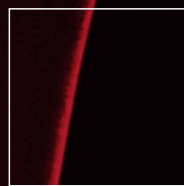


Moisturizing Marine
Micropatch™



Beauty Care Solutions

 **BASF**

The Chemical Company

Moisturizing Marine Micropatch™

REF

ACOT966S

DESCRIPTION

Hydrosoluble solution of a marine collagen alginate serine complex.

REGULATORY DATA

INCI Water, Butylene Glycol, Algin, Sodium Citrate, Atelocollagen, Serine.

Japanese Cosmetic

Denomination Mizu (1370), BG (100040), Arugin san Na (1039), Kuen San Na (1219), Aterokoragen (555027), Serin (3615).

CAS# 7732-18-5, 107-88-0, 9005-38-3, 68-04-2, 9007-34-5, 56-45-1.

EINECS# 231-791-2, 203-529-7, 232-680-1, 200-675-3, 232-697-4, 200-274-3.

ORIGIN

Patch based on marine collagen, sodium alginate (vegetal origin) and serine (biotechnologic origin).

FORMULATION DATA

Cosmetic properties

- Long-lasting hydration,
- Anti-drying action.

Applications

- Lasting face and body hydration care,
- Mature skin hydration care.

Concentration of use

1 to 5%

Incorporation method

Add at the end of the formulation at 30°C under planetary stirring.

PATENT

Cf. page 6

A new generation of long lasting hydration

Bring water to the skin? moisturizing molecules? How to make this action last **all day long**?

The moisturizer has to come in direct contact with the skin immediately, and then be slowly released into the skin during all the required activity.

Micropatch™ Molecular vector is an original technology that allows to match this activity, and to perform a **long lasting hydration**.

Marine Moisturizing Micropatch™: the molecular patch for hydration

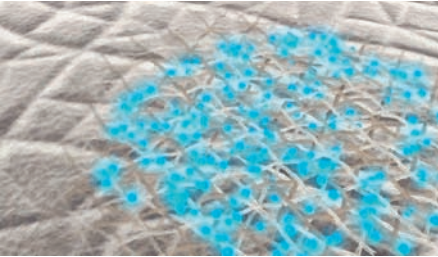
An exclusive technology

Marine Moisturizing Micropatch™ is a patch made of an organized network of **macromolecules (collagen and alginate)**, which contains a moisturizing molecule, **serine**.

The collagen and alginate network, once applied on the skin, **slowly releases** the **serine** molecules, qui penetrate into the epidermis for hydration. The serine concentration is optimal at all times, and the skin is **hydrated for long**.

Micropatch™ technology

Molecular patch for a long lasting effect



Micropatch™ on the skin

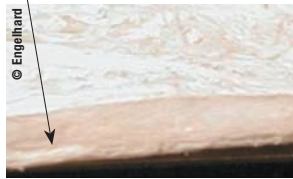
Visualization

Macroscopy

Spatial arrangement
of macromolecules



Upper face



Cross section

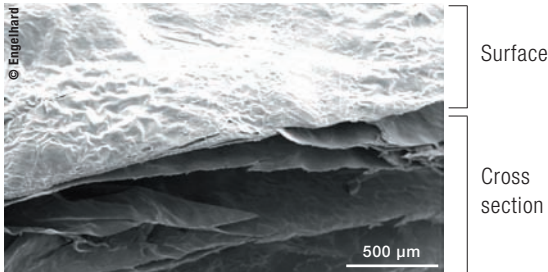
Freeze-dried marine Micropatch™

Optical microscopy



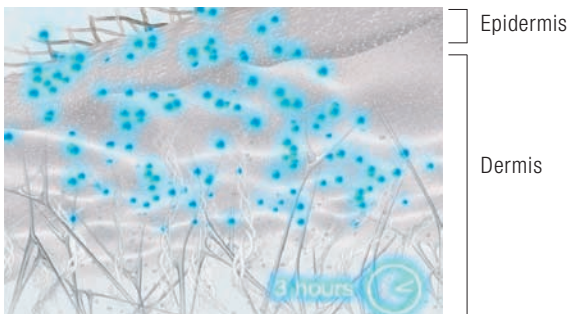
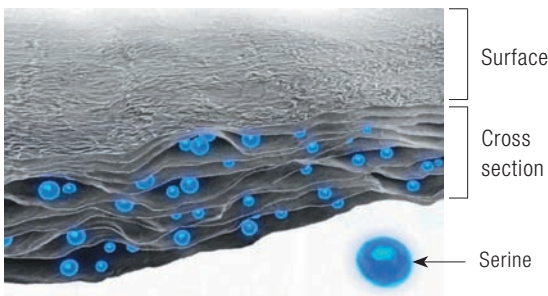
Pure marine Micropatch™ after freeze drying
[magnification x2.5]

Electronic microscopy



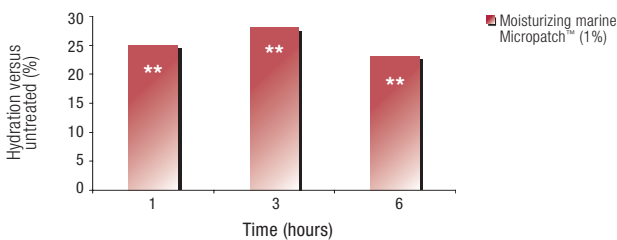
Freeze dried marine Micropatch™

Moisturizing marine Micropatch™ rich in serine for a long lasting hydration



Slow release of the hydrating serine into the skin.

Long lasting moisturizing hydration



** statistically different from the control ($p < 0.01$)

IN VIVO STUDY

On a panel of 20 volunteers, application on the forearm.

- Application of a formula containing moisturizing marine Micropatch™ (1%), versus a non-treated zone,
- Measurements using a corneometer after 1 hour, 3 hours and 6 hours.

A solution easy to use



Marine Micropatch™

Analytical data

Final specifications

Dry weight (15 hours, 105°C)

2.0 – 5.0

Total Inorganic Matter Content (15 hours, 600°C)

0.0 – 2.0

Hydroxyproline Content

0.04 – 0.08

Collagen Content (hydroxyproline x 9.37)

0.37 – 0.75

Beginning of denaturation (°C)

(23 – 29)°C

End of denaturation (°C)

(33 – 40)°C

Differential Scanning Calorimetry (J/mg)

$> 0.4 \cdot 10^{-2}$

Serine Content

0.75 – 1.1

Appearance

Opaque gel

Color

Yellow greenish

Odor

Characteristic

pH (Direct)

6.0 – 7.0

Viscosity (Brookfield RVDV-II) (05;20)

(2 000 – 20 000) cps

Aerobic bacteria (30°C)

$\leq 100/g$

Pathogens

None

Preservatives/Additives

Methylparaben (0.1 – 1%).

Patent

DEVICTOR P., ALLARD R., PERRIER E., HUC A.

Unpigmented fish skin, particularly from flat fish, a novel industrial source of collagen, extraction method, collagen and biomaterial thereby obtained.

(France: FR 2 678 624), (Europe: EP 0 592 586), (Canada: pending), (USA: US 5 420 248), (Japan: JP 2 722 014).

ALLARD R., ABDUL MALAK N., HUC A.

Collagen product containing collagen of marine origin with a low odor and preferably with improved mechanical properties, and its use in the form of cosmetic or pharmaceutical composition or products.

France (FR 00 06190), Germany (pending), USA (pending), Korea (pending), Italy (pending), Japan (JP 3 327 540).

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