patents, 252 U.S. 538, 543 (1920)).

The determination of whether a mark is merely descriptive is made in relation to an applicant's goods, not in the abstract. *DuoProSS Meditech Corp. v. Inviro Med. Devices, Ltd.*, 695 F.3d 1247, 1254, 103 USPQ2d 1753, 1757 (Fed. Cir. 2012); *In re The Chamber of Commerce of the U.S.*, 675 F.3d 1297, 1300, 102 USPQ2d 1217, 1219 (Fed. Cir. 2012); TMEP §1209.01(b); *see, e.g., In re Polo Int'l Inc.*, 51 USPQ2d 1061, 1062-63 (TTAB 1999) (finding DOC in DOC-CONTROL would refer to the "documents" managed by applicant's software rather than the term "doctor" shown in a dictionary definition); *In re Digital Research Inc.*, 4 USPQ2d 1242, 1243-44 (TTAB 1987) (finding CONCURRENT PC-DOS and CONCURRENT DOS merely descriptive of "computer programs recorded on disk" where the relevant trade used the denomination "concurrent" as a descriptor of a particular type of operating system).

"Whether consumers could guess what the product [or service] is from consideration of the mark alone is not the test." *In re Am. Greetings Corp.*, 226 USPQ 365, 366 (TTAB 1985).

"A mark may be merely descriptive even if it does not describe the 'full scope and extent' of the applicant's goods or services." *In re Oppedahl & Larson LLP*, 373 F.3d 1171, 1173, 71 USPQ2d 1370, 1371 (Fed. Cir. 2004) (citing *In re Dial-A-Mattress Operating Corp.*, 240 F.3d 1341, 1346, 57 USPQ2d 1807, 1812 (Fed. Cir. 2001)); TMEP §1209.01(b). It is enough if a mark describes only one significant function, attribute, or property. *In re The Chamber of Commerce of the U.S.*, 675 F.3d 1297, 1300, 102 USPQ2d 1217, 1219 (Fed. Cir. 2012); TMEP §1209.01(b); *see In re Oppedahl & Larson LLP*, 373 F.3d at 1173, 71 USPQ2d at 1371.

Further, a novel spelling or an intentional misspelling that is the phonetic equivalent of a merely descriptive word or term is also merely descriptive if purchasers would perceive the different spelling as the equivalent of the descriptive word or term. See In re Hercules Fasteners, Inc., 203 F.2d 753, 97 USPQ 355 (C.C.P.A. 1953) (holding "FASTIE," phonetic spelling of "fast tie," merely descriptive of tube sealing machines); Andrew J. McPartland, Inc. v. Montgomery Ward & Co., 164 F.2d 603, 76 USPQ 97 (C.C.P.A. 1947) (holding "KWIXTART," phonetic spelling of "quick start," merely descriptive of electric storage batteries); In re Carlson, 91 USPQ2d 1198 (TTAB 2009) (holding "URBANHOUZING" phonetic spelling of "urban" and "housing," merely descriptive of real estate services); In re State Chem. Mfg. Co., 225 USPQ 687 (TTAB 1985) (holding "FOM," phonetic spelling of "foam," merely descriptive of foam rug shampoo); TMEP §1209.03(j).

Terms that describe the function or purpose of a product may be merely descriptive. TMEP §1209.03(p); see, e.g., In re Hunter Fan Co., 78 USPQ2d 1474, 1477 (TTAB 2006) (holding ERGONOMIC merely descriptive of ceiling fans); In re Wallyball, Inc., 222 USPQ 87, 89 (TTAB 1984) (holding WALLYBALL merely descriptive of sports clothing and game equipment); In re Orleans Wines, Ltd., 196 USPQ 516, 517 (TTAB 1977) (holding BREADSPRED merely descriptive of jams and jellies). In this case, the applicant has applied to register the mark FERULAC for "Cosmetics; Beauty serums; Facial beauty serum; Non-medicated skin care preparation namely, body and facial mist; Beauty ampoules; Moisturizing creams; Facial creams; Skin care preparations, namely, chemical peels for skin" in International Class 3.

The attached Internet evidence and links show that the wording "FERULIC" means "Pertaining to, or derived from, asafetida (Ferula asafoetida); as, ferulic acid." See, Mondofacto Medical Dictionary, search of "mandelic," http://www.mondofacto.com/facts/dictionary?ferulic.
Additionally, when added to a topical preparation of ascorbic acid and vitamin E, ferulic acid may be therapeutic in skincare applications. See, Wikipedia.com, search of "ferulic acid", https://en.wikipedia.org/wiki/Ferulic_acid.

Indeed, the attached screenshots from applicant's own website shows that applicant offers cosmetics and skin care products containing ferulic acid. Thus, the wording "FERULAC", which is phonetically equivalent to "ferulic" merely describes a feature, function or purpose of applicant's goods. See, http://www.sesdermausa.com/us_en/ferulac-serum-30-ml.html.

Material obtained from the Internet is generally accepted as competent evidence. See In re Nieves & Nieves LLC, 113 USPQ2d 1639, 1644-47 (TTAB 2015) (accepting Internet evidence to show false suggestion of a connection and that a name identified a particular living individual whose written consent to register was required); In re Jonathan Drew Inc., 97 USPQ2d 1640, 1641-42 (TTAB 2011) (accepting Internet evidence to show geographic location was well-known for particular goods); In re Davey Prods. Pty Ltd., 92 USPQ2d 1198, 1202-03 (TTAB 2009) (accepting Internet evidence to show relatedness of goods in a likelihood of confusion determination); In re Leonhardt, 109 USPQ2d 2091, 2098 (TTAB 2008) (accepting Internet evidence to show descriptiveness); In re Rodale Inc., 80 USPQ2d 1696, 1700 (TTAB 2006) (accepting Internet evidence to show genericness); In re Joint-Stock Co. "Baik", 80 USPQ2d 1305, 1308-09 (TTAB 2006) (accepting Internet evidence to show geographic significance); In re Gregory, 70 USPQ2d 1792, 1793, 1795 (TTAB 2004) (accepting Internet evidence to show surname significance); TBMP §1208.03; TMEP §710.01(b).

The Internet has become integral to daily life in the United States, with Census Bureau data showing approximately three-quarters of American households used the Internet in 2013 to engage in personal communications, to obtain news, information, and entertainment, and to do banking and shopping. See In re Nieves & Nieves LLC, 113 USPQ2d at 1642 (taking judicial notice of the following two official government publications: (1) Thom File & Camille Ryan, U.S. Census Bureau, Am. Cmty. Survey Reports ACS-28, Computer & Internet Use in the United States: 2013 (2014), available at http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-28.pdf, and (2) The Nat'l Telecomms. & Info. Admin. & Econ. & Statistics Admin., Exploring the Digital Nation: America's Emerging Online Experience (2013), available at http://www.ntia.doc.gov/files/ntia/publications/exploring the digital nation - americas emerging online experience.pdf). Thus, the widespread use of the Internet in the United States suggests that Internet evidence may be probative of public perception in trademark examination.

Two major reasons for not protecting descriptive marks are (1) to prevent the owner of a descriptive mark from inhibiting competition in the marketplace and (2) to avoid the possibility of costly infringement suits brought by the trademark or service mark owner. *In re Abcor Dev. Corp.*, 588 F.2d 811, 813, 200 USPQ 215, 217 (C.C.P.A. 1978); TMEP §1209. Businesses and competitors should be free to use descriptive language when describing their own goods and/or services to the public in advertising and marketing materials. *See In re Styleclick.com Inc.*, 58 USPQ2d 1523, 1527 (TTAB 2001).

For the foregoing reasons, the proposed mark, "FERULAC", is refused because it is merely descriptive of the applicant's goods under Trademark Act Section 2(e)(1).

SECTION 2(f) ACQUIRED DISTINCTIVENESS

If applicant believes that its mark has acquired distinctiveness, that is, that it has become a distinctive source-indicator for the goods, applicant may seek registration on the Principal Register under Trademark Act Section 2(f). See 15 U.S.C. §1052(f). The USPTO will decide each case on its own merits.

The following factors are generally considered when determining whether a proposed mark has acquired distinctiveness based on extrinsic evidence: (1) length and exclusivity of use of the mark in the United States by applicant; (2) the type, expense, and amount of advertising of the mark in the United States; and (3) applicant's efforts in the United States to associate the mark with the source of the goods, such as unsolicited media coverage and consumer studies. See In re Steelbuilding.com, 415 F.3d 1293, 1300, 75 USPQ2d 1420, 1424 (Fed. Cir. 2005); Bd. of Trs. of Univ. of Ala. v. Pitts, Jr., 107 USPQ2d 2001, 2016 (TTAB 2013). A showing of acquired distinctiveness need not consider all of these factors, and no single factor is determinative. In re Steelbuilding.com, 415 F.3d at 1300, 75 USPQ2d at 1424; see TMEP §§1212.06 et seq.

Evidence of acquired distinctiveness may include specific dollar sales under the mark, advertising figures, samples of advertising, consumer or dealer statements of recognition of the mark as a source identifier, affidavits, and any other evidence that establishes the distinctiveness of the mark as an indicator of source. See 37 C.F.R. §2.41(a)(3); In re Ideal Indus., Inc., 508 F.2d 1336, 1339-40, 184 USPQ 487, 489-90 (C.C.P.A. 1975); In re Instant Transactions Corp. of Am., 201 USPQ 957, 958-59 (TTAB 1979); TMEP §§1212.06 et seq.

The burden of proving that a mark has acquired distinctiveness is on the applicant. Yamaha Int'l Corp. v. Yoshino Gakki Co., 840 F.2d 1572, 6 USPQ2d 1001, 1004 (Fed. Cir. 1988); In re Meyer & Wenthe, Inc., 267 F.2d 945, 122 USPQ 372 (C.C.P.A. 1959); TMEP §1212.01. An applicant must establish that the purchasing public has come to view the proposed mark as an indicator of origin.

Allegations of sales and advertising expenditures do not per se establish that a term has acquired significance as a mark. An applicant must also provide the actual advertising material so that the examining attorney can determine how the term is used, the commercial impression created by such use, and the significance the term would have to prospective purchasers. TMEP §1212.06(b); see In re Boston Beer Co., 198 F.3d 1370, 53 USPQ2d 1056 (Fed. Cir. 1999); In re Packaging Specialists, Inc., 221 USPQ 917, 920 (TTAB 1984).

The ultimate test in determining acquisition of distinctiveness under Trademark Act Section 2(f) is not applicant's efforts, but applicant's success in educating the public to associate the claimed mark with a single source. TMEP §1212.06(b); see In re Packaging Specialists, 221 USPQ at 920; In re Redken Labs., Inc., 170 USPQ 526 (TTAB 1971).

Although applicant's mark has been refused registration, applicant may respond to the refusals by submitting evidence and arguments in support of registration.

If applicant responds to the refusals, applicant must also respond to the requirement set forth below.

IDENTIFICATION OF GOODS

The wording "Beauty ampoules" in the identification of goods is indefinite and must be clarified because applicant must specify the Class 3 contents. See TMEP §1402.01.

Additionally, the use of the applied-for mark on goods that do not in fact contain ferulic acid is or will be deceptive. See TMEP §1203.02-.02(b). To avoid a deceptiveness refusal, applicant must amend the identification to indicate that the goods possess this relevant feature or characteristic. See TMEP §\$1203.02(e)(ii), (f)(i), 1402.05 et seq. Merely amending the identification to exclude goods with the named feature or characteristic will not avoid a deceptiveness refusal. TMEP §1203.02(f)(i).

Applicant may adopt the following identification (suggested wording appears in bold text), if accurate:

International Class 3

Cosmetics; Facial creams; Moisturizing creams; Beauty creams; Beauty gel; Skin moisturizing gel; Beauty serum; Facial beauty serum; Facial scrubs; Body scrub; Beauty ampoules sold filled with {specify Class 3 goods, e.g., facial cream}; Skin care preparations, namely, chemical peels for skin; all of the foregoing containing ferulic acid.

An applicant may only amend an identification to clarify or limit the goods, but not to add to or broaden the scope of the goods. 37 C.F.R. §2.71(a); see TMEP §§1402.06 et seq., 1402.07.

For assistance with identifying and classifying goods and services in trademark applications, please see the USPTO's online searchable *U.S. Acceptable Identification of Goods and Services Manual* at http://tess2.uspto.gov/netahunl/tidm.html. See TMEP §1402.04.

RESPONSE GUIDELINES

To expedite prosecution of the application, applicant is encouraged to file its response to this Office action online via the Trademark Electronic Application System (TEAS), which is available at http://www.uspto.gov/trademarks/teas/index.jsp. If applicant has technical questions about the TEAS response to Office action form, applicant can review the electronic filing tips available online at http://www.uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to TEAS@uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to https://www.uspto.gov/trademarks/teas/e filing tips.jsp and e-mail technical questions to https://www.uspto.gov/tr

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Print: Mar 11, 2016

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Serial Number

76688456

Status

SECTION 8 & 15-ACCEPTED AND ACKNOWLEDGED

Word Mark

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Standard Character Mark

Yes

Registration Number

3497589

Date Registered

2008/09/09

Type of Mark

TRADEMARK

Register

PRINCIPAL

Mark Drawing Code

(4) STANDARD CHARACTER MARK

Owner

L'Oreal USA Creative, Inc. CORPORATION DELAWARE 575 Fifth Avenue New York NEW YORK 10017

Goods/Services

Class Status -- ACTIVE. IC 003. US 001 004 006 050 051 052. G & S: Facial serum. First Use: 2005/02/15. First Use In Commerce: 2005/02/15.

Prior Registration(s)

3185073

Section 2f Statement

2(F) ENTIRE MARK

Filing Date

2008/04/07

Examining Attorney

ZAK, HENRY S.

Attorney of Record

Print: Mar 11, 2016

76688456

Lisa M. Gigliotti

CE FERULIC

Print: Mar 11, 2016

78678305

DESIGN MARK

Serial Number

78678305

Status

SECTION 8-ACCEPTED

Word Mark

C E FERULIC

Standard Character Mark

Yes

Registration Number

3185073

Date Registered

2006/12/12

Type of Mark

TRADEMARK

Register

SUPPLEMENTAL

Mark Drawing Code

(4) STANDARD CHARACTER MARK

Owner

L'Oreal USA Creative, Inc. CORPORATION DELAWARE 575 Fifth Avenue New York NEW YORK 10017

Goods/Services

Class Status -- ACTIVE. IC 003. US 001 004 006 050 051 052. G & S: Facial serum. First Use: 2005/02/15. First Use In Commerce: 2005/02/15.

Filing Date

2005/07/26

Amended Register Date

2006/09/22

Examining Attorney

AMOS, TĀNYA

Attorney of Record

Lisa M. Gigliotti

C E FERULIC

Print: Mar 11, 2016 86852803

DESIGN MARK

Serial Number

86852803

Status

NEW APPLICATION - RECORD INITIALIZED NOT ASSIGNED TO EXAMINER

Word Mark

FERULIC + RETINOL WRINKLE RECOVERY PEEL

Standard Character Mark

Yes

Type of Mark

TRADEMARK

Register

PRINCIPAL

Mark Drawing Code

(4) STANDARD CHARACTER MARK

Owner

Dennis F. Gross INDIVIDUAL UNITED STATES 444 Madison Avenue, Suite 802 New York NEW YORK 10022

Goods/Services

Class Status -- ACTIVE. IC 003. US 001 004 006 050 051 052. G & S: Non-medicated skin care preparation; skin care preparations, namely, skin peels. First Use: 2015/11/28. First Use In Commerce: 2015/11/30.

Filing Date

2015/12/17

Examining Attorney

UNKNOWN

Attorney of Record

Christine M. Baker

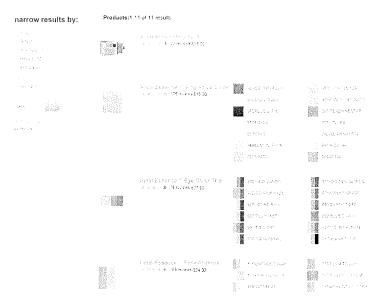
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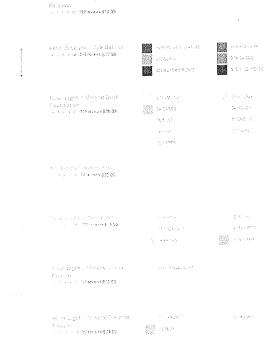
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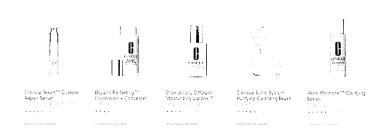
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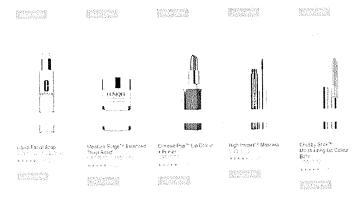
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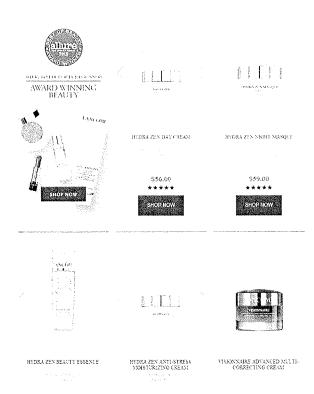
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From Wikipedia, the free encyclopedia

Ferulto acid is a hydroxycinnamic acid, a type of organic compound. It is an abundant phonotic phytochemical found in plant cell wall components such as arranmoxylans as covalent side chains. It is related to transisting and. As a component of lignin, feruic acid is a procursor in the manufacture of other aromatic compounds. The etymology is from the genus Farily, inferring to the grant ferring (Furnia communis)

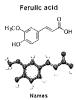
- 1. Occurrence in radice
 - 1.1 In food
 - 1,2 In herbal medicines
 - 1.3 In processed foods
- 2 Metaboism
 - 2.1 Biosynthosis 2.2 Biodegradation
- 3 Ecology
- 4 Extraction
- 5. 8io medical considerations
- 6 Other applications
 - 6.1 As a precursor to vandin
 - 6.2 Mass spectrometry
 - 8.3. Batemess masker
- 7 See also
- 8 References
- 9 Notes

Occurrence in nature [600]

As a building block of lighticelluloses, such as peclin⁽²⁾ and lightin, fertilic acid is ubiquitous in the plant kingdom.

Ferulic acid is found in the seeds of college, apple, arbithose, person, and orange, as well as in both seeds and cell walls of commeland plants (such as rice, wheat, eats, the Chinese water chestnut (Exerchans dules) and pineapple). Often in the form of chlorogenic acid.

In descript, ferroic acid is localized in the brain the hard outer layer of grain. In wheel, phonetic compounds are mainly found in the form of insoluble bound ferroic acid and be relevant to resistance to wheat fungal diseases. The highest known concentration of feruic acid glucoside has been found in flax seed (4.1 ± 0.2)



(E)-3-(4-hydroxy-3-methoxy-phenyl)prop-2enok acid

Other names

2-properioic acid, 3-(4-hydroxy-3-

metnoxyphenyi)-

ferulic acid
3-(4-hydroxy-2-methoxyphenyt)-2-propendic

acid 3-(4-hydroxy-3-methoxyphenyl)acrylic acid

3-methoxy-4-hydroxycinnam:c acid

4-hydroxy-3-methoxycinnamic acid (2E)-3-(4-hydroxy-3-methoxyphetiyl)-2-

propencic acid Ferulaté

Coniferic acid

trans-ferulic acid (E)-ferulic acid

dentifiers

1136-24 Se²⁴ CAS Number SHE81 17629 ₹

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g/kg).[4] it is also found in barley grain.[5]

Asterid Euderal plants can also produce foruld edid. The real browed from the feaves of yearth (Smakenthus sonethilolius), a plant freddonally grown in the Northern and Central Andes, contains quantities of ferulic acid. In legimes, the white bean variety navy bean is the richest source of ferulic acid among the common bean (Prospectus vulgaris) varieties $\mathbb R$ It is also found in herse grains (Macrotyloma uniforum) $\mathbb N$

Although there are many sources of ferulic acid in nature, its becave-subject is limited based on the furn in which it is present, with free ferulic acid having a poor water solubility hence poor bioevailability. In wheat grain, ferulic acid is found bound to cell wall polysecchanides, which has an effect on its release and absorption in the small intestine.13

In herbal medicines [edil]

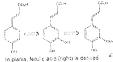
Ferulic acid has been identified in Chinese medicine herbs such as Angelica sinensis (female ginseng). Convolling a heracleifosia et al. Ligasticum chiesegasong. It is also found in the tea brewed from the European centaury (Cantaurum erythraea), a plant used as a medical herb in many parts of Europe. (Cantaurum erythraea)

In processed foods [edil]

Cooked sweet corn releases increased levels of ferulic acid, (**) As plant sterol esters, this compound is naturally found in rice bran oil, a popular cooking oil in several Asian countries.[18]

Foruse and glandside can be found in commercial broads contesting fluxwood PR Rye broad contains feruse and dehydredimens [11]

Metabolism (9dil)



from phenylalanine which is converted 4-hydroxycimatric acid (left) and then while converted to caffely acid

Biosynthesis [edit]

Biosynthosis of forulic acid is by the action of the enzyme carbate Q-methyltransferase $^{\rm HI}$ it is biosynthosized from caffee acid

Fertilic acid, together with dihydroferulic acid, is a component of lignocollulose, serving to crosslank the lignin and polysecchandes, thereby conferring rigidity to the ceil walls (1

It is an intermediate in the synthesis of monologicals. Fell the monomers of liquid, and is also used for the synthesis of liquids.

Blodegradation (edd)

Feruic acid is converted by certain strains of yeast, notably strains used in brewing of wheat beers, such as Swocharomyces detorects. (Torulespors_deibrueckii), to 4 vinyl godiacol (2-methoxy-4-vanylphonol) which gives boors such as Weissbor and Vit inelf distinctive "clove" flavour. Spechstonypos coravicine (dry baker's yeast) and Pseudomonos fluorescens are also able to convert trans-ferulic acid into 2-methoxy-4-vinylphenol (*) to P. fluorescens, a ferulic acid discarboxylase has been isolated (

Ecology 1034

Feruitic acid is one of the possible plant compounds that initiate Agrebactation tomospecies to inject plant cells by a cells.

Extraction [east]

It can be extracted from wheat bran and maize bran using concentrated alkah $^{11\xi}$

In Old Indiana social social substitution for the social s SMILES

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Properties Chemical formula CigHisOs 194 18 g/mcl

Crystalline Powder Appearance 168 to 172 °C (334 to 342 ° Melang point F. 444 (C 445 K)

Soldowly in visitor 0.78 g/L³ 3 46 1 Acidity (pK₄)

HEPA 704



Except where otherwise noted, data are g for materials in their standard state (at 25 [77 °F] 100 kPa)

Intobox references

✓ midy (what is ** ?)

Bio-medical considerations [eds]

Fertilic acid, like many natural phenois, is an association vidro in the sense that it is reactive toward free radicals such as reactive oxygen species (ROS), ROS and free naticals are implicated in DNA demage, cancer, and accelerated cell aging. Animal studies and in vitro studies suggest that fertilic acid may have direct antitumor activity against broad cancer. and live cancer is fertilic acid may have pro-apoptote effects in cancer cells, thereby leading to their destruction. Effectilic acid may be effective at preventing cancer induced by exposure to the carcinogenic compounds benzopyrened and 4-nitroquincline. I could effect the effective activity in human participents, and therefore, the results of those sutness may not be directly applicable to human use.

If added to a topical preparation of ascerbic acid and warrier E, feruic acid may reduce exidative sitess and formation of mymine dimers in sense. There is also a small amount of research showing oral supplements of feruic acid can inhibit metanin production in the process of sket whitening. 18

EPV visible speatrum of ferute ⁽²⁾ acid, with lambda max at 321 and a streutder at 278 nm

Other applications 1960

As a precursor to vanillin [east

Fernitr, acid, being highly abundant, may be useful as a procursor in the manufacturing of varior, a synthetic reverting agent often used in place of natural vanida extract [2] However, biolectinological processes may be the most efficient method to use fernitr, acid as a procursor [3] and as such, research is sult engoing

Mass spectrometry [edd]

It is used as a matre for problems in UALOI maps spectromatry analyses. F

Bitterness masker [ndd]

Rrelt Fords has palented the use of sodium formate to mask the billion afredaste of the embedd swentenor are sulfame petassium PC

See also [edit]

- · Caffele and
- · Counanc acid
- · Diferration acids
- Euganot

References [edit]

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Types of hydroxycinnamic acids Precursor Cannamir aced Monohydroxycinnanic acids (Coumaric acids) p-Coumaric acid - o-Coumaric acid - m-Coumaric acid Olhydroxyclinnamic acids - Caffer axia (3.4-d hydroxyclinnamic acid) - Umbellic acids (2.4-d mydroxyclinnamic acid) - 2.3-Olhydroxyclinnamic acid - 2.5-Olhydroxyclinnamic acid - 3.5-Olyydroxyclinnamic acid - 3.5-Olyy Aglycones Trihydroxyolinnamic acids 3.4 (-Tapyyasyepersona) in d +3.4 (s Fahydrasyanisyans and O-methylated forms | Ferulic acid - 5-4 prioxylocals (a. d - Sougari - acid) esters of subrengancians (3-callenylquini adia) - Opptionicropeaic adia (4-0-callenylquinic adia) - Necellioregancians (5-0-Callenylquinic adia) - quínic adia - Opnione (1,5-dicallenylquinic adia) - 3 1 dicallenylquinic adia - Opnione (1,5-dicallenylquinic adia) - 3 1 dicallenylquinic adia) - 3 1 dicallen glycoside-likes caffeic acid with cyclitots esters of Davity first acid (3-O caffroylshikimic acid) shikimic acid $\textbf{Glycosides} = \text{Forms an a glucoside} + \rho\text{-}\text{Countains and glucoside} + 1\text{-}\text{Sinapovl-Siglucose}$ Esters Tartaric acid esters - Caftam, acid - Cannonic acid (dicaffeoynamaric acid) - Courant acid - Fentaric acid - Graps reaction product (caftaric acid conjugated with glutathione) Other asters with caffeld acid Californiais, acid - Emyl caffeate - Methyl california acid phonolinyl aster (CAPE) - Rosmannia acid (easter with 3.4-outrydroxyphonylladisc acid) Caffeoyl phenylethanoid Chinastoside - Carcadonoside A. B., Cland B. - Chinastoside A., B. and G. - Cistanoside A. B., C. D., E. F., Clan H. - Conandroside - Mycchoside - Pautificiale - Plantalmoside A. - Plantalmoside A. - Plantalmoside B. - Verbascoside (Isove bascoside, 2*Acetylverbascoside) Dimers - Difercito acids (OiFA): 5.5-Disercito acid, 3.0-4-Disercito acid, 3.5-Difercitio aci Oligomeric terms Trimers - Tutorosc acros: 5-5-8-0-4" Toferber and Tetramers | Tetraterolic acids Conjugates with Coerzyne A (CoA) Connamoyl-CoA - Communayl-CoA

Categories: Phenol antioxidants - O-Methylated hydroxychmamic acids - Bitter-masking compounds

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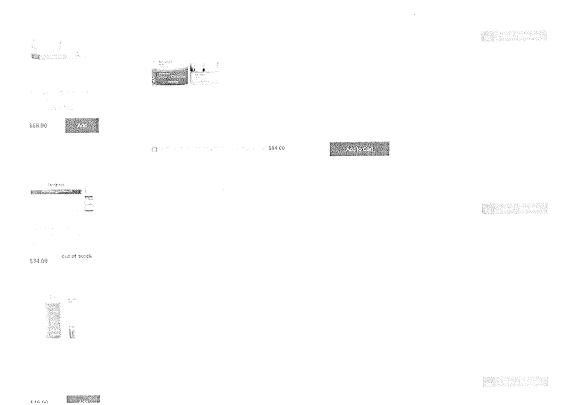


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To:

SESDERMA, S.L. (tm@sanchelima.com)

Subject:

U.S. TRADEMARK APPLICATION NO. 86857290 - FERULAC - 350786.1

Sent:

3/11/2016 1:20:55 PM

Sent As:

ECOM108@USPTO.GOV

Attachments:

UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO)

IMPORTANT NOTICE REGARDING YOUR U.S. TRADEMARK APPLICATION

USPTO OFFICE ACTION (OFFICIAL LETTER) HAS ISSUED ON 3/11/2016 FOR U.S. APPLICATION SERIAL NO. 86857290

Please follow the instructions below:

(1) TO READ THE LETTER: Click on this link or go to http://tsdr.uspto.gov, enter the U.S. application serial number, and click on "Documents."

The Office action may not be immediately viewable, to allow for necessary system updates of the application, but will be available within 24 hours of this e-mail notification.

- (2) TIMELY RESPONSE IS REQUIRED: Please carefully review the Office action to determine (1) how to respond, and (2) the applicable response time period. Your response deadline will be calculated from 3/11/2016 (or sooner if specified in the Office action). For information regarding response time periods, see http://www.uspto.gov/trademarks/process/status/responsetime.jsp.
- **Do NOT hit "Reply" to this e-mail notification, or otherwise e-mail your response** because the USPTO does NOT accept e-mails as responses to Office actions. Instead, the USPTO recommends that you respond online using the Trademark Electronic Application System (TEAS) response form located at http://www.uspto.gov/trademarks/teas/response forms.jsp.
- (3) QUESTIONS: For questions about the contents of the Office action itself, please contact the assigned trademark examining attorney. For *technical* assistance in accessing or viewing the Office action in the Trademark Status and Document Retrieval (TSDR) system, please e-mail TSDR@uspto.gov.

WARNING

Failure to file the required response by the applicable response deadline will result in the ABANDONMENT of your application. For more information regarding abandonment, see http://www.uspto.gov/trademarks/basics/abandon.jsp.

PRIVATE COMPANY SOLICITATIONS REGARDING YOUR APPLICATION: Private companies not associated with the USPTO are using information provided in trademark applications to mail or e-mail trademark-related solicitations. These companies often use names that closely resemble the USPTO and their solicitations may look like an official government document. Many solicitations require that you pay

"fees."

Please carefully review all correspondence you receive regarding this application to make sure that you are responding to an official document from the USPTO rather than a private company solicitation. All official USPTO correspondence will be mailed only from the "United States Patent and Trademark Office" in Alexandria, VA; or sent by e-mail from the domain "@uspto.gov." For more information on how to handle private company solicitations, see http://www.uspto.gov/trademarks/solicitation_warnings.jsp.

EXHIBIT M

EXHIBIT M



NOTICE OF ABANDONMENT MAILING DATE: Oct 11, 2016

The trademark application identified below was abandoned in full because a response to the Office Action mailed on Mar 11, 2016 was not received within the 6-month response period.

If the delay in filing a response was unintentional, you may file a petition to revive the application with a fee. If the abandonment of this application was due to USPTO error, you may file a request for reinstatement. Please note that a petition to revive or request for reinstatement **must be** received within two months from the mailing date of this notice.

For additional information, go to http://www.uspto.gov/teas/petinfo.htm. If you are unable to get the information you need from the website, call the Trademark Assistance Center at 1-800-786-9199.

SERIAL NUMBER:

86857290

MARK:

FERULAC

OWNER:

SESDERMA, S.L.

Side - 2
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EXHIBIT N

UNITED STATES PATENT AND TRADEMARK OFFICE

SERIAL NO:

79/071102

MARK: FERULAC

79071102

CORRESPONDENT ADDRESS:

Dieguez Garbayo,Pedro Calle Orense n° 10, 1° Of. 12 E-28020 Madrid SPAIN RESPOND TO THIS ACTION: http://www.uspto.gov/teas/eTEASpageD.htm

GENERAL TRADEMARK INFORMATION: http://www.uspto.gov/main/trademarks.htm

APPLICANT:

SESDERMA, S.L.

CORRESPONDENT'S REFERENCE/DOCKET NO:

N/A

CORRESPONDENT E-MAIL ADDRESS:

FINAL ACTION

TO AVOID ABANDONMENT, THE OFFICE MUST RECEIVE A PROPER RESPONSE TO THIS OFFICE ACTION WITHIN 6 MONTHS OF THE ISSUE/MAILING DATE.

ISSUE/MAILING DATE:

THIS IS A FINAL ACTION.

INTERNATIONAL REGISTRATION NO. 1008200

This is in response to applicant's correspondence of February 10, 2010 regarding the trademark application identified above. In office action number 1, the examining attorney:

- (1) Refused registration under Trademark Act Section 2(d), 15 U.S.C. §1052(d) as to the goods in class 3 only,
- (2) Refused registration under Trademark Act Section 2(e)(1), 15 U.S.C. §1052(e)(1),
- (3) Required applicant to explain any significance of the trademark in the industry,
- (4) Required applicant to provide a translation of the mark, if appropriate, and
- (5) Required applicant to amend the identification of the goods in class 5.

In its response:

- (1) Applicant provided arguments against the refusal under Trademark Act Section 2(d), 15 U.S.C. §1052(d). The examining attorney has carefully considered applicant's arguments but is not convinced that confusion is not likely between applicant's mark and the registered mark as to applicant's goods in class 3. Accordingly, this refusal is continued and made FINAL as to applicant's goods in class 3.
- (2) Applicant provided arguments against the refusal under Trademark Act Section 2(e)(1), 15 U.S.C. §1052(e)(1). The examining attorney has carefully considered applicant's arguments but is not convinced that applicant's mark is not merely descriptive of the goods. Accordingly, this refusal is continued and made FINAL.
- (3) Applicant indicated that the mark has no significance in the industry. Accordingly, this requirement is no longer outstanding.
- (4) Applicant indicated that the mark cannot be translated. Accordingly, this requirement is no longer outstanding.
- (5) Applicant amended the identification of goods in class 5. Accordingly, this requirement is no longer outstanding.

The following refusals are continued and made FINAL.

FINAL SECTION 2(d) REFUSAL LIKELIHOOD OF CONFUSION – Class 3 only

Registration of the applied-for mark is refused because of a likelihood of confusion with the marks in U.S. Registration Nos. 3185073 and 3497589 as to the goods identified in class 3. Trademark Act Section 2(d), 15 U.S.C. §1052(d); see TMEP §\$1207.01 et seq. See the registration

information provided in office action number 1.

Based on the *du Pont* factors, the likelihood of confusion determination in this case is structured as a two-part analysis. The marks are compared for similarities in their appearance, sound, connotation and commercial impression. TMEP §§1207.01, 1207.01(b). Then the goods are compared to determine whether they are similar or commercially related or travel in the same trade channels. *See Herbko Int'l, Inc. v. Kappa Books, Inc.*, 308 F.3d 1156, 1164-65, 64 USPQ2d 1375, 1380 (Fed. Cir. 2002); *Han Beauty, Inc. v. Alberto-Culver Co.*, 236 F.3d 1333, 1336, 57 USPQ2d 1557, 1559 (Fed. Cir. 2001); TMEP §§1207.01, 1207.01(a)(vi).

In this case, applicant's mark is FERULAC, for use on

Cosmetics, namely, anti-wrinkle cream; age spot reducing cream

The registered marks are both C E FERULIC, used on

facial serum

SIMILARITY OF THE MARKS

In a likelihood of confusion determination, the marks are compared for similarities in their appearance, sound, meaning or connotation and commercial impression. *In re E. I. du Pont de Nemours & Co.*, 476 F.2d 1357, 1361, 177 USPQ 563, 567 (C.C.P.A. 1973); TMEP §1207.01(b). Similarity in any one of these elements may be sufficient to find a likelihood of confusion. *In re White Swan Ltd.*, 8 USPQ2d 1534, 1535 (TTAB 1988); *In re Lamson Oil Co.*, 6 USPQ2d 1041, 1043 (TTAB 1987); *see* TMEP §1207.01(b).

In this case, applicant's mark is similar to the registered mark in sound, meaning, connotation and commercial impression. Applicant's mark comprised the word FERULAC. The registered mark is C E FERULIC. Both marks prominently feature a word comprised of the letters FERUL(vowel)C. Consumers will see these shared elements and recall these shared elements. If they notice the elements C E found in the registered mark they will not believe that these indicate a different product, but merely that they identify another product from the same brand line.

In fact, the attached evidence includes pages from Amazon.com showing the brand STRIVECTIN used on face creams and serum with the suffixes –SD and –HS as STRIVECTIN-SD and STRIVECTIN-HS and STRIVECTIN alone, all indicating products coming from a single source. The additional –HS and –SD initials merely identify different product types from the STRIVECTIN line of skin products. Consumers know that brands do this and would believe that the C E in the registered mark indicates one product in a line of FERULIC (or possibly FERULAC) products.

Applicant has indicated that the marks are not similar primarily because of the –AC ending of its mark as opposed to the –IC ending in the registered mark. Applicant has discussed at length that these differences make the marks different in their entirety. The examining attorney has considered the marks in their entireties and while the marks are not completely identical (not entirely similar or completely similar), they are similar overall and when comparing them while considering the whole of each mark, they convey the same commercial impression because of the overall similarities in their look, spelling, appearance, meaning and sound. Applicant's arguments that consumers will see and understand the differences between the mark require greater attention to detail than can be expected of consumers.

For these reasons, applicant's mark is similar to the registered mark. When an applicant's mark is similar to a registered mark, confusion is likely if applicant's goods are similar to the goods on which the registered mark is used.

SIMILARITY OF THE GOODS

The goods of the parties need not be identical or directly competitive to find a likelihood of confusion. See Safety-Kleen Corp. v. Dresser Indus., Inc., 518 F.2d 1399, 1404, 186 USPQ 476, 480 (C.C.P.A. 1975); TMEP §1207.01(a)(i). Rather, they need only be related in some manner, or the conditions surrounding their marketing are such that they would be encountered by the same purchasers under circumstances that would give rise to the mistaken belief that the goods come from a common source. In re Total Quality Group, Inc., 51 USPQ2d 1474, 1476 (TTAB 1999); TMEP §1207.01(a)(i); see, e.g., On-line Careline Inc. v. Am. Online Inc., 229 F.3d 1080, 1086-87, 56 USPQ2d 1471, 1475-76 (Fed. Cir. 2000); In re Martin's Famous Pastry Shoppe, Inc., 748 F.2d 1565, 1566-68, 223 USPQ 1289, 1290 (Fed. Cir. 1984).

In this case, applicant has amended its identification of goods to read "anti-wrinkle cream; age spot reducing cream." Applicant has argued that because there is not specific purpose for the "facial serum" sold under the registered mark, the goods are not similar. However, this is not supported by either the law or the facts in this case.

First, likelihood of confusion is determined on the basis of the goods as they are identified in the application and registration. *Hewlett-Packard Co. v. Packard Press Inc.*, 281 F.3d 1261, 1267-68, 62 USPQ2d 1001, 1004-05 (Fed. Cir. 2002); *In re Shell Oil Co.*, 992 F.2d 1204, 1207 n.4, 26 USPQ2d 1687, 1690 n.4 (Fed. Cir. 1993); TMEP §1207.01(a)(iii). Here, the registered mark is used on "facial serum" of all types. If the

registered mark were limited to use on "facial serum for babies" or "facial serum for the elimination of infant dermatitis" these goods might not be similar to a cream for reducing wrinkles or age spots, because the use of each might be vastly different. However, in this case, the registered mark may be used on facial serum for wrinkle reduction or age spot reduction. The registration has no limitations on the goods. For this reason, the registered mark may be used on goods addressing the same need as applicant's goods address.

Additionally, facial sera are typically used for the treatment of wrinkles or age spots. The attached evidence discloses:

- (1) A page from the internet website of Drugstore.com showing the a product called "Cellex-C Advanced-C Serum" described as a "serum" that is used for reducing age spots and wrinkles,
- (2) A page from the internet website of Amazon.com showing the brand "Palmer's Age Spot Serum" on a product described as a "serum" that is used on age spots,
- (3) Pages from the internet website of Amazon.com showing the brand STRIVECTIN used on:
 - a. A wrinkle serum sold under the brand "Strivectin-HS Hydro-Thermal Deep Wrinkle Serum" and
 - b. A cream product sold under the brand "StriVectin-SD Eye Cream," for use on wrinkles.

The evidence shows that "serum" is used for reducing wrinkles and age spots, just as applicant's "cream" is used for reducing wrinkles and age spots. It also shows that one brand will be used on both a serum product and a cream product. This shows that applicant's goods, as identified, are similar to the goods on which the registered mark is used.

For these reasons, applicant's goods are similar to and are likely to be competitive with the goods on which the registered mark is used. Because applicant's mark is similar to the registered mark and applicant's goods are also similar to the goods on which the registered mark is used, applicant's mark is likely to be confused with the registered mark and may not register.

Applicant must also note the following.

FINAL SECTION 2(e)(1) REFUSAL MERELY DESCRIPTIVE

Registration is refused because the applied-for mark merely describes an ingredient of applicant's goods. Trademark Act Section 2(e)(1), 15 U.S.C. §1052(e)(1); see TMEP §\$1209.01(b), 1209.03 et seq.

A mark is merely descriptive if it describes an ingredient, quality, characteristic, function, feature, purpose or use of the specified goods. TMEP §1209.01(b); see In re Steelbuilding.com, 415 F.3d 1293, 1297, 75 USPQ2d 1420, 1421 (Fed. Cir. 2005); In re Gyulay, 820 F.2d 1216, 1217-18, 3 USPQ2d 1009, 1010 (Fed. Cir. 1987).

The determination of whether a mark is merely descriptive is considered in relation to the identified goods, not in the abstract. *In re Abcor Dev. Corp.*, 588 F.2d 811, 814, 200 USPQ 215, 218 (C.C.P.A. 1978); TMEP §1209.01(b); *see, e.g., In re Polo Int'l Inc.*, 51 USPQ2d 1061 (TTAB 1999) (finding DOC in DOC-CONTROL would be understood to refer to the "documents" managed by applicant's software, not "doctor" as shown in dictionary definition); *In re Digital Research Inc.*, 4 USPQ2d 1242 (TTAB 1987) (finding CONCURRENT PC-DOS merely descriptive of "computer programs recorded on disk" where relevant trade used the denomination "concurrent" as a descriptor of a particular type of operating system). "Whether consumers could guess what the product is from consideration of the mark alone is not the test." *In re Am. Greetings Corp.*, 226 USPQ 365, 366 (TTAB 1985).

Applicant has identified its goods as:

Cosmetics, namely, anti-wrinkle cream; age spot reducing cream

Pharmaceutical preparations for skin care; pharmaceutical preparations for treating skin disorder

In this case, ferulic acid is a common ingredient in products for treating the skin and cosmetics used for anti-aging purposes. The attached evidence discloses:

- (1) An article found online at LASplash.com, which reads in part:
 - Finally, the most successful antioxidant skin care requires acknowledgement of the critical role of Ferulic Acid. It was discovered to be a performance enhancing antioxidant at the Duke University Medical Center. These amazing conclusions are discussed in peer reviewed medical journals with unprecedented scientific data.
- (2) Information from BulkActives.com regarding the 99% pure ferulic acid sold online, part of which reads:

 Ferulic acid is commonly used in the DIY C+E Ferulic serum (commonly known as skinceuticals). The powder provides broad spectrum sun damage and antioxidant protection. It is also used for to skin lightening and brightening formulas
- (3) An article found online at TruthInAging.com, which reads in part:

 A 2004 Italian study concluded that ferulic acid is a more powerful antioxidant than alpha-tocopherol (vitamin E), beta-carotene, and

ascorbic acid (vitamic C). Meanwhile, Duke University researchers blended it with vitamin C and E and proclaimed it a "potent ubiquitous plant anti-oxidant". In fact, it was discovered to act synergistically with other antioxidants and, in this case, rendered the vitamins C and E more powerful. The Duke Study found it particularly good for preventing sun damage, and studies elsewhere have demonstrated that exposure to ultraviolet light actually increases the antioxidant power of ferulic acid.

According to these sources, the prevailing opinion is that ferulic acid is an important active ingredient in products for the purposes of wrinkle reduction and age spot reduction. Consumers who are seeking products for this purpose are likely to know this and will be looking for labels that identify this ingredient. Consumers will see FERULAC and think that the mark identifies the ingredient ferulic acid. A term that describes an ingredient of the goods is merely descriptive. TMEP §1209.01(b); see In re Keebler Co., 479 F.2d 1405, 178 USPQ 155 (C.C.P.A. 1973) (holding RICH 'N CHIPS merely descriptive of chocolate chip cookies); In re Andes Candies Inc., 478 F.2d 1264, 178 USPQ 156 (C.C.P.A. 1973) (holding CREME DE MENTHE merely descriptive of candy); In re Entenmann's, Inc., 15 USPQ2d 1750 (TTAB 1990) (holding OATNUT merely descriptive of bread containing oats and hazelnuts), aff'd per curiam, 928 F.2d 411 (Fed. Cir. 1991); Flowers Indus., Inc. v. Interstate Brands Corp., 5 USPQ 2d 1580 (TTAB 1987) (holding HONEY WHEAT merely descriptive of bread containing honey and wheat); In re Int'l Salt Co., 171 USPQ 832 (TTAB 1971) (holding CHUNKY CHEESE merely descriptive of cheese flavored salad dressing).

While applicant's mark is spelled FERULAC and the acid is spelled "ferulic," a novel spelling of a merely descriptive word or term is also merely descriptive if purchasers would perceive the different spelling as the equivalent of the descriptive word or term. See In re Hercules Fasteners, Inc., 203 F.2d 753, 97 USPQ 355 (C.C.P.A. 1953) (holding "FASTIE," phonetic spelling of "fast tie," merely descriptive of tube sealing machines); Andrew J. McPartland, Inc. v. Montgomery Ward & Co., 164 F.2d 603, 76 USPQ 97 (C.C.P.A. 1947) (holding "KWIXTART," phonetic spelling of "quick start," merely descriptive of electric storage batteries); In re State Chem. Mfg. Co., 225 USPQ 687 (TTAB 1985) (holding "FOM," phonetic equivalent spelling of "foam," merely descriptive of foam rug shampoo); TMEP §1209.03(j).

In this case, applicant has argued that its mark is like BOTOX which contains "botulinie," or like NATUPEEL, which contains the word "peel," or like other trademarks that have part of a descriptive word in them. However, applicant's mark does not merely have part of a descriptive word in it. Applicant's mark is the word "ferulic" with a single letter changed. With both applicant's 2(d) arguments and with its arguments regarding descriptiveness, applicant is expecting consumers to engage in analysis of the trademark that is too specific than can reasonably be expected. The proposed mark FERULAC looks similar to and would sound exactly like "ferulic" to a consumer exercising the normal standard of care when purchasing products for wrinkle reduction or age spot reduction.

For these reasons, the wording FERULAC is merely descriptive of the goods and cannot register based on the current record.

The foregoing refusals are continued and made FINAL.

RESPONSE GUIDELINES – FINAL REFUSALS

If applicant does not respond within six months of the date of issuance of this final Office action, the application will be abandoned. 15 U.S.C. §1062(b); 37 C.F.R. §2.65(a). Applicant may respond to this final Office action by:

- (1) Submitting a response that fully satisfies all outstanding requirements, if feasible; and/or
- (2) Filing an appeal to the Trademark Trial and Appeal Board, with an appeal fee of \$100 per class.

37 C.F.R. §§2.6(a)(18), 2.64(a); TBMP ch. 1200; TMEP §714.04.

In certain rare circumstances, a petition to the Director may be filed pursuant to 37 C.F.R. §2.63(b)(2) to review a final Office action that is limited to procedural issues. 37 C.F.R. §2.64(a); TMEP §714.04; see 37 C.F.R. §2.146(b); TBMP §1201.05; TMEP §1704 (explaining petitionable matters). The petition fee is \$100. 37 C.F.R. §2.6(a)(15).

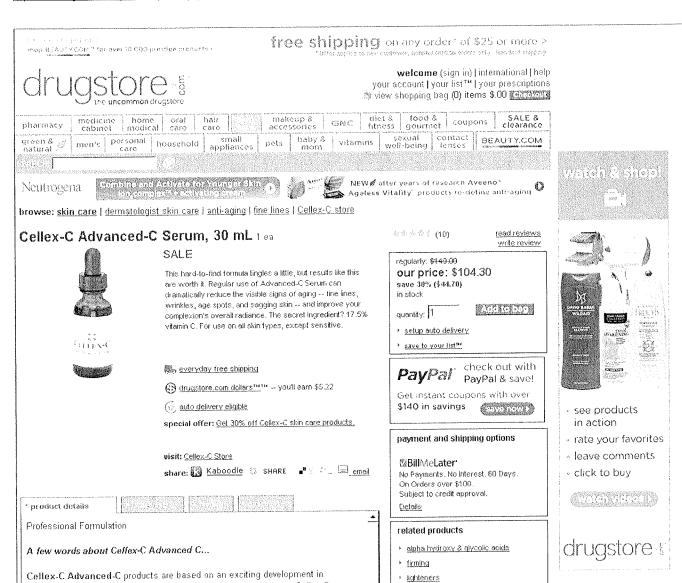
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If responding by paper mail, please include the following information: the application serial number, the mark, the filing date and the name, title/position, telephone number and e-mail address of the person signing the response. Please use the following address: Commissioner for Trademarks, P.O. Box 1451, Alexandria, VA 22313-1451.

STATUS CHECK: Check the status of the application at least once every six months from the initial filing date using the USPTO Trademark Applications and Registrations Retrieval (TARR) online system at http://tarr.uspto.gov. When conducting an online status check, print and maintain a copy of the complete TARR screen. If the status of your application has not changed for more than six months, please contact the assigned examining attorney.

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cosmetic chemistry. This faster penetrating formula - exclusive to Cellex-C allows for higher levels of vitamin C to pass through the skin and accelerate quicker, more visible results. This comprehensive, advanced collection of products addresses every facial need.

Cellex-C Advanced-C Serum is a unique, oil-free, patented vitamin C formulation that contains free form and hydrolyzed L-ascorbic acid, plus powerful anti-oxidants designed to help reduce the visible signs of aging and sagging skin.

Advanced-C Serom will darken with time due to a bio-chemically controlled reaction. This gradual oxidation is essential to the potency of L-ascorbic acid and will not significantly affect the efficacy of this product when used as directed.

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Manufactured by Cellex-C International Inc.

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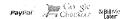
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- and aging.
- Evens out skin tone and refines texture on face, hands, neck and decolletage.
- Palmer's Skin Success contains Hydroquinone to lighten discolorations, Kojic Dipalmitate Complex to brighten skin tone.

Frequently Bought Together



Price For All Three: \$30.37

Add all three to Cart | Add all three to Wish List

These items are shipped from and sold by different sellers. Show details

- ¡▼ This item: Palmer's Age Spot Serum 1 fl oz (30 ml) by Palmer's
- 🔽 Palmers Skin Success Eventone Fade Cream Regular Jar 2.7 Oz by Palmer's
- 😺 Skin Success Eventone Fade Milk with Vitamin E and Alpha Hydroxy 8.5 Fluid Ounces by Skin Success

Customers Who Bought This Item Also Bought

Page 1 of 2







Skin Success Eventone Fade Milk with Vitamin E Ultimate Challenge and Alpha Hydroxy... 於於於(**(1)** \$7.39



Winter Sports The ා්ත්රාර් (65) \$14.82



<u>Tweezerman Stainless</u> Steel Slant Tweezer, Midnight Sky sicsiesiesiesie (60) \$18.00



Daughtry ~ Daughtry 30151025 (886) \$9.99



Product Description

\$11.99

Product Description

INDICATIONS: Palmer's Skin Success Age Spot Serum with patented Kojic Dipalmitate Complex is clinically proven to reduce hyperpigmentation. Palmer's Skin Success lightens age spots and freckles caused by sun exposure, hormones, Melasma and aging. Evens out skin tone and refines texture on face, hands, neck and decolletage. Multi-botanical extracts, Alpha Hydroxy Acids, Vitamin E and sunscreen work together to improve skin texture and help prevent future discolorations. Palmer's Skin Success contains Hydroquinone to lighten discolorations, Kojic Dipalmitate Complex to brighten skin tone, and Alpha Hydroxy Acids to even skin tone.

Product Details

Item Weight: 3.2 ounces

Shipping Weight: 12.8 ounces (View shipping rates and policies)

ASIN: BOOONRUYLU UPC: 010181073007 UPC: 010181073007

Average Customer Review: No customer reviews yet. Be the first.

Amazon.com Sales Rank: #128,757 in Health & Personal Care (See <u>Bestsellers in Health & Personal Care</u>)

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Ad feedback

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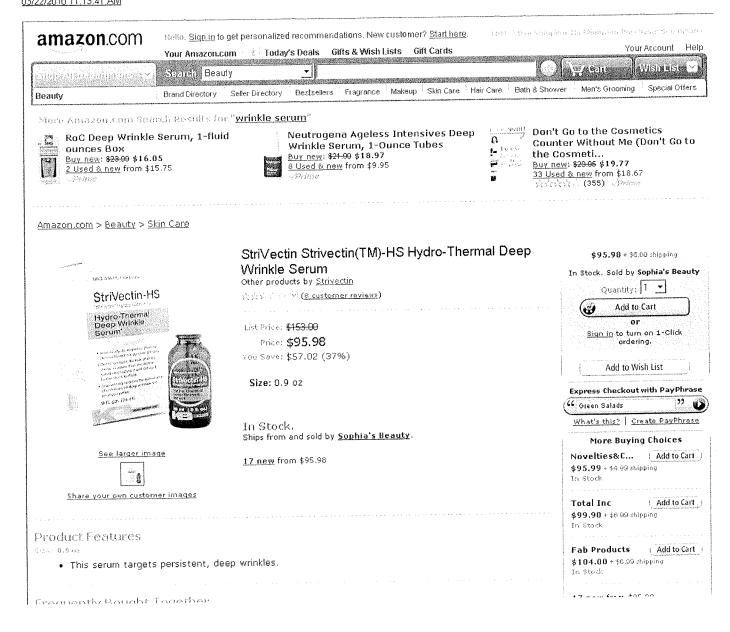
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Frequently Bought Together

9-24: 0.9 oz



Total List Price: \$380.95 Price For All Three: \$214.48

Add all three to Cart) Add all three to Wish List

These items are shipped from and sold by different sellers. Show details

- This item: StriVectin Strivectin(TM)-HS Hydro-Thermal Deep Wrinkle Serum 0.9 oz by Strivectin
- √ Klein Becker by Klein Becker For women StriVectin-SD (Intensive Concentrate For Stretch Marks)--/6OZ (Skincare - Night Care) by Strivectin
- ☑ StriVectin-SD Eye Cream, for Orbital Area Application 1.3 oz (38.45 ml) by Strivectin

Customers Who Bought This Item Also Bought

Page 1 of 8



Klein Becker by Klein Becker For women StriVectin-SD (Intensive... รไรร์สรัสส์สาใจ (11)



StriVectin-SD Eye Cream, for Orbital Area Application 1.3 oz (38... 38383838385 (**6**) \$46.50



StriVectin Neck Cream 1.4 fl oz (40 ml) න්ත්ත්ත්ත් (9) \$62,20



Strivectin Strivectin(R) <u>Instant Deep Wrinkle</u> <u>Filler</u> \$55.05567 **(2)**

\$39.90 - \$59.00



17 new from \$95.98

Share 3 13

StriVectin Instant Facial Sculpting Cream 1 ea နှံခင်္ခြင်္ခြင်္ \$59.99



Important Information

Indications

\$72.00

AGING SKIN, WRINKLES, CROW'S FEET, SAGGING SKIN, DEEP LINES, DEEP WRINKLES.

Water (Aqua), Tripeptide, Glycerin, Butylene Glycol, Sodium Polystyrene Sulfonate, Yeast Extract (Faex), PEG-8, Albumen, Polypeptide, Hydrolyzed Soy Protein, Glycereth-26, Arginine, Xanthan Gum, PEG-12 Dimethicone, Acrylates/C10-30 Alkyl Acrylate Crosspolymer, Tetrasodium EDTA, Phenoxyethanol, Methylparaben, Ethylparaben, Butylparaben, Propylparaben Isobutylparaben.

You apply StriVectin-HS with your fingertips directly to the most pronounced wrinkles at the corners of the eye, between the brow, around the lips and down the nasolabial folds (the lines that run from the edge of your nose to the corners of your mouth). Wait one to three minutes or until the serum becomes dry and slightly tacky to the touch. Soak a clean facecloth in hot (not scalding) water (wring out excess water) and hold it firmly to your face for sixty seconds or until the towel cools.

Legal Disclaimer

See Box

Product Description

S.Set 0.9 02

Product Description

What it is: A deep-penetrating, bio-functional complex specifically developed to support the integrity of the Dermal-Epidermal Junction (DEJ); a "wavy," complex layer of cells that act as the interface between the epidermis and the dermis and play a critical role in the natural process of tissue repair and the soundness of skin architecture. What it is formulated to do: StriVectin(TM)-HS Hydro-Thermal Deep Wrinkle Serum travels directly to the base of deep wrinkles, decompressing the look of sharp, visible creases from the dermal substratum upward and outward to the skin's surface, dramatically reducing the appearance of pronounced deep wrinkles, enlarged pores, and stubborn surface imperfections.

Product Details

5-20:0.9 GE

Item Weight: 1 ounces

Shipping Weight: 1 pounds (View shipping rates and policies)

ASIN: B000GAW796 UPC: 817777009408

Average Customer Review: ನೆಲೆಡ್ ಎ. 🔄 (8 customer reviews)

Amazon.com Sales Rank: #4,830 in Beauty (See <u>Bestsellers in Beauty</u>)

Would you like to give feedback on images?

Customers Who Viewed This Item Also Viewed

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Klein Becker by Klein Becker For women StriVectin-SD

(Intensive... \$555 (11) \$72.00

StriVectin StriVectin(R) <u>Instant Deep Wrinkle</u> Filler

ਤੁਲੀਆਂ ਹੈ ਜੀਵ**(2)**

\$39.90 - \$59.00



StriVectin-SD Eye Cream, for Orbital Area Application 1.3 oz (38...

න්ත්ත්ත්ත්ත් (6)

\$46.50



Strivectin-SD Anti-Aging Strivectin SD Cream Breakthrough Erase Face ඉත්ත්ත්ත් (1)

Wrinkles and St... skritskrinik (3).

\$71.06



\$76.00

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Buy StriVectin® 20% Off (3)

$\underline{http://www.amazon.com/StriVectin-Strivectin-Hydro-Thermal-Wrinkle-Serum/dp/B000GAW796}\\ \underline{03/22/2010.11:13:41.AM}$

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http://www.amazon.com/StriVectin-Strivectin-Hydro-Thermal-Wrinkle-Serum/dp/B000GAW796

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strivectin neck cream

strivectin sd (2)

(4)

2 star: 1 star:

Your tags: Add your first tag

Customer Reviews

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4 star:	(0)	න්න්න්ර්ර් (8 customer reviews)
3 star:	(1)	

Most Helpful Customer Reviews

(2)

8 of 8 people found the following review helpful:

ಸಂಸಾರ್ಪನ್ Try It Yourself, May 12, 2008

By Sungsg "Hugz Sungsg & JL" (NW Idaho) - See all my reviews

Amazon Yenfied Purchase (What's this?)

not certain about this product.... been using this product since December 2007 as prescribed, but it seems to have plateau out a few months ago. No difference has been realized by me since February. Based on usage, I've been purchasing one monthly, so dunno if I will continue using it. After first 4 weeks of usage could notice a difference in my pores, slightly smaller pores, but as far as my laugh lines, no appreciable difference. Maybe I'm doing something wrong.

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Comment (1)

Was this review helpful to you? Yes No

7 of 7 people found the following review helpful:

By Moses First "Moses" 🕏 (Fresno, Ca USA) - See all my reviews

I bought the StriVectin-HS 2 1/2 months ago, using it twice a day and followed instructions. I have seen no progress in the deminishing of my wrinkles. I paid \$153.00 for it at Gottschalks and I have been very disappointed in this product.

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4 of 4 people found the following review helpful:

್ಯಾಸ್ಟರ್ಪ್ don't waste your money, February 21, 2009

By <u>C. Schrauben</u> ⊗ (Grand Rapids, MI USA) - <u>See all my reviews</u>

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☆☆☆☆☆ WORTHLESS!!!!

USED THIS EXACTLY PER INSTRUCTIONS AND NOTHING!!!!WASTED ALOT OF MONEY ON SOMETHING THAT DID NOTHING!!PLEASE DON'T MAKE THE SAME MISTAKE!!! Read more

Published 1 month ago by Jacqueline Evans

సుకాని A Hassle to apply and benefits are iffy.

Be smart and purchase this from a seller who allows returns within 30 days. If you don't see improvement in 3 1/2 weeks, return it.

Read more

Published 4 months ago by Sinclair

ກ່ວວ່າວິດ StriVectin-HS

I Love the product however "The Beauty Center" is the company I had to go through to get it was horrible on the delivery! I will order it elsewhere next time.

Published 6 months ago by J. Gillen

⇒>>>>> CROWS AWAY!!

I LOYALY used this product for 2 months. I applied very little. Applied on small fine lines. The begging of small crows feet? My frown line? 2 big of lines on my forehead?

Read more

Published 13 months ago by Lee5458

http://www.amazon.com/StriVectin-Strivectin-Hydro-Thermal-Wrinkle-Serum/dp/B000GAW79603/22/2010 11:13:41 AM

REAL NAME	ကိုလုံးရှိသည်။ sad
I bought this product hoping everything I read was true. It does not even come close to measuring up to it's claims!! I used the entire bottle- faithfully every day, and was very disappointed. I see no reduction of fine lines and wrinkles. My olay moisturizer did a better job of making me look younger!! Don't waste your money.	i had hoped this product would do what is said. it didn't and \$165.00 for something that did nothing is a lot of money. Read more
Help other customers find the most helpful reviews Report this Permalink	Published 16 months ago by deb
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	(60)
Share your thoughts with other customers: Create your own review	✓ Only search this product's reviews
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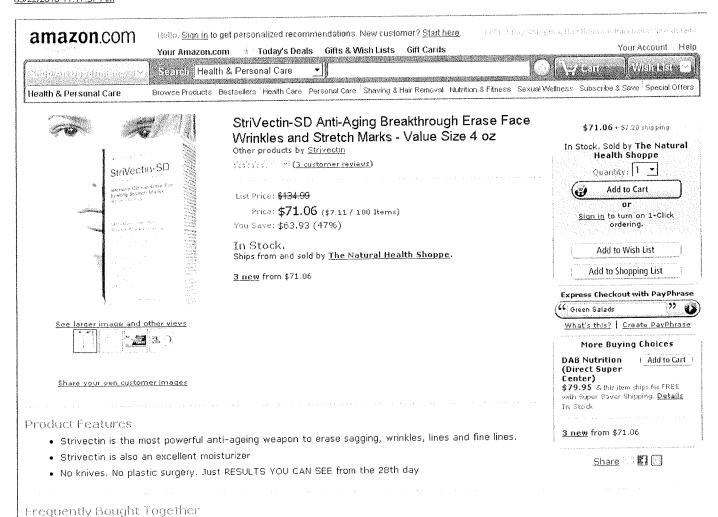
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Total List Price: \$304.94 Price For All Three: \$179.76

Add all three to Cart) Add all three to Wish List

These items are shipped from and sold by different sellers. Show details

- 🔽 This item: StriVectin-SD Anti-Aging Breakthrough Erase Face Wrinkles and Stretch Marks Value Size 4 oz by Strivectin
- ☑ StriVectin-SD Eye Cream, for Orbital Area Application 1.3 oz (38.45 ml) by Strivectin
- ▼ StriVectin Neck Cream 1.4 fl oz (40 ml) by Strivectin

Customers Who Bought This Item Also Bought

Page 1 of 12



Application 1.3 oz (38... 52525555 (6) \$46.50



StriVectin Neck Cream 1.4 fl oz (40 ml) - victics' siede (9) \$62.20



Klein Becker by Klein Becker For women StriVectin-SD (Intensive... Probability (11)

\$72.00



StriVectin-SD Eye Cream StriVectin Neck Cream (1.30z) එන්න්න්ඩේ (5) \$59,00



1.4 fl oz ທັດໄດ້ເປັດ. (1)

\$65.99



Important Information

Indications

AGING SKIN, WRINKLES, CROW'S FEET, SAGGING, TIRED SKIN, FATIGUE, LINES, FINE LINES.

STRIVECTIN-SD's efficacy is at its peak during nightime, when you are asleep. It is extra-concentrated, so use it sparingly and AVOID THE EYE CONTOUR AREA because redness, tearing and allergies might occur because it is extra-concentrated. DO NOT USE IT AROUND THE EYES.

Product Description

Product Description

Before you consider having plastic surgery, you might want to consider trying STRIVECTIN-SD, THE 21st CENTURY ANTI-AGING ADEAKTHPOLICH. If you haven't done so vet here is your chance to give your face a far more vouthful annearance. Women who already had BREAKTHROUGH. If you haven't done so yet, here is your chance to give your face a far more youthful appearance. Women who already had a facelift, back-up their surgery with a Strivectin-SD treatment in order to maximize the results. Only because Strivectin-SD is the most powerful weapon ever invented to fight the damage of time. The RESULTS are the GREATEST NEWS: STRIVECTIN'S IMPACT ON WRINKLES SHOWS AFTER ONLY 28 DAYS. So all you have to lose by giving it a try...is to LOSE YOUR WRINKLES.

Product Details

Shipping Weight: 2 pounds (View shipping rates and policies)

ASIN: B001377RZK

Average Customer Review: ಸರ್ವಸಸ್ 🖯 (3 customer reviews)

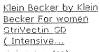
Amazon.com Sales Rank: #5,556 in Health & Personal Care (See <u>Bestsellers in Health & Personal Care</u>)

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Selection (11) \$72.00



StriVectin SD Cream Strecth Mark & Wrinkle Removal 6 oz. \$78,00



<u>StriVectin Instant Facial</u> Sculpting Cream 1 ea vialata (a) \$59.99



StriVectin-SD Intensive Concentrate, StriVectin For Existing Str...





StriVectin-SD Eye Cream, for Orbital Area Application 1.3 oz (30... රත්ත්ත්ත්ර (6)

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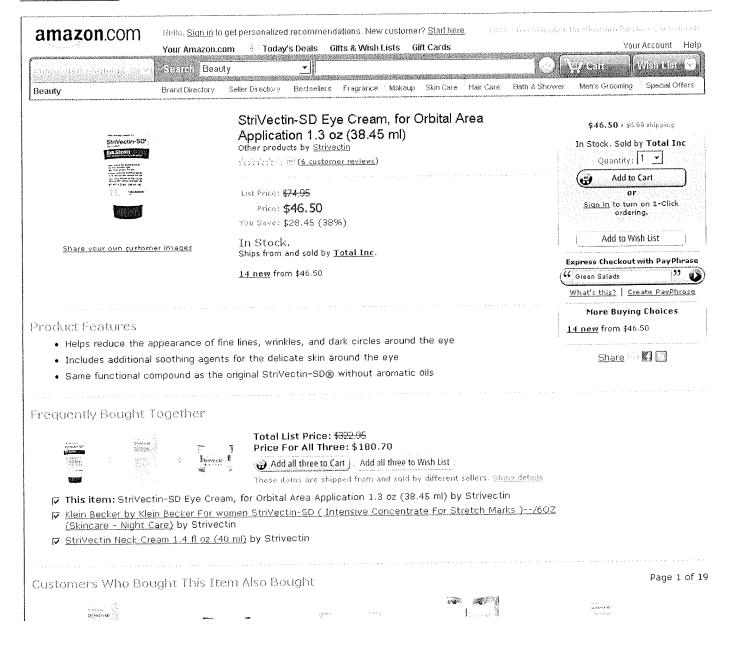
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http://www.amazon.com/StriVectin-SD-Cream-Orbital-Application-38-45/dp/800186YRA4/ref=pd_bxgy_hpc_text_b 03/22/2010 11:23:33 AM



Klein Becker by Klein Becker For women StriVectin-SD (Intensive... ທ່ອນໃດປ່ອນ (11)



StriVectin Neck Cream 1.4 fl oz (40 ml) 公共治され(9) \$62,20



StriVectin Instant Facial Sculpting Cream 1 ea 索索索索索 (1) \$59.99



\$71.06

Strivectin-SD Anti-Aging Strivectin SD Cream Breakthrough Erase Face (1) Wrinkles and St... प्रेरक्षेत्रीय है (3)

\$76.00



Important Information

\$72.00

Water (Deionized), C12 15 Alkyl Benzoate, Seasame Oil, Capric/Caprylic Stearic Triglyceride, Cetearyl Olivate (Source Olive Oil), Sorbitan Olivate, Sweet Almond Oil, Striadril Complex (Consisting of Palmitoyl Pentapeptide-3, Phyllanthus Emblica Fruit Extract, Siegesbeckia Orientalis Extract, Polyglycerylmethacrylate, Propylene Glycol, Palmitoyl Oligopeptide, Glucosamine HCI, Algae Extract, Yeast Extract, Urea, Butylene Glycol, Hydrocotyl Extract, Coneflower Extract, Hydrolyzed Wheat Protein,

Ingredients

Hydrolyzed Wheat Starch, Imperata Cylindrica Root Extract, Bearberry (Arctostaphylos Uva Ursi) Extract, Licorice PTH), Glycerin, PPG 12/SMDI Copolymer, Glyceryl Stearate, PEG 100 Stearate, Stearic Acid, Cocoa Butter, Kukui Nut Oil, Santalum Album Extract (Sandalwood), Phellodendron Amurense Bark Extract, Hordeum Distychum Extract, Meadowsweet, Hydrocotyl Extract, Amino Acids, Green Tea Extract, Shea Butter, Algae (Seaweed) Extract, Mugwort Extract (Artesemia Vulgaris), Plantago Lanceolatá Leaf

Ingredients

Extract, Crithmum Maritimum Extract, Phenoxyethanol, Tocopherol (Natural), Mango Butter, Methylparaben, Xanthan Gum, Triethanolamine, Propylparaben, Dipotassium Glycyrrhizate, Stearyl Glycyrrhetinate, Disodium EDTA, Tetrahexyldecyl Ascorbate (Vitamin C), Retinyl Palmitate

Directions

Begin with clean, dry skin. Apply StriVectin-SD Eye Cream twice daily, morning and evening (do not exceed three applications per 24-hour period).

Use sparingly. StriVectin-SD Eye Cream is a concentrated formula. Gently massage StriVectin-SD Eye Cream into the target area, using a circular motion, until completely absorbed.

StriVectin-SD Eye Cream penetrates immediately, leaving your skin youthful, smooth, and silky.

As Strivectin-SD Eye Cream begins to work within your chosen target a

Product Description

Product Description

Congratulations for choosing StriVectin-SD® Eye Cream! You have made the right choice.

Helps reduce the appearance of fine lines, wrinkles, and dark circles around the eye.

Includes additional soothing agents for the delicate skin around the eye.

Same active formula as the original StriVectin-SD® without aromatic oils.

There is no question that StriVectin-SD® (the stretch-mark-reducer-turned-anti-wrinkle-phenomenon) has become the most sought-after topical around the globe.

However, there is one drawback: since the original StriVectin-SD formula was designed as a stretch-mark reducer, it contained aromatic agents (such as peppermint) which caused some user's eyes to water when applied to the delicate skin in the orbital eye area. . . the eyelid and that area directly below the eye. sing on as had reing sheet consequence as sheet fixed and sheet ministrate totals, needs at the 200 minutes and

http://www.amazon.com/StriVectin-SD-Cream-Orbital-Application-38-45/dp/B00186YRA4/ref=pd_bxgy_hpc_text_b 03/22/2010 11:23:33 AM

Because of the effectiveness of StriVectin-SD at reducing the appearance of fine lines and facial wrinkles, Klein-Becker USA® was asked to prepare a formula that could be applied to the orbital eye area.

Strivectin-SD Eye Cream consists of the same active compounds contained in the original Strivectin-SD formula. . . but without the aromatic components, and enhanced with soothing agents to help protect the delicate skin around the eyes. . . it even helps reduce the appearance

International distribution is not authorized without prior written consent.

Product resale allowed only through authorized representatives.

30 Day Guarantee

Manufactured in the USA

Product Details

Item Weight: 2.7 nunces

Shipping Weight: 2.1 ounces (View shipping rates and policies)

ASIN: B00186YRA4 UPC: 817777002201

Average Customer Review: かかかん 🖯 (<u>6 customer reviews</u>) Amazon.com Sales Rank: #74 in Beauty (See <u>Bestsellers in Beauty</u>)

Popular in this category: (What's this?)

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StriVectin-SD Eye Cream Klein Becker by Klein <u>Becker For women</u> Strivectin-SD (Intensive... 18 18 18 18 (11) \$72,00

StriVectin StriVectin-SD® Eye Cream 在最大信息(21) \$59,00



StriVectin SD Cream Strecth Mark & Wrinkle <u>Pemoval 6 oz.</u> \$78.00



StriVectin-SD Anti-Aging Breakthrough Erase Face Wrinkles and St... జిల్లాను సహహహే స్ట్ **(3)** \$71.06

Paye 1 of 11

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Strivectin Eye Cream 1.3 oz

StriVectin-SD Eye Cream

Obagi Elastiderm Eye Treatment Cream

StriVectin Neck Cream 1.4oz Lifts, Shapes, and Refines

ກ່ຽນໃຊກໃຊ້ໄດ້ (<u>6</u>) \$49.00 + \$4.99 Est. shipping Midwest Skincare

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Your tags: Add your first tag

Customer Reviews

3 star:	(3)
4 sta::	(0)
3 star:	(2)
2 star:	(1)
1	(6)

Average Customer Review

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Anast Helpful Customer Reviews

15 of 15 people found the following review helpful: Sisterialist UNBELIEVABLE!, May 13, 2005

By KB 2 (United States) - See all my reviews

by No :: (Onited States) = See all hity reviews

I've tried them all - perscription RetinA, laser treatments, Botox. I was highly skeptical that an over the counter cream would be effective, but the science was interesting to me. The label says you will see a difference in 28 days. I saw a difference day one, a big difference day 5, a REMARKABLE difference day 14 - now I can't WAIT for day 28. It truly is unbelievable. My crows feet - the deep ones, are dissapearing before my eyes (and beside them!!!!) - the deep creases in my forehead and neck are significantly reduced. Consider me a convert - I only wish I could bathe in it!!!

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3 of 3 people found the following review helpful:

ಸೇಶ್ವರ್ಣ Radical Difference?, November 9, 2006

By <u>C. White "SpunSugary"</u> (Detroit, MI) - <u>See all my reviews</u>

This eyecream is no better than the one I'd been using. A Loreal product that I paid \$20 for. I was expecting something a little better for 3X the price.

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2 of 2 people found the following review helpful:

ేదన్నింగ్ Worked well but temporary and very expensive, November 17, 2009

By Sinclair "=)" ~ (San Diego, CA) - See all my reviews

I think this product is overpriced and will only help some people but if it does help you significantly, it may be worth the cost. A good friend and I both started using this around the same time. We both noticed an undeniable difference in the fine lines on/around our eyes/eyelids. The areas above my eyelids were lifted from use of this product and this made my eyes look years younger.

For some reason, this effect was temporary for me. The wrinkles and sagging seemed to creep back for me and my friend. I can't explain why. I stopped using it for a few months figuring it was a waste of money to keep using it if it wasn't helping. When I went back to using it, I saw improvement, again. I can't explain why it would stop working and then work again, but this is what happened with me. If anyone can explain this, please add a comment to my review.

Given their competition, I think it would be a smart marketing move for the company to lower the price.

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Mast Recent Customer Reviews

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I am in my 30s and this product is great. It softens the skin around my eyes and makes it feel great. I recommend this product to anyone.

Published 1 month ago by S. Matyushkina

න්ත්ත්ත්ව quick results!

Within a couple of days I could see a very notable difference in the lines around my eyes. However, although this claims - as a somewhat secondary effect - to reduce dark circles,... Read more

Published 3 months ago by Rose

ನವರ್ಷವರ್ಷ Umm..NO

I have been using this for months and I have had no results as far as helping fine lines or crows feet. <u>Read more</u>

Published 8 months ago by Alendra Dior

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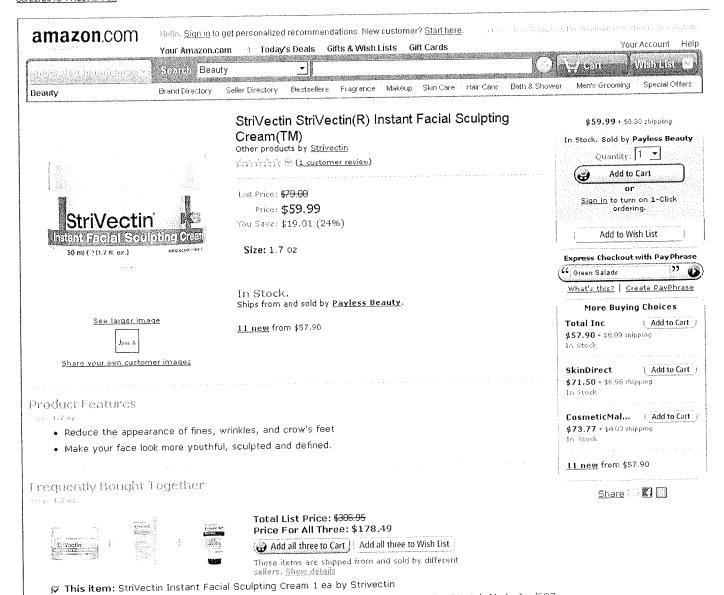
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Klein Becker by Klein Becker For women StriVectin-SD (Intensive Concentrate For Stretch Marks)--/602

∇ StriVectin-SD Eye Cream, for Orbital Area Application 1.3 oz (38.45 ml) by Strivectin

(Skincare - Night Care) by Strivectin

Customers Who Bought This Item Also Bought

Page 1 of 2



StriVectin StriVectin-SD® Eye Cream ກໍ່ໄດ້ເກັດກໍ່ A (21) \$59.00



The Mayo Clinic Diet: Eat Well, Enjoy... by Mayo Foundation for M... ກ່ວາວກ່ວານ (35) \$16.47



Avon BEYOND COLOR Plumping Lip Conditioner SPF 1S ກ່ວງໃດກໍ່ໄດ້ໃດໄດ້ (23) \$8.00



StriVectin Neck Cream 1.4 fl oz (40 ml) 1/2 1/2 1/2 1/2 (4) ton.nn



Dior DiorShow Mascara ýplofololi (144) \$24.00



Important Information

Water, Propylheptyl Caprylate, Hydrogenated Polyisobutene, Yeast Extract (Faex), Hydrolyzed Soy Protein, Glycerin, Silica, Ethylhexyl Palmitate, Caprylic/Capric Triglyceride, Isododecane, Cetyl Alcohol, C12-15 Alkyl Benzoate, PEG-100 Stearate, Glyceryl Stearate, Myristyl Myristate, Stearyl Alcohol, Anemarrhenae Asphodeloides (Root) Extract, Calcium Hydrozymethionine, Butyrospermum Parkii (Shea Butter), Secale Cereale (Kye) Seed Extract, Caprylyl Glycol, Acrylates/C10-3U Alkyl Alcrylate Crosspolymer, Phenylethyl Resorcinol, Pentylene Glycol, Butylene Glycol, Prunus Amygdalus Dulcis (Sweet Almond) Seed Extract, Sorbitan Stearate, 3- Aminopropane Sulfonic Acid, Hydroxyethylcellulose, Disodium EDTA, Tocopherol, Triethanolamine, Dimethicone/Vinyl Dimethicone Crosspolymer, Polysorbate 20, Ethylhexylglycerin, Phenoxyethanol, Methylparaben, Ethlparaben, Butylparaben, Propylparaben, Isobutylparaben, Sodium Methylparaben, Sodium Ethylparaben, Sodium Methylparaben, Sodium Ethylparaben, Sodium Propylparaben.

Product Description

Sign 1.7 ax

Product Description

Not only will StriVectin's New Instant Facial Sculpting Cream reduce the appearance of fine lines, wrinkles and crows' feet, but it also accentuates your cheekbones & jaw line as it lifts, tightens & tones your skin... making your face look more sculpted, youthful & defined. It even reduces the appearance of "ear wrinkles"... those nasty little lines in front of your ears (you know, the wrinkles you ignore but everyone else gets to see). So if you want to transform your entire facial contour, get StriVectin's NEW Instant Facial sculpting Cream. You won't be disappointed.

Product Details

Had Lifes

Item Weight: 6.6 ounces

Shipping Weight: 1 ounces (View shipping rates and policies)

ASIN: BOD23YUUQI UPC: 817777001686

Average Customer Review: ಸರ್ವಸರ್ಕ್ 🥳 (<u>1 customer review</u>) Amazon.com Sales Rank: #45 in Beauty (See Bestsellers in Beauty) Popular in this category: (What's this?) #6 in Beauty > Skin Care > Body > Moisturizers > Lotions

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Sculpting Cream 1.7oz \$79.00



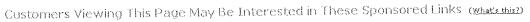
Strivectin Instant Facial Sculpting Cream 1.2 Oz \$59.99



Sculpting Cream 2-Pack 35ml Each \$112.00



StriVectin Instant Facial StriVectin Neck Cream 1.4 fl oz (40 ml) \$\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\fra \$62.20



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StriVectin Instant Facial Sculpting Cream

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Dermstore



StriVectin Instant Facial Sculpting Cream

\$79.00 + Free Shipping √ Skinterra



Instant Facial Sculpting

tits'eskes'etik (1) \$79.00 + \$5.95 Est. shipping ULTA Beauty

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strivectin neck: cream strivectin (s) stretch marks (s) anti-aging (t) skin care (4) stretch marks (s) anti-aging (t) strivectin-sd (2) treatment (s) face cream (s) face cream (s) Your tage: Add your first tag Customer Reviews 1 Review Star (1) Average Customer Review (tage of the customer review) (Teate of the customers) (Teate of the customer of the customers) (Teate	Strivectin neck cream strivectin (3) goose neck (3) people should be provided by anti-aging (1) stretch marks (4) anti-aging (1) stretch marks (4) strivectin-sd (2) face cream (3) face cream (3) face cream (4) Your tage: Add your first tag Customer Reviews I Review State: (1) Average Customer Review state: (1) Average Customer Review state: (9) Average Customer review for the face of			vant tag (keyword that's		e e end	
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By Mary Terese Weir - See all my reviews Real Name Amazon Verified Purchase (what's this?) Strivectin products have been on the market for many years, and there's a reason for that. They work. Creamy, easy to apply and the result is lovely, soft skin. If there were one thing I would change about Strivectin, it would be to add sunscreen to it. And fragrance. Unfortunately, both of those additives would ruin the product! I was told by a dermatologist that in her field, they actually advise against using facial creams with sunblock and fragrance, as the additives like that irritate skin. I am very happy to have chosen Strivectin (again) and will continue to use it. I like the rosy glow it gives my face, and I have noticed an overal smoothing of my skin. Help other customers find the most helpful reviews Report this Permalink Was this review helpful to you? Yes i No Comment Search Customer Reviews Share your thoughts with other customers: Create your own review	By Mary Terese Weir - See all my reviews REAL NAME Amount Verified Purchase (What's this?) Strivectin products have been on the market for many years, and there's a reason for that. They work. Creamy, easy to apply and the result is lovely, soft skin. If there were one thing I would change about Strivectin, it would be to add sunscreen to it. And fragrance. Unfortunately, both of those additives would ruin the product! I was told by a dermatologist that in her field, they actually advise against using facial creams with sunblock and fragrance, as the additives like that irritate skin. I am very happy to have chosen Strivectin (again) and will continue to use it. I like the rosy glow it gives my face, and I have noticed an overal smoothing of my skin. Help other customers find the most helpful reviews Report this Permalink Ad feedback Was this review helpful to you? (Yes j (No)) Search Customer Reviews	Most Helpful C	ustumor	Reviews			
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LASPLASH.COM: Health & Beauty

SkinCeuticals - Antioxidants and Skin Care Basics

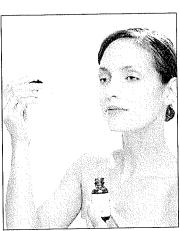
By Susi Phoenix

Taking proper care of our skin is an ongoing, year-round process, particularly when we spend more time outdoors. If you care about your skin but fail to use the right products, not only will the results be disappointing but it will be a waste of your time and money. Even worse, you will not be getting the protection and benefits your skin desperately needs in today's stressful, polluted environment. So take the time to do at least a bit of research to know what you need and the best way to get it.

First, you need to know about oxidants (also known as free radicals) and anti-oxidants. One easy way to understand the effect of oxidants is to think about them as the body's normal 'rust' factor. Oxidants are the enemy of healthy cells. This is considered the primary cause of aging and a variety of diseases.

Oxidants thrive by exposure to sunlight or pollution, smoking, drinking alcohol, stress or unhealthy eating habits. Basically, a free radical is a thief and your body pays the price. It is unstable element due to a missing element. So if steals from another cell to stabilize itself, damaging the other cell in the process. Besides the impact on your health, it also causes the skin to lose its youthful appearance.

Luckily, there is a variety of antioxidant agents to minimize this destructive effect, by binding the free radicals together. Even better, the anti-oxidants can help already damaged cells. However, it can only be a guardian once, so ideally they are constantly replenished. Otherwise, you get premature aging, a compromised immune system leading to higher risk for certain diseases, hyperpigmentation, and loss of skin elasticity.





The only way to neutralize this oxidative stress is with antioxidants. While taking care of what goes into your body is easy with the available supplements and a healthier diet, dealing with the effects of oxidants in your skin is a different matter. You can't control the level of sunlight or pollution it is regularly exposed to unless you plan on making a hazmat suit part of your daily attire.

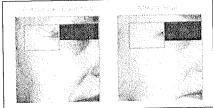
Next, be aware that your skin constantly needs vitamin C. It is crucial for collagen production, which is destroyed by oxidative stress. Taking a pill isn't the answer either, topical application is needed. The body limits the amount of orally ingested antioxidants able to benefit the skin. There are many products to pick from. Yet, when formulated properly as SkinCeuticals products are vitamin C can be delivered to the skin at 40 times the levels achieved orally.

And vitamin E is crucial too as the body's most important fatsoluble antioxidant. Its effect on cell membranes is critical to keep the cell whole. Otherwise, the cell and its components will be destroyed. It safeguards other fat-soluble vitamins from will be טפטווין אוואס טפטווין אוואס טפטווין אוואס טפטווין אוואס טוויפן זער אווין אוואס טוויפן זער אווין אוואס oxidative injury, and is needed for tissue repair, to promote healing as well as being a natural anticoagulant.

Just being careful outdoors doesn't solve the whole problem of skin protection, unfortunately, due to indoor photodamage. Many people are not aware that UVA rays, unlike UVB, can penetrate glass exposing the skin to detrimental photoaging at all times. So it is an issue indoors or out, especially if you have one of those really nice corner offices with lots of windows, a great sun room or spend a lot of time in your car.

The SkinCeuticals advantage is acknowledged in their trail blazer status. They were the first to formulate pure high concentration L-ascorbic acid and transparent zinc oxide. Or to effectively combine pure vitamin C and pure vitamin E. To see for yourself the amazing difference the SkinCeuticals advantage makes, check out more before and after pictures at http://skincarenc.com/skinceuticals.html

Finally, the most successful antioxidant skin care requires acknowledgement of the critical role of



Ferulic Acid. It was discovered to be a performance enhancing antioxidant at the Duke University Medical Center. These amazing conclusions are discussed in peer reviewed medical journals with unprecedented scientific data. And Ferulic Acid is the comerstone of the SkinCeuticals advantage in their scientifically grounded new products.



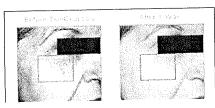
SkinCeuticals, highly and continually praised by doctors, is now introducing C E Ferulic Serum, a powerful antioxidant cocktail with 8-Fold Photoprotection (measure of a product's ability to neutralize free radicals and protect against oxidative stress) for anti-aging skincare. It beats available products with its advanced antioxidant technology of AOX+. Add up to 06% sunburn cell reduction to neutralize the type of unavoidable, every day type of environmental damage we are all constantly exposed to, and you have another winner in the SkinCeutical line.

For adequate skin protection, an understanding of the difference between photoprotection and SPF is needed. Photoprotection is not SPF (a measure of protection against UVB radiation only). Photoprotection is a measure of a product's ability to protect against oxidative stress. To date no approved, standardized measure of UVA protection exists in the United States.

How does C E Ferulic Acid compare with sunblock? Recent studies reveal that sunscreens block only 45% to 55% of free radicals generated in skin by UV light. The average consumer does not adequately apply sunscreen, using only one quarter of the sunscreen needed for full SPF protection. So SPF 30, wrongly used, is only as effective as an SPF of 3 to 4 (radically less). Even worse, consumers commonly have false confidence in the sunblock they are misusing, sadly unaware of the resulting true destruction to their skin.

Just using a sunblock correctly is simply not enough either. That's where SkinCeuticals so boldly and successfully stepped in. These amazing serums are designed to not only prevent future damage and protect the skin from new injury but aid in correcting previous damage. Sunblocks are not.

C E Ferulic doesn't come off the skin the way sunscreen does it was desinned for lonner term



sunscreen does. It was designed for longer term protection within the skin so it can't be washed or rubbed off. In contrast, sunscreens must be applied



between the skin and the sun to work at all, and then constantly reapplied. For the above reasons, SkinCeuticals recommends a dual attack by the daily use of a broad-spectrum sunscreen in partnership with C E Ferulic for the maximum photoprotection.



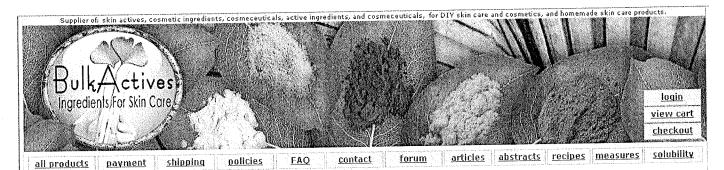
811-1660, or visit www.skinceolicals.com.

To sum up, the SkinCeuticals exciting AOX+ Serums give your skin certain advantages. It protects against environmental stresses and damage causing premature aging. It neutralizes free radicals. It repairs existing photodamage by improving skin tone and stimulating collagen production. It reduces surburn cell formation by 96%. It minimizes the appearance of fine lines and wrinkles, gives a more even and youthful skin tone. Its reservoir effect works so that once absorbed, it remains protective up to 4 days later. Plus it's an excellent addition to sunscreen protection. It is light-weight and fast absorbing to be ideal for all skin types.

So there are some basics necessary to an understanding of how to be the best custodian of your irreplaceable skin. That, combined with a trial of the wonderful products from SkinCeuticals, should convince you how valuable their use is to nurture and safeguard your skin.

For more information and to find a dealer, call 1-800-

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Ferulic acid 99% (Natural)

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Ferulic acid in skin care:

- otoda comng antioxidant.
- lightening & brightening stabilizes L-Ascorbic
- sun damage protection

Ferulic Acid Natural

15g / 0.53oz US\$5.45 ▼

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Ferulic acid is commonly used in the DIY C+E Ferulic serum (commonly known as skinceuticals). The powder provides broad spectrum sun damage and antioxidant protection. It is also used for to skin lightening and brightening formulas.

Read references and abstracts

updates or <u>read our bloo</u> for skin care articles. Free original software: Recipe creator database and HLB calculator

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Bulk Actives are DIY skin care

suppliers of skin actives, cosmetic ingredients,

cosmeceuticals, active ingredients, and standardized botanical extracts for diy skin care products and homemade

New & Updates

Last website update:

Attention: BulkActives is a

Orders are processed on

Saturdays and mailed on Mondays at the latest,

Tue, Mar 16, 2010

part-time business.

usually earlier. Social networking:

We now offer a range of NON-formaldehyde releasing <u>preservatives</u>: phenoxyethanol (paraben free) & paraben and phenoxyethanol combo

Back in stock!! Green Tea EGCG <u> White willow - bark extract</u> Ferulic Acid MAP

Out of stock: <u>d-Panthenol</u> Tetrasodium FDTA

Product details

Assay: 99.3% Appearance: Fine white to off white powder. Solubility: non-denatured ethanol, very slightly soluble in water, slightly soluble in

<u>Dimethyl isosorbide</u>
Percentage for C+E+Ferulic: 0.5%

Suggested percentage: No data available - up to customer's discretion. Storage: Store in cool and dry place. Keep away from direct strong light and heat. Country of origin: China Manufacturer's Data: Ferulic Acid COA

C+E+Ferulic

"SkinCeuticals antioxidant combination of C+E+Perulic delivers an unprecedented 8 times the skin's natural protection against photoaging - neutralizing free radicals, helping build collagen, and providing unmatched antioxidant protection. Containing 15% pure L-ascorbic acid and 1% alpha tocopherol, the addition of



We accept payment via PayPal





0.5%Ferulic acid doubles the already synergistic benefits of the original highpotency formula, C+E, transforming it into an unrivaled super-antioxidant combination." SkinCeuticals, CE Ferulic Fact Sheet Tetrasodium EDTA

Alpha Bisabolol Xanthan Gum Quercetin Oat Beta Glucan

GA84

DIY C+E+Ferulic serum

Skinceuticals ingredient listing - DIY alternative

Water
Ethoxydiglycol (solvent for Ferulic acid, penetration enhancer) - Replace with Arlasolve DMI
L-ascorbic Acid
D70
L-ascorbic Acid
Solvent for Ferulic acid) - Can use Ethanol (UNdenatured ethanol, vodka, grain alcohol, Everclear). Do NOT use denatured alcohol.
Glycerin (solvent, humectant)
Laureth-23 (nonionic surfactant, emulsifier) - Replace with Gelmaker Plus
Alpha Tocopherol 1% - Replace with mixed tocopherols and tocotrienols
Phenoxycthanol (bactericide)
Use Euxyl PE 9010 or Euxyl K300
Triethanolamine (pH balancer)
Ferulic Acid .5%
Panthenol (humectant, emollient, moisturizer)
Sodium Hyaluronate (humectant)
Optional extras: Idebenone, CoQ10, ascorbyl tetraisopalmitate, centela
asiatica

References:

- 'Stabilized ascorbic acid compositions and methods therefor' (Pinnell's C+E+ferulic patent) <u>USPTO patent search</u> (patent number: 20050154054) or <u>Google patents</u>
 SkinCeuticals CE Ferulic Fact Sheet
- SkinCeuticals CE Feruilc Fact Sneet
 'Feruilc acid stabilizes a solution of vitamins C and E and doubles its photoprotection of skin' Read Full Text here

Ferulic acid in skin care:

- antioxidant,
- lightening & brightening
- stabilizes L-Ascorbic
- sun damage

photo compa Ferulic Acid Natural

15g / 0.53oz US\$5.45 💌

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What is it: Ferulic Acid

I am in danger of getting antioxidant fatigue. There seems to be a new super-duperbetter-than-anything-that-has-come-before-it product every week. Still, the latest to reach my radar did pique my interest: ferulic acid.

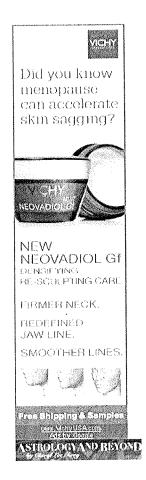
Ferulic acid is found in the cell walls of plants such as wheat, rice, peanuts, oranges and apples. It seems to be particularly abundant in coffee and amaranth (the name comes from the Greek for "the one that does not wither," presumably as a result of all the ferulic acid). It is an antioxidant that can seek and destroy several different types of free radical – 'superoxide', 'hydroxyl radical', and 'nitric oxide' – according to a 2002 Japanese study.

A 2004 Italian study concluded that ferulic acid is a more powerful antioxidant than alpha-tocopherol (vitamin E), beta-carotene, and ascorbic acid (vitamic C). Meanwhile, Duke University researchers blended it with vitamin C and E and proclaimed it a "potent ubiquitous plant anti-oxidant". In fact, it was discovered to act synergistically with other antioxidants and, in this case, rendered the vitamins C and E more powerful. The Duke Study found it particularly good for preventing sun damage, and studies elsewhere have demonstrated that exposure to ultraviolet light actually increases the antioxidant power of ferulic acid.

Naturally this super antioxidant does more than prevent wrinkles. It fights cancer, is helpful for diabetics and even reduces hot flashes.

Products with ferulic acid aren't easy to come by. There is a DIY option for around \$9. You can buy a small tube of ferulic acid from Skin Actives and add it other potions. But be careful with what you mix it or you could find yourself making an appearance in court. The topical combination of vitamin C (15%), vitamin E (1%) and forulic acid (0.5%) has been natented by SkinCouticals. They sell the formula, called





ferulic acid (0.5%) has been patented by SkinCeuticals. They sell the formula, called CE Ferulic, for \$139, although there is an offer currently running on Amazon.com.

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« « Stila Rock The Vote Red Lipstick Reviewed and recommended: REN Moringa Seed Micro-Protein Universal Shampoo » »

4 Responses to "What is it: Ferulic Acid"

. jo says:

July 22, 2008 at 8:41 pm

Pure Skin Formulations (PSF) offers a 2g "Ferulic Acid Cosmetic Additive" for \$6 with the following:

Add to 102/30mL of your favorite serum, cream or lotion for an instant added antioxidant boost! Ferulic Acid has been found to provide excellent antioxidant and anti-inflammatory properties. Ferulic Acid also has been found to stabilize and boost the effectiveness of L-ascorbic Acid (Vitamin C) in aqueous solutions.

To use: Add contents of vial to 1 ounce (30mL/30g) of your favorite serum, cream, or lotion. Dilute. Do not apply directly to skin. Shake or mix well. Hot for addition to carbomer-based gels. Water soluble.

https://www.psfskincare.com/cgi-bin/commerce.cgi? preadd=action&key=AXBST&reference=/cgi-bin/commerce.cgi%3Fsearch% 3Daction%26keywords%3Dall%26searchstart%3D0%26template% 3DPDGCommTemplates/FullHav/SearchResult.html%26category%3DCCC3

marta says:
 July 23, 2008 at 10:27 am
 Great tip, I've ordered some!

Mike626 says:

July 23, 2008 at 11:36 am

Marta, I took a look at the Skin Actives site. The prospect of formulating my own products is compelling. I'm wondering, with your knowledge and clinical eye, why do you purchase any ready-to-use products at all?

It seems that armed with a site like Skin Actives, you would be able to make nearly all of the products you use for less than half the price. Do you think that the quality of ready-made products are superior?

marta says:

July 23, 2008 at 3:04 pm

You know until recently I wouldn't have had enough knowledge or certainly the confidence to mix my own potions. One of the attractions about DIY is not just what you can put in, but all the crap you can choose to leave out. So, I am now

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EXHIBIT O



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Apr 22, 2011

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TM108

ATTORNEY REFERENCE NUMBER:

Dieguez Garbayo,Pedro Calle Orense n° 10, 1° Of. 12 E-28020 Madrid SPAIN

SERIAL NUMBER:

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- * A SIGNED STATEMENT BY SOMEONE WITH FIRST HAND KNOWLEDGE OF THE FACTS THAT THE DELAY IN RESPONDING BY THE DUE DATE WAS "UNINTENTIONAL";
- * A PETITION FEE OF \$100, MADE PAYABLE TO THE COMMISSIONER OF TRADEMARKS; AND
- * A RESPONSE TO THE OFFICE ACTION (IF YOU RECEIVED THE OFFICE ACTION OTHERWISE, A STATEMENT THAT YOU DID NOT RECEIVE THE OFFICE ACTION.)

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EXHIBIT P

EXHIBIT P

Ferulic acid

From Wikipedia, the free encyclopedia

Ferulic acid is a

hydroxycinnamic acid, a type of organic compound. It is an abundant phenolic phytochemical found in plant cell wall components such as arabinoxylans as covalent side chains. It is related to trans-cinnamic acid. As a component of lignin, ferulic acid is a precursor in the manufacture of other aromatic compounds. The ctymology is from the genus Ferula, referring to the giant fennel (Ferula communis).



Names

IUPAC name

(E)-3-(4-hydroxy-3-methoxy-phenyl)prop-2-enoic

Other names

2-propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-

ferulic acid

3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid

3-(4-hydroxy-3-methoxyphenyl)acrylic acid

3-methoxy-4-hydroxycinnamic acid

4-hydroxy-3-methoxycinnamic acid

(2E)-3-(4-hydroxy-3-methoxyphenyl)-2-propenoic

acid

Ferulate

Coniferic acid

trans-ferulic acid

(E)-ferulic acid

Identifiers

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CAS	1135-24-6
Number	(http://www.commonchemistry.org/ChemicalDetail.aspx?
	ref=1135-24-6) *
3D model	Interactive image
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 2.1 Biosynthesis CID (https://pubchem.ncbi.nlm.nih.gov/compound/445858) 2.2 Biodegradation
■ 3 Ecology InChl
 4 Extraction SMILES 5 Bio-medical considerations
• 6 Other applications Properties
 6.1 As a precursor to remillin C₁₀H₁₀O₄ 6.2 Mass spectrometry mula
■ 6.3 Bitterness mask@lolar mass 194.18 g/mol
■ 7 See also Appearance Crystalline Powder
■ 8 References Melting 168 to 172 °C (334 to 342 °F; 441 to 445 K)
Occurrence in Solubility in 0.78 g/L ^[1] water
nature Acidity 4.61 ^[1]
As a building block of (pK_a)
lignocelluloses, such as pectin
and lignin, ferulic acid is ubiquitous in the plant kingdom.
In food Except where otherwise noted, data are given for materials in their standard state (at 25 °C [77 °F], 100 kPa).
Ferulic acid is found in the
seeds of coffee, apple, artichoke, peanut, and orange, as well as in both seeds and

cell walls of commelinid plants (such as rice, wheat, oats, the Chinese water chestnut (*Eleocharis dulcis*) and pineapple). Often in the form of **chlorogenic acid**.

In cereals, ferulic acid is localized in the bran the hard outer layer of grain. In wheat, phenolic compounds are mainly found in the form of insoluble bound ferulic acid and be relevant to resistance to wheat fungal diseases. ^[3] The highest known concentration of ferulic acid glucoside has been found in flaxsced $(4.1 \pm 0.2 \text{ g/kg})$. ^[4] It is also found in barley grain. ^[5]

Asterid eudicot plants can also produce ferulic acid. The tea brewed from the leaves of yacón (*Smallanthus sonchifolius*), a plant traditionally grown in the northern and central Andes, contains quantities of ferulic acid. In legumes, the white bean variety navy bean is the richest source of ferulic acid among the common bean (*Phaseolus vulgaris*) varieties. [6] It is also found in horse grams (*Macrotyloma uniflorum*).[7]

Although there are many sources of ferulic acid in nature, its bioavailability is limited based on the form in which it is present, with free ferulic acid having a poor water solubility hence poor bioavailability. In wheat grain, ferulic acid is found bound to cell wall polysaccharides, which has an effect on its release and absorption in the small intestine. [8]

In herbal medicines

Ferulic acid has been identified in Chinese medicine herbs such as *Angelica sinensis* (female ginseng), *Cimicifuga heracleifolia*^[9] and *Ligusticum chuangxiong*. It is also found in the tea brewed from the European centaury (*Centaurium erythraea*), a plant used as a medical herb in many parts of Europe, ^[10]

In processed foods

Cooked sweetcorn releases increased levels of ferulic acid.^[11] As plant sterol esters, this compound is naturally found in rice bran oil, a popular cooking oil in several Asian countries.^[12]

Ferulic acid glucoside can be found in commercial breads containing flaxseed.^[13] Rye bread contains ferulic acid dehydrodimers.^[14]

Metabolism

In plants, ferufic acid (right) is derived from phenylalanine, which is converted to

4-hydroxycinnamic acid (left) and then caffeic acid.

Biosynthesis

Biosynthesis of ferulic acid is by the action of the enzyme caffeate *O*-methyltransferase.^[15] It is biosynthesized from caffeic acid.

Ferulic acid, together with dihydroferulic acid, is a component of lignocellulose, serving to crosslink the lignin and polysaccharides, thereby conferring rigidity to the cell walls.^[16]

It is an intermediate in the synthesis of monolignols, i.e., the monomers of lignin, and is also used for the synthesis of lignans.

Biodegradation

https://en.wikipedia.org/wiki/Ferulic_acid

9/4/2017

Ferulic acid is converted by certain strains of yeast, notably strains used in brewing of wheat beers, such as *Saccharomyces delbrueckii* (*Torulaspora delbrueckii*), to 4-vinyl guaiacol (2-methoxy-4-vinylphenol) which gives beers such as Weissbier and Wit their distinctive "clove" flavour. *Saccharomyces cerevisiae* (dry baker's yeast) and *Pseudomonas fluorescens* are also able to convert trans-ferulic acid into 2-methoxy-4-vinylphenol. ^[17] In *P. fluorescens*, a ferulic acid decarboxylase has been isolated. ^[18]

Ecology

Ferulic acid is one of the possible plant compounds that initiate Agrobacterium tumefaciens to infect plant cells.

Extraction

It can be extracted from wheat bran and maize bran using concentrated alkali. [19]

Bio-medical considerations

Ferulic acid, like many natural phenols, is an antioxidant in vitro in the sense that it is reactive toward free radicals such as reactive oxygen species (ROS). ROS and free radicals are implicated in DNA damage, cancer, and accelerated cell aging. Animal studies and in vitro studies suggest that ferulic acid may have direct antitumor activity against breast cancer^[20] and liver cancer. Ferulic acid may have pro-apoptotic effects in cancer cells, thereby leading to their destruction. Ferulic acid may be effective at preventing cancer induced by exposure to the carcinogenic compounds benzopyrene and 4-nitroquinoline 1-oxide. Note that these are not randomized controlled trials



UV -visible spectrum of ferulic acid, with λ_{max} at 321 nm and a shoulder at 278 nm

done with human participants, and therefore, the results of these studies may not be directly applicable to human use.

If added to a topical preparation of ascorbie acid and vitamin E, ferulic acid may reduce oxidative stress and formation of thymine dimers in skin. [24] There is also a small amount of research showing oral supplements of ferulic acid can inhibit melanin production in the process of skin whitening. [25]

Other applications

As a precursor to vanillin

Ferulic acid, being highly abundant, may be useful as a precursor in the manufacturing of vanillin, a synthetic flavoring agent often used in place of natural vanilla extract. [26] However, biotechnological processes may be the most efficient method to use ferulic acid as a precursor, [27] and as such, research is still ongoing.

Mass spectrometry

It is used as a matrix for proteins in MALDI mass spectrometry analyses.^[28]

Bitterness masker

Kraft Foods has patented the use of sodium ferulate to mask the bitter aftertaste of the artificial sweetener acesulfame potassium. [29]

See also

- · Caffeic acid
- · Coumaric acid
- Diferulic acids
- Eugenol
- Isoferulic acid, an isomer of ferulic acid

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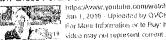
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