

Rebalances your Microbiota for healthier and more homogenous complexion

### **MICROBIOTA**

# Love your Skin Microbiota! It makes your skin Healthy

Skin microbiota defines all the micro-organisms living on skin surface. It is determined from birth, it ensures skin's health, its homeostasis, and also its beauty.

Microbiota communities on the skin contribute to host immune defense through a variety of mechanisms:

## INHIBIT PATHOGEN GROWTH

Occupy space and nutrients
Produce bactericidal compounds

## EDUCATE ADAPTIVE IMMUNITY

Tune local cytokine production.
Influence lymphocytes in epidermis.

## ENHANCE INNATE IMMUNITY

Increase anti-microbial peptides production. Decrease inflammatory injury. Strengthen epidermal barrier.

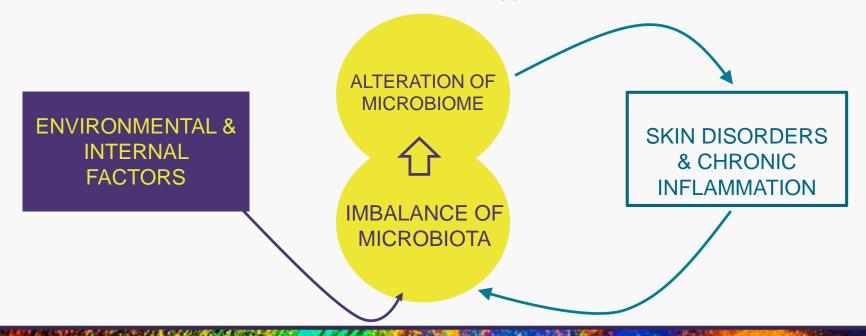


#### **MICROBIOTA**

# Love your Microbiota! It is fragile.

Every day, exposed to UVs, pollution or even stress, microbiota balance is threatened and can disrupt, leading to dysbiosis and skin disorders.

An imbalance of microorganisms (called dysbiosis) exists in numerous pathologies, these results have presented a sort of "chicken-or-the-egg" type story.



## Codif has studied the impact of our lifestyle on skin microbiota.

Carrier, children, family, friends...

There are days when life becomes really hectic.

Your complexion is more dull, redness appear.

What happens exactly on the surface of your skin?

3 groups of volunteers aged between 20 and 44 have been studied:

22 volunteers identified "without hectic lifestyle"

30 volunteers identified "with temporary hectic lifestyle", applying a placebo twice daily for 1 week

30 volunteers identified "with temporary hectic lifestyle", applying 1% Actibiome PE twice daily for 1 week

Sampling of skin microflora on the cheek Analysis of the full microbiota print of each volunteer (full DNA analysis) Analysis of differences between hectic and non hectic volunteers.





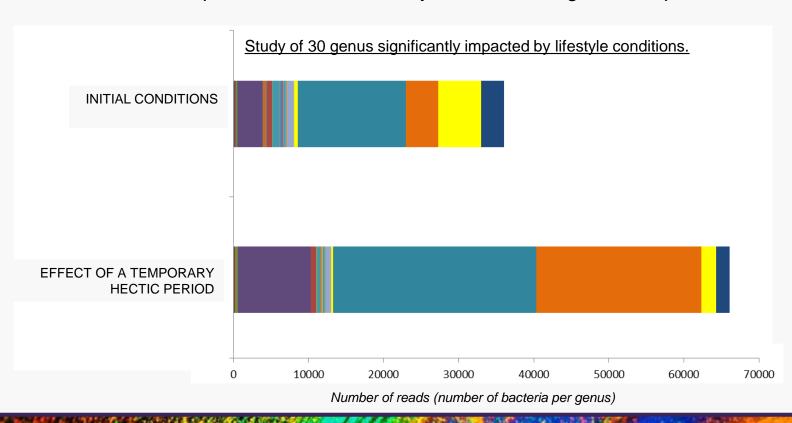




# OUR FRAGILE MICROBIOTA When life becomes temporary hectic, skin microbiota is dysbalanced

INVESTI-GATION

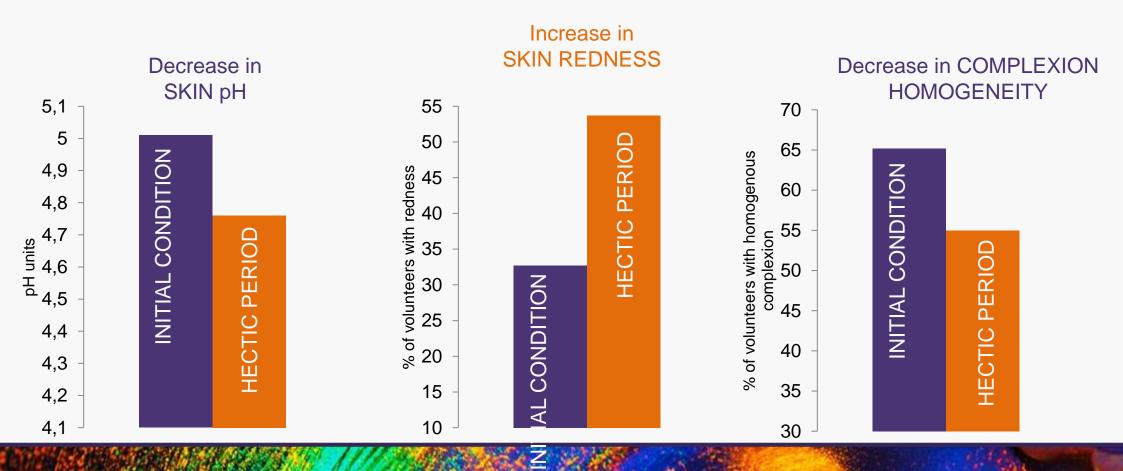
The microbiota print of the skin is totally different during a hectic period.



Actinobacillus Actinomyces Anaerococcus ■ Bacillus ■ Corynebacterium Deinococcus Dialister ■ Enhydrobacter ■ Finegoldia ■ Gardnerella Haemophilus Kingella Klebsiella Lactobacillus Lactococcus Leptotrichia Micrococcus Moraxella Paracoccus Peptoniphilus ■ Photobacterium Prevotella Propionibacterium Rhodobacter Selenomonas Staphylococcus unclassified

■ Vitreoscilla

# OUR FRAGILE MICROBIOTA Imbalance of microbiota is coupled with the apparition of skin disorders.

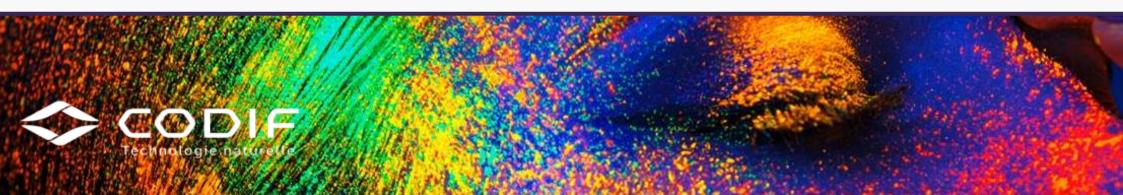




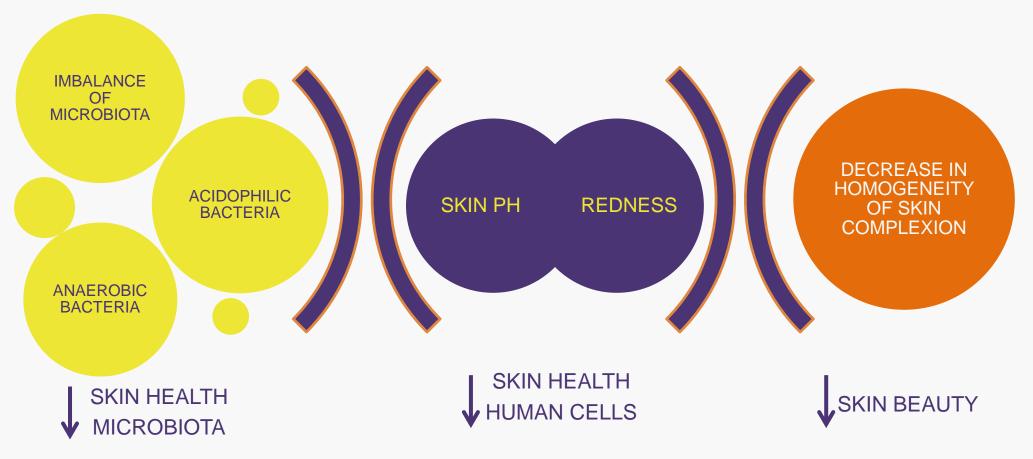
## OUR FRAGILE MICROBIOTA What happens exactly on skin surface?

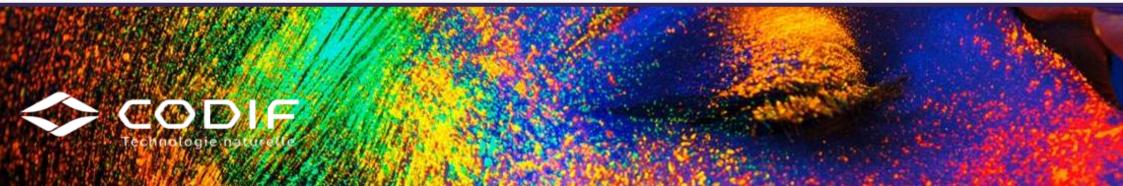
A hectic period also impacts microbiota <u>diversity</u>. Some genus are increased while others are disappearing. This dysbalance is mainly characterized by:

An increase of anaerobic bacteria potentially pathogenic					
Finegoldia	Anaerobic and potentially pathogenic for the skin	Development of symptoms linked to the activation of skin defenses systems:  INFLAMMATION / REDNESS			
Peptoniphilus	Aanaerobic, can lead to infections				
Dialister	Anaerobic, can lead to infections				
Gardnerella	Anaerobic, becomes pathogenic when associated with anaerobic flora				
An increase of acidophilic bacteria					
Lactobacillus	Produces lactic acid	ACIDIFICATION OF SKIN PH			
Lactococcus	Metabolizes sugars in lactic acid				
A decrease of protective bacteria					
Deinococcus	Resistance to UVs and gamma rays.	Development of symptoms linked to INFLAMMATION / HETEROGENITY OF THE COMPLEXION			



BUSY LIFE AND MICROBIOTA PRINT How a hectic day can impact skin's health & skin's beauty:





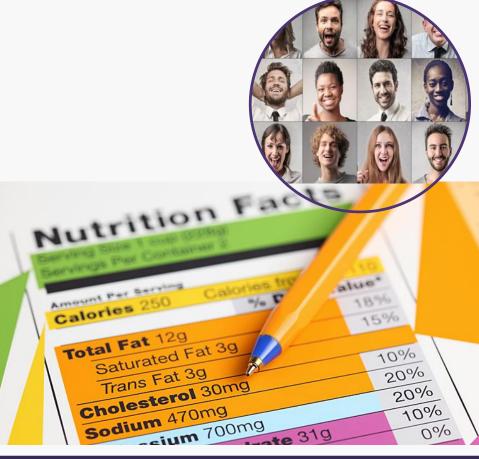
## **ACTIBIOME**

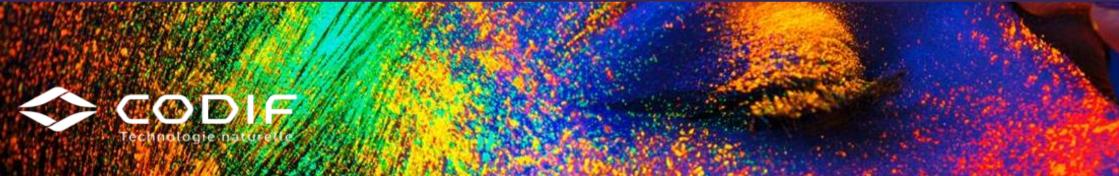
A HEALTHY & BALANCED DIET for your microbiota.

Whether we are unique, with different lifestyles, it is commonly admitted that:

We all need a healthy and balanced diet.

WHY NOT OUR MICROBIOTA?

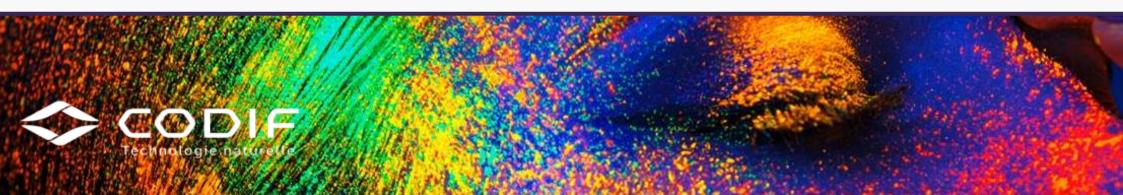




## ACTIBIOME Healthy & balanced composition

Actibiome is a combination of different components aimed to bring a variety of nutrients to ensure the biodiversity and homeostasis of the skin microbiota.

NUTRITION FACTS For 100g				
Brown seaweed extract  Sugars + Polyols	25g			
Green micro-alga extract  Amino acids + peptides	30g			
Marine ExoPolySaccharide Solution Polysaccharide	n 25g			
Earth Marine Water 20g  Minerals + trace-elements				



## **ACTIBIOME** Benefits of its composition for skin microbiota

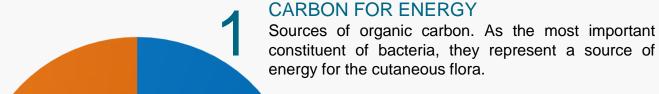
MINERALS FOR DIVERSITY

Minerals are involved in many metabolic pathways. This diversity of minerals allows the development of as many different species as possible, with conventional or more specific

nutritional needs.

POLYSACCHARIDES FOR COMMUNICATION AND PROTECTION

Exopolysaccharides are known for their involvement in intercellular communication and their protective properties against environmental stresses. They maintain stable environmental conditions by protecting bacteria against desiccation.



Sugars + **Polyols** 

Amino acids

+ peptides

Peptides of sizes between 200 and 3000 Daltons. A source of organic nitrogen that provides amino acids for bacterial growth and synthesis of proteins.

NITROGEN FOR GROWTH

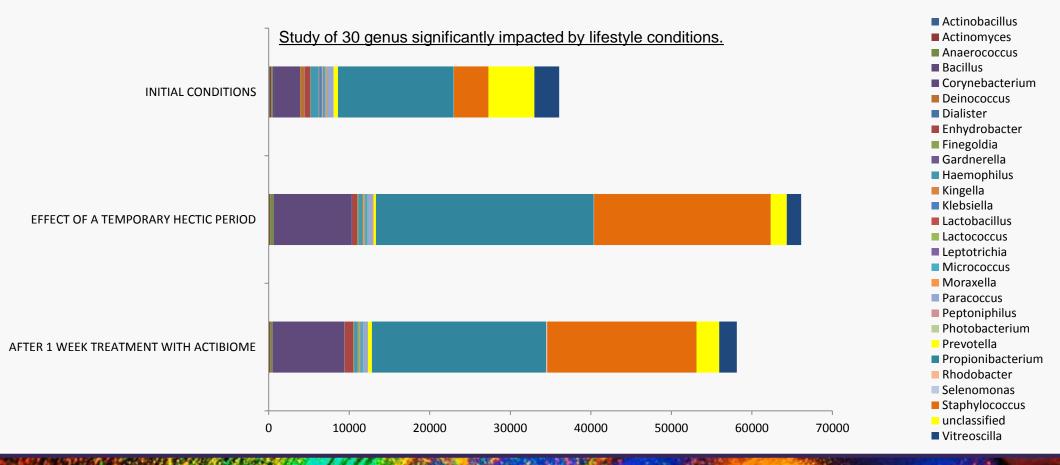
Minerals

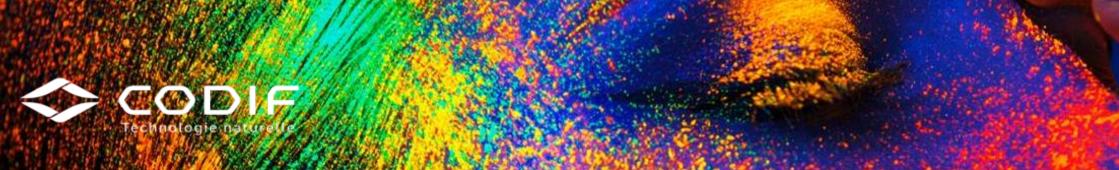
Poly-

saccharides

## Within 1 week, Actibiome reverses the dysbalance induced by a temporary hectic period

IN-VIVO 7D / 1% ACTIBIOME PE





IN-VIVO 7D / 1% ACTIBIOME PE

Actibiome reverses 65% of genus previously disbalanced by stress vs 35% for placebo; and thus reinforces microbiota diversity.

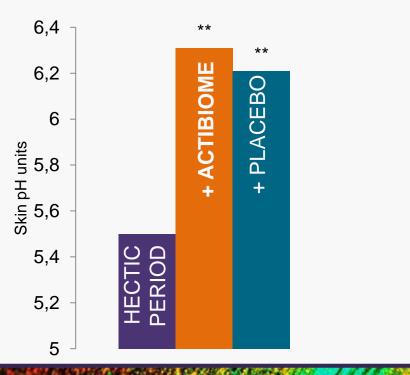
AMONG THEM:		EFFECT OF ACTIBIOME	EFFECT OF PLACEBO		
Genus increased by stress & potentially linked to inflammation					
Finegoldia	Anaerobic and potentially pathogenic for the skin	-30%	-36%		
Peptoniphilus	Aanaerobic, can lead to infections	-51%	-47%		
Dialister	Anaerobic, can lead to infections	-23%	0		
Gardnerella	Anaerobic, becomes pathogenic when associated with anaerobic flora	-40%	+133%		
Genus increased by stress & potentially linked to acidification of skin pH					
Lactobacillus	Produces lactic acid	-12%	-4%		
Lactococcus	Metabolizes sugars in lactic acid	-16%	+45%		
Genus decreased by stress & potentially linked to skin protection					
Deinococcus	Resistance to UVs.	+400%	+100%		

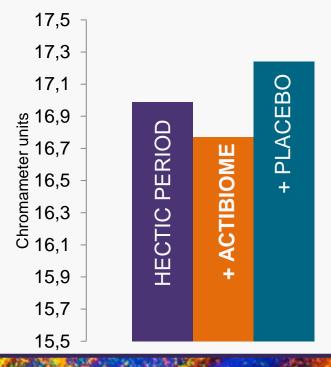


## After microbiota, physiological skin disorders are rebalanced within only 1 week.

Rebalances skin pH







**IN-VIVO** 7D / 1% **ACTIBIOME PE** 

#### **PROTOCOL**

Analysis of skin redness by chromameter, analysis of skin pH by pH meter.

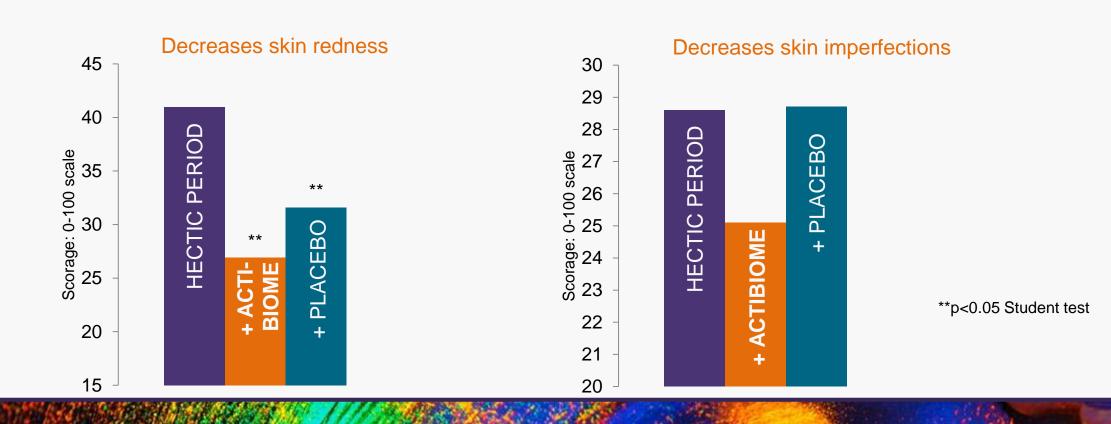
\*\*p<0.05 Student test



## IN-VIVO 7D / 1% ACTIBIOME PE

## Rebalances visible skin imperfections within 1 week

Scorage by specialized clinician using numeric scale.



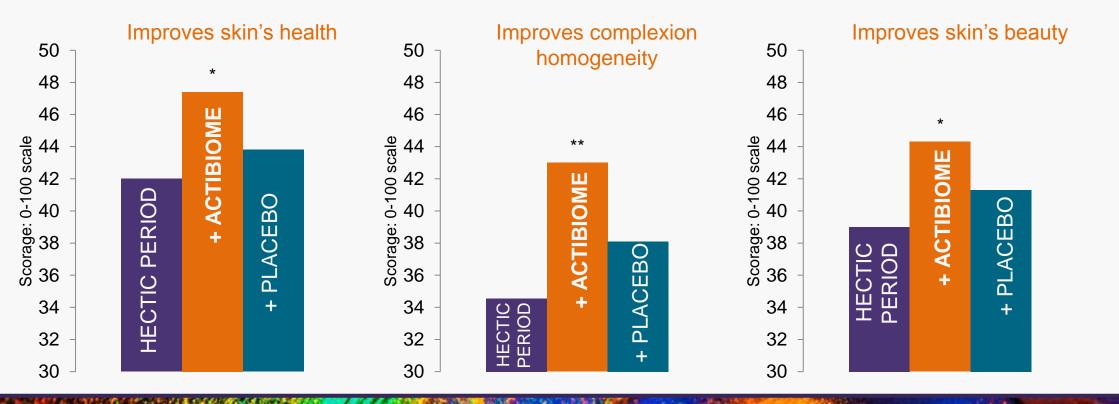


## Improves skin health & beauty within 1 week

IN-VIVO 7D / 1% ACTIBIOME PE

Volunteers self evaluation using numeric scale

\*p</= 0.1 Student test \*\*p<0.05 Student test



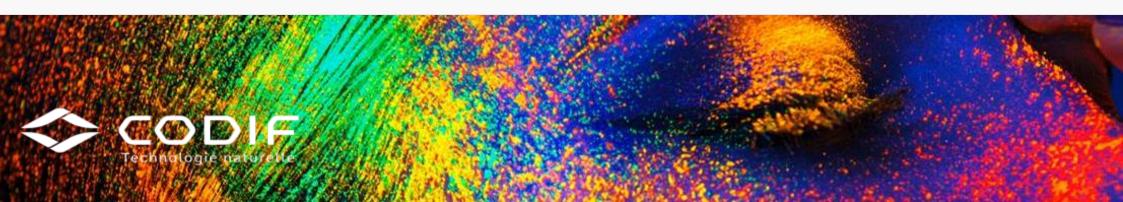


Your microbiota makes you unique!

It is one of the main contributors of your skin's health.

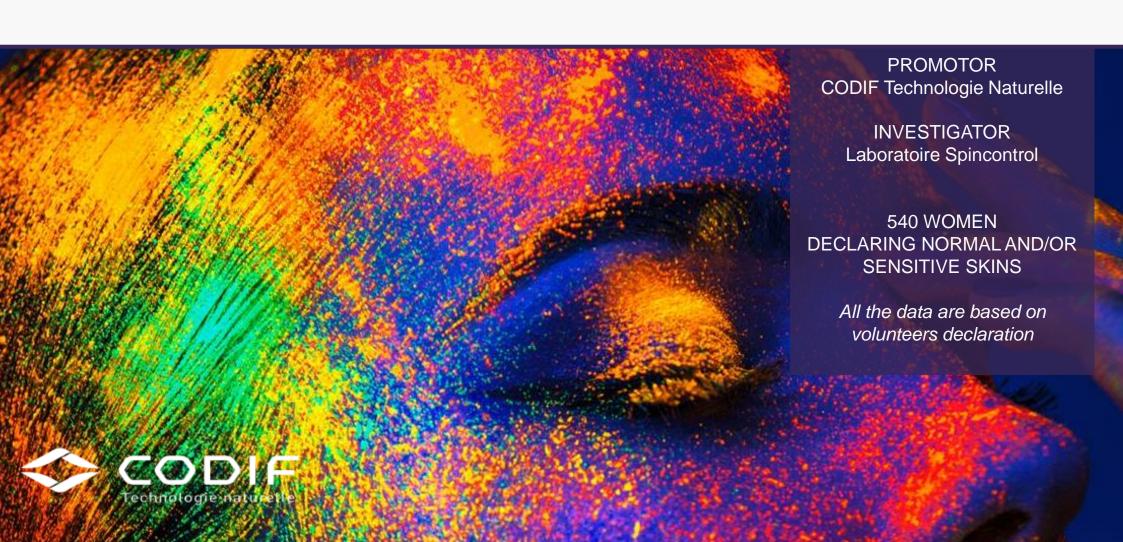
## And more than ever, HEALTH IS BEAUTY!

Did you know that 83% of consumers would be interested in using a cosmetic able to support skin's health?



# SKIN HEALTH SKIN BEAUTY SKIN MICROBIOTA

## Consumers Survey...





## Is skin's BEAUTY conditioned by skin's HEALTH?

### CODIF **SURVEY**

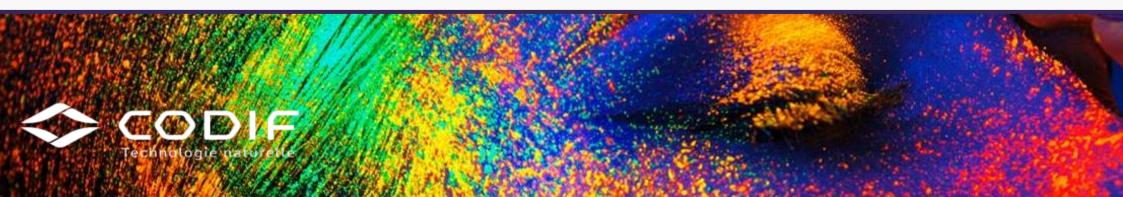
#### MARKET SURVEY

540 persons, 30-55 years, declaring having sensitive and/or normal skin. Study promoted by CODIF TN.

730/\* of consumers think that skin beauty depends on skin's health.

But although most of them daily use product for skin beauty, only 56% daily use products for skin health.

\*p<0.05 student test





# Interested in a cosmetic that daily supports skin's health?

## CODIF SURVEY

#### MARKET SURVEY

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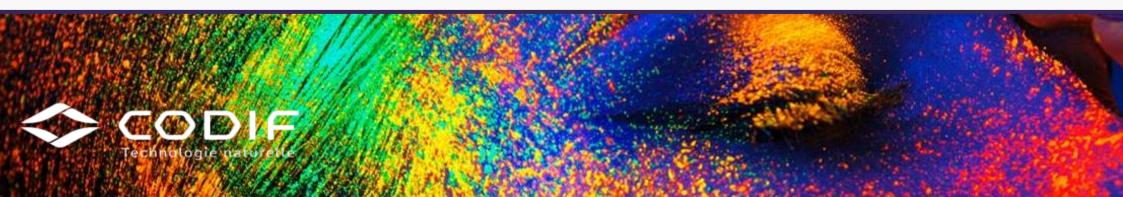
83%\*

of consumers would like to use a cosmetic able to maintain skin's health.

They consider that some skin disorders are directly linked to skin's health imbalance:

- Dull complexion for 71% of them
- Skin dehydration for 58% of them
- Skin redness for 35% of them

\*p<0.05 student test



## Are consumers ready for microbiota?

CODIF considers Microbiota as a vibrant actor and essential partner of skin's health. And consumers too!

After describing skin flora as micro-organisms living on skin surface, and promoting its homeostasis and protection:

93%\*

think that it plays major role in skin's **HEALTH** 

89%\*

think it plays major role in skin's **BEAUTY** 

**75%** 

think we should act by <u>FAVORING FLORA DIVERSITY</u> instead of promoting major species or eradicating less beneficial flora.

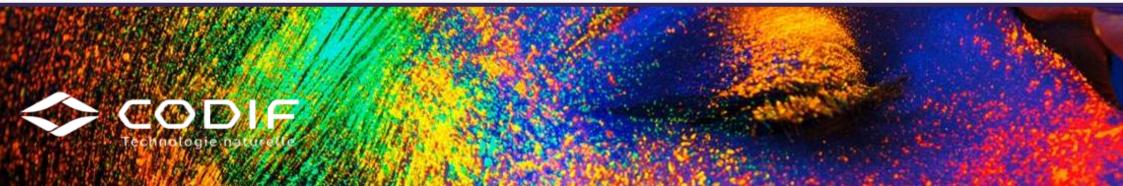
## CODIF SURVEY

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\*p<0.05 student test



## **ACTIBIOME - HOW TO USE?**

#### TO REINFORCE SKIN MICROBIOTA

Provides a healthy and balanced diet for skin microbiota Rebalances skin microbiota disturbed by busy lifestyle conditions

#### FOR A HEALTHIER COMPLEXION

Rebalances anaerobic and acidophilic bacteria potentially involved in skin inflammation Rebalances skin pH Improves skin health Improves complexion homogeneity

#### TO TREAT SKIN DISORDERS

Decreases skin redness Decreases skin imperfections Improves skin beauty

## FORMULATION RECOMMENDATIONS

Water soluble active ingredient to formulate up to 50°C. Formulation guide available on request

### **HOW TO USE**

### INCI

#### **ACTIBIOME PE**

Water (and) Seawater (and)
Glycerin (and) Laminaria digitata
extract (and) Chlorella vulgaris
extract (and) saccharide isomerate
(and) phenoxyethanol (and)
ethylhexylglycerin

#### **ACTIBIOME GPA**

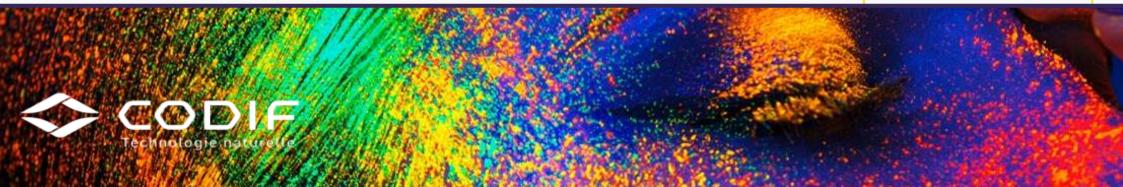
Glycerin (and) Water (and) Seawater (and) Laminaria digitata extract (and) Chlorella vulgaris extract (and) saccharide isomerate (and) **phenethylalcohol** 

% OF USE

ACTIBIOME PE: 1% ACTIBIOME GPA: 2%

**ECOCERT** & COSMOS

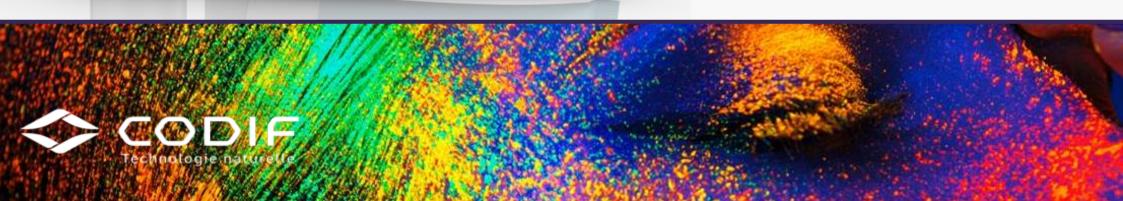
**GPA version APPROVED** 



## INDICATIVE FORMULA Bio-Balance



Phase	Raw material	INCI	%
А	DEMINERALIZED WATER	Aqua (water) / eau	85.63
В	ELESTAB CPN	Chlorphenesin	0.27
	DERMOFEEL PA-3	Sodium phytate & Aqua (water) / eau & Alcohol	0.10
С	LECIGEL	Sodium acrylates copolymer & Lecithin	2.00
D	CAPRYLIC/CAPRIC TG MB RSPO	Caprylic/capric triglyceride	5.00
	CETIOL SB 45	Butyrospermum parkii (shea) butter	5.00
	PHENOXYETHANOL	Phenoxyethanol	0.80
E	COVI-OX T90EU C	Tocopherol & Helianthus annuus (sunflower) seed oil	0.05
	ACTIBIOME PE	Aqua & Sea water & Glycerin & Laminaria digitata extract & Chlorella vulgaris extract & Saccharide isomerate & Phenoxyethanol & Ethylhexylglycerin	1.00
	FRAGRANCE	Fragrance	0.10
	NAOH SOLUTION NAOH 6.25N	Aqua (water) & Sodium hydroxide	0.05
			100.00



Healthy & balanced diet for skin microbiota.

It rebalances bacteria previously impacted by hectic life and reverses the effect of microbiota dysbiosis on skin pH, redness and complexion.

Within 1 week treatment, volunteers observe a global improvement of skin health and skin beauty.

### TO COMBINE WITH:

#### PHYCOSACCHARIDE AI:

To repair and sooth sensitive and damaged skins.

#### **HYDRASALINOL**:

To stimulate the synthesis of lipids that compose lipid cement and reinforce epidermis cohesion.

