

PHYCOSACCHARIDE Anti Pollution

Leave on your facial mask for a whole day of protection



CODIF

Technologie naturelle

PROTECTS YOUR SKIN FROM ENVIRONMENTAL FACTORS

SKIN IN THE
CITY

KEY FIGURES



are interested in soaps or bath/shower gels capable of protecting their skin from pollution.



are concerned about pollution. This directly affects the purchasing behavior of consumers, with 52% of this age group which are preferring products that can protect their skin.



perceive the environment as affecting the appearance of their hair. The anti-pollution claims are not only popular in Asia, but also worldwide.

PROTECTS YOUR SKIN FROM ENVIRONMENTAL FACTORS

SKIN IN THE
CITY

MARKET EVOLUTION

In 2015 the products marketed with a pollution claim represent 3% of skin care products, 1.2% for makeup and 0.9% for hair products.

Recent studies conducted by leader brands show how pollution accelerates skin ageing and especially in sensitive skins. Lately a clear link has been established between air pollution and the formation of dark spots.



Now your skin lives in a cleaner city.

New Derma White City Block helps keep pollution and sun out, and skin stays brighter, longer.

By adding an invisible pollution filter to our highest-level UVA/UVB daily protector, we aim to keep things spotless. Light, comfortable, yet helps skin keep out harmful pollutants. Potent antioxidants are standing by to clean up any undesirables. Brighteners, too. It's a great life for skin.

WHAT'S IN THE AIR THAT AFFECT YOUR SKIN

SKIN IN THE
CITY



NO_x
Polycyclic Aromatic Hydrocarbures
Volatil Organic Components
Ultra thin particles PM2.5
SO₂, CO
Heavy metals

PHYCOSACCHARIDE AP

To preserve your skin from urbanization damages, we have imagined a new generation of invisible facial mask.

OUR
SOLUTION



UNTIL NOW

Alginates were very well known in the composition of peel off mask. They give them texture, occlusive and moisturizing properties

FOR TOMORROW

CODIF have worked on the depolymerization of marine alginates using a specific marine enzyme.

THE RESULT?

A new generation of facial mask, totally invisible to protect your skin all day long

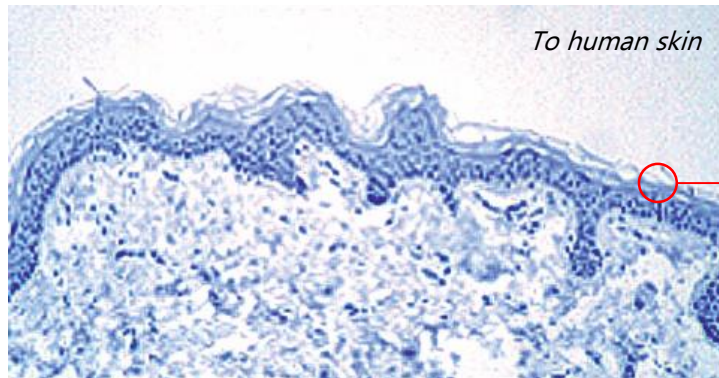
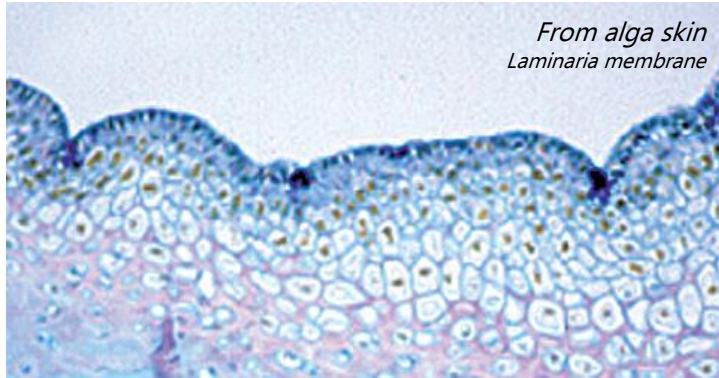


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PHYCOSACCHARIDE AP

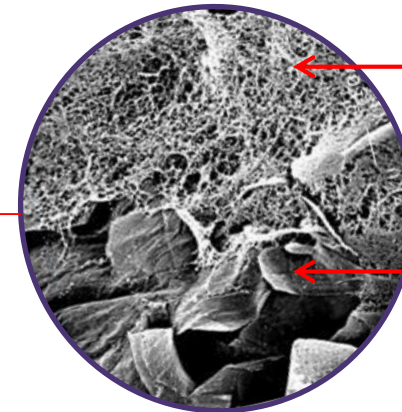
Obtained from « alga skin » to protect human skin

OUR
SOLUTION



Alginates from « alga skin » are depolymerized to obtain an oligoalginate of high molecular weight.

Applied on human skin, it remains on the surface of the epidermis to form an invisible mask.



White network
= oligoalginate

Skin surface

It works like a thin and invisible mask that catches impurities to avoid their penetration

HEAVY METALS

IN-TUBO TEST

Protection of the skin against heavy metals.

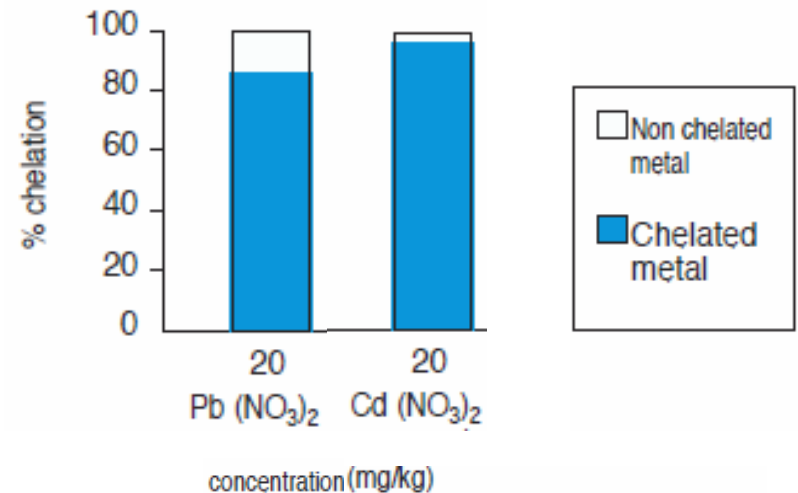
The epidermis can be attacked with heavy metals from the atmosphere (exhaust fumes, paint, factories, .) and in water.

Results

PHYCO AP catches (chelates) heavy metals like lead and cadmium.

Up to 80% chelation of lead

Up to 98% chelation of cadmium



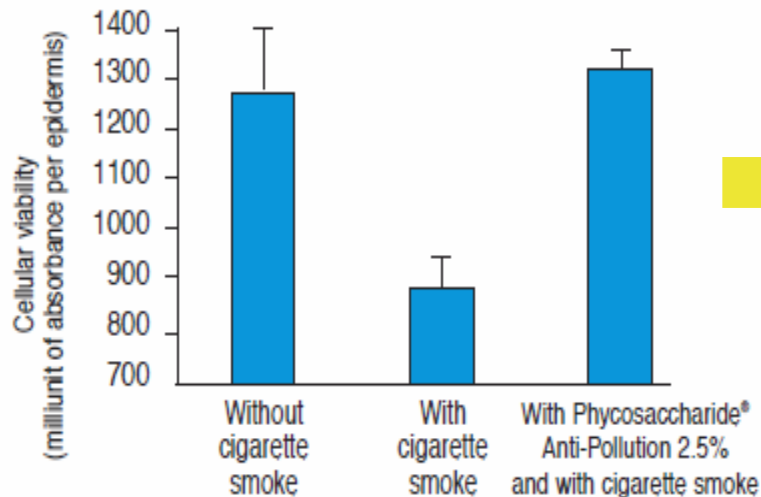
Your cells feel revival

EX-VIVO TEST: protection of the skin against tobacco smoke.

Tobacco smoke is responsible for a decrease in moisturizing and oxygenation levels, it produces free radicals and accentuates wrinkles.

CIGARETTE
SMOKES

Protocol:
Human reconstituted epidermis protected or not by Phycosaccharide AP at 2.5% and exposed to cigarette smoke during one hour.



100% protection of cellular viability

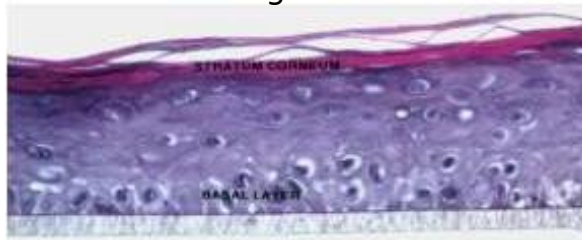
Your epidermis recovers its integrity

EX-VIVO TEST : protection of the skin against tobacco smoke.

CIGARETTE SMOKES

Protocol:
Human reconstituted epidermis protected or not by Phycosaccharide AP at 2.5% and exposed to cigarette smoke during one hour.

Without cigarette smokes



With cigarette smokes

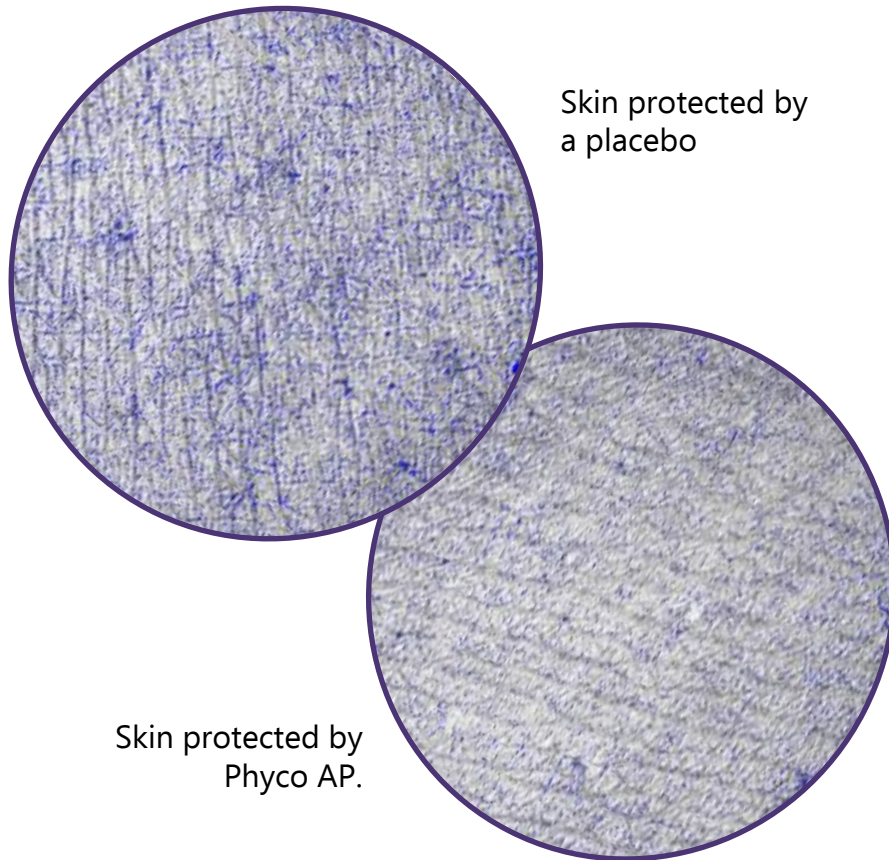


With PHYCO AP + cigarette smokes



100% protection of cellular viability

IN-VIVO TEST: once you remove it, you eliminate particles caught during the day



PARTICLES

Protocol:
application of 1% PHYCO APP on the forearm, application of iron oxide particles. Cleansing with water

Results

After cleansing, skin protected with Phyco AP presents **38% less particles** than skin treated with a placebo.

NEW

PHYCOSACCHARIDE AP EFFICACY

EFFICACY
TESTS

EXCLUSIVE WORK WITH REAL PM_{2.5} PARTICLES

Fine particles used for this study have been collected by the **Institute of Nuclear Physic** from Prague, in the atmosphere of urban area.

Fine particulate matter is then supplied by **National Institute of Standards & Technology**.

COMPOSITION

- 12 dioxins
- 25 Polycyclic aromatic hydrocarbons
- 2 Polybrominated Diphenyl Ether
- 8 metals

Average diameter closed to 2.5 μ m (max 4 μ m)

NIST

Date of Issue:
16 July 2014

SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

Product Identifier

SRM Number: 2786
SRM Name: Fine Particulate Matter (<4 μ m)
Other Means of Identification: Not applicable.

Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), nitro substituted PAHs (nitro PAHs), polybrominated diphenyl ether (PBDE) congeners, hexabromocyclododecane (HBCD) isomers, sugars, polychlorinated dibenzo-*p*-dioxin (PCDD) and dibenzofuran (PCDF) congeners, inorganic constituents, and particle size characteristics in atmospheric particulate material and similar matrices. All of the constituents for which certified, reference, and information values are provided are naturally present in the particulate matter. A unit of SRM 2786 consists of one bottle containing between 100 mg and 140 mg of particulate matter.

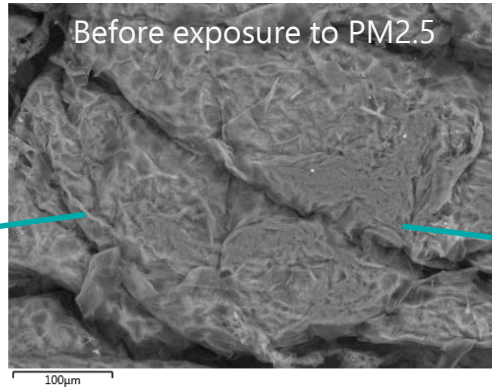
Company Information

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2300
Gaithersburg, Maryland 20899-2300

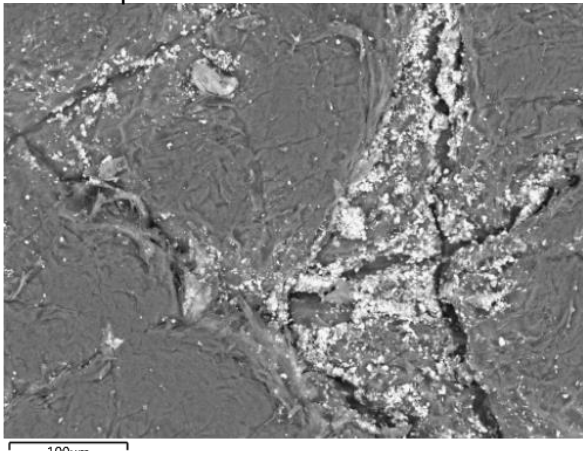
EX-VIVO TEST: It protects your skin against the adhesion of fine particles PM2.5.

PM 2.5 PARTICLES

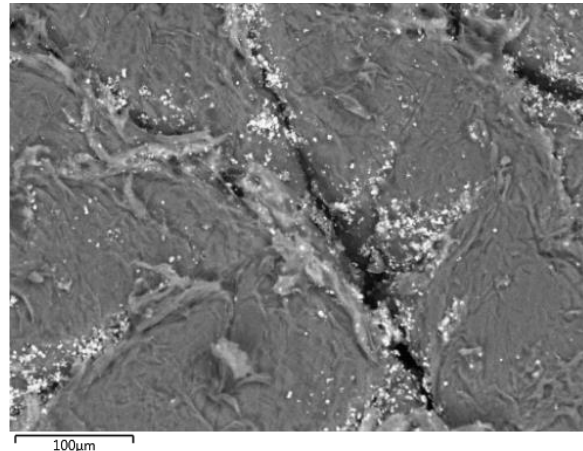
Protocol:
topical application of 1% PHYCO APP on human skin explant, application of fine particles. Cleansing with water. Observation using electronic microscope.



Without PHYCO AP.
PM2.5 particles in white



With PHYCO AP.
PM2.5 particles in white



PROTECTIVE EFFICACY

- 34%* iron particles
- 9% silicium particles
- 8% aluminium particles

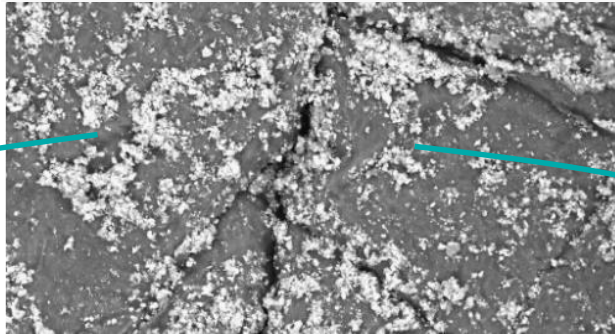
*p<0.05 student test

EX-VIVO TEST: it improves skin cleansing at the end of the day

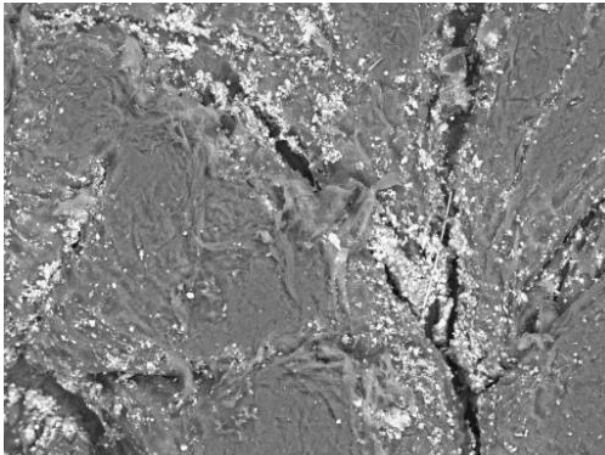
PM 2.5
PARTICLES

Protocol:
application of fine particles on human skin explant, cleansing with 1% PHYCO APP in water. Observation using electronic microscope

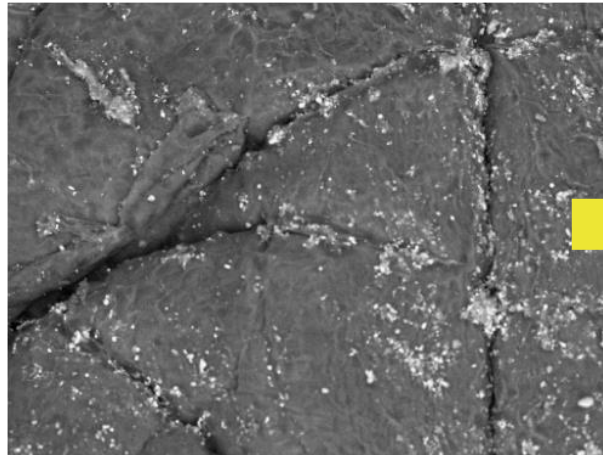
Before cleansing.
PM2.5 particle in white



Without PHYCO AP.



With PHYCO AP.



CLEANSING EFFICACY

-46%*** iron particles
-28%*** silicium particles
23%* aluminium particles

***p<0.001 student test

*p<0.05 student test

HOW TO USE?

IN A CITYDEFENSE LINE:

With **HYDRANOV**, a restructuring ingredient that protects the skin against dehydration induced by urbanization, or with **EPS WHITE** that decreases the number of pollution-induced dark spots.

IN ANTI-AGEING PROTECTIVE LINE

With **PHYCOJUVENINE**, an anti-wrinkle ingredient that promotes skin oxygenation, and **CITYGUARD+** that treat skin sagging accentuated by pollution.

IN SENSITIVE SKINS TREATMENT

With **PHYCOSACCHARIDE AI**, a soothing ingredient that decreases inflammation of sensitive skins.

FORMULATION RECOMENDANTIONS...

Hydrosoluble and non occlusive to formulate up to 50°C.

HOW TO USE

INCI

PHYCOSACCHARIDE
APP
Water (and) hydrolyzed algin
(and) phenoxyethanol

PHYCOSACCHARIDE
APG
Water (and) glycerin (and)
hydrolyzed algin

% OF USE

1% for APP version
2% for APG version

ECOCERT

PHYCOSACCHARIDE
APG is compliant

PHYCOSACCHARIDE Anti Pollution

Protects your skin against the adhesion of fine particles PM2.5 and improves their elimination in cleansing routine.

Protects the skin against heavy metals and cigarette smokes.

Preserves cellular viability and skin cohesion.



Leave on your facial mask for a whole day of protection