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(54) Title: LYOPHILIZED NATIVE COLLAGEN SHEETS COMPRISING COSMETIC FORMULATIONS FOR THE TREATMENT OF COUPEROSE

(57) Abstract

Lyophilized native collagen sheets containing a formulation for the treatment of couperose, comprising one or more of the substances selected from horse-chestnut extract, goldenseal extract, rutine, hirudine, nicotinamide, aescine, ascorbic acid.

+ DESIGNATIONS OF "SU"

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LYOPHILIZED NATIVE COLLAGEN SHEETS COMPRISING COSMETIC
FORMULATIONS FOR THE TREATMENT OF COUPEROSE

The present invention concerns lyophilized native collagen sheets containing cosmetic formulations useful for the treatment of a skin aesthetic problem known as couperose.

5 Couperose is a reddening condition of the face skin due to impaired venous cutaneous microcirculation. The conventional cosmetic treatments of couperose, even though functional, do not give results comparable to those obtained with the topical administration of
10 specific substances lyophilized in the form of a sheet together with the native collagen.

The use of lyophilized native collagen is very common in cosmetics for the treatment of wrinkles, stretch marks or other aesthetic problems of the skin.

15 It has now been found, and it is the object of the present invention, that lyophilized native collagen sheets containing special active ingredients can be advantageously used for the treatment of couperose. The active ingredients that can be used according to the
20 present invention preferably include horse-chestnut extracts, goldenseal extracts, rutine, hirudine, ascorbic acid. However, other active principles of natural or synthetic origin can be used, endowed with properties equivalent or similar to those of the
25 mentioned substances, or having anyhow an activity which is considered useful for the treatment of couperose.

Horse-chestnut and goldenseal extracts are known

for their anti-essudative and anti-oedematous properties. Rutine is known for its anti-spasmodic and capillary-protecting activity. Hirudine, the anti-coagulant principle of leech's saliva (Hirudo
5 medicinalis) exerts a regenerative and tonic action on the capillary walls, and it is endowed with anti-inflammatory properties. Nicotinamide is an essential element in many cellular processes, whereas ascorbic acid is known for its anti-oxidizing and anti-free
10 radical properties. Finally, aescine is the active ingredient of horse-chestnut extract and it is known for its anti-oedematous and capillary-protective properties.

According to the invention, these substances will
15 be used, preferably but not necessarily, in combination, in order to reach a special effectiveness of cosmetic treatment. The collagen sheet according to the invention can be obtained according to conventional techniques, by lyophilizing native collagen in the
20 presence of said substances.

Native collagen sheets and their preparation are described in US 4412947, EP 0284789, FR 2328786.

The collagen sheets of the present invention can contain from about 0.1% to 20% in weight of the above
25 mentioned substances; the collagen sheets will preferably contain from 0.1 to 5% of horse-chestnut of goldenseal extract, from 0.1 to 2% of rutine; from 1 to 10% of hirudine; from 0.1 to 3% of nicotinamide; from 0.1 to 5% of ascorbic acid; from 0.1 to 5% of aescine.
30 More preferably, the collagen sheets according to the invention will contain from 1 to 3% of horse-chestnut

and goldenseal extract; from 0.2 to 1% of rutine; from 0.5 to 1.5% of aescine; from 0.5 to 2% of nicotinamide; from 1 to 3% of hirudine; from 0.5 to 2% of ascorbic acid.

5 The collagen sheets according to the invention, when applied daily in the form of a mask, or on alternate day for 10-15 consecutive days, allow a specific and functional treatment of couperose, allowing individual and objective results definitely
10 better than conventional treatments. A quantitative composition of a collagen sheet according to the present invention is reported hereinbelow by way of example.

EXAMPLE

15	<u>Formulation</u>	
	native collagen	61.00
	collagen support	10.00
	hirudine polypeptides	2.50
	ascorbic acid	1.00
20	horse-chestnut glycole extract	1.50
	goldenseal fluid extract (ED = 1.25:1)	2.00
	rutine	0.50
	aescine	0.80
25	nicotinamide	0.70
		80.00
	Carrier	20.00
30		100.00

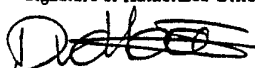
CLAIMS

1. Lyophilized native collagen sheets containing a formulation for the treatment of couperose, comprising
5 one or more of the substances selected from horse-
chestnut extract, goldenseal extract, rutine,
hirudine, nicotinamide, aescine, ascorbic acid.
2. Collagen sheets according to claim 1, containing
from 0.1 to 20% of said substances.
- 10 3. Collagen sheets according to claim 1 or 2, wherein
horse-chestnut and goldenseal extracts are present in a
concentration ranging from 0.1 to 5%; rutine in a
concentration ranging from 0.1 to 2%; hirudine in a
concentration ranging from 1 to 10%; nicotinamide in a
15 concentration ranging from 0.1 to 3%; aescine in a
concentration ranging from 0.1 to 5%; ascorbic acid in
a concentration ranging from 1 to 5%.
4. Collagen sheets according to claim 1, wherein
horse-chestnut and goldenseal extracts are present in a
20 concentration of 1.5 and 2%, respectively; rutine in a
concentration of 0.5%; hirudine in a concentration of
2.5%; nicotinamide in a concentration of 0.7%; aescine
in a concentration of 0.8%; ascorbic acid in a
concentration of 1%.
- 25 5. Native collagen mixed with biocompatible
substances of natural or synthetic origin for cosmetic
use.
6. Collagen according to claim 5 in the form of
lyophilized sheets having a thickness from 0.5 to 5 mm.

INTERNATIONAL SEARCH REPORT

International Applicatio

PCT/EP 91/01404

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC Int.Cl.5 A 61 K 7/48		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int.Cl.5	A 61 K	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
(This area is left blank in the original document)		
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹		
Category ^o	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
A	EP,A,0094285 (SANOFI) 16 November 1983, see claims ----	1
A	US,A,4412947 (G. CIOCA) 1 November 1983, see the whole document -----	1
(This area is left blank in the original document)		
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IV. CERTIFICATION		
Date of the Actual Completion of the International Search 31-10-1991	Date of Mailing of this International Search Report 21. 11. 91	
International Searching Authority EUROPEAN PATENT OFFICE	Signature of Authorized Officer  Daniëlle van der Haas	

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

EP 9101404
SA 49685

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 14/11/91. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A- 0094285	16-11-83	FR-A- 2526314	10-11-83
US-A- 4412947	01-11-83	US-A- 4279812	21-07-81
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