









POLLUTANTS FOCUS

Fine particles

This dust is mainly produced by road traffic and industrial activities. These particles' effect on the skin depend of their size: the smaller the particle is, the more they are susceptible to penetrate the organism. To be characterized as "fine particles", dust diameter must be smaller than 2,5 µm. In this case, they are more commonly named PM 2,5.

Heavy metals

Heavy metals naturally exist in small quantities in soils, water and atmospheric air. Human activities such as charcoal, petroleum combustion and some industrial processes are responsible for their diffusion in bigger quantities in the environment. Heavy metals are frequently linked to fine particles, which contribute to spreading them over long distances.

DERMATOLOGISTS AGREE ON THE FACT THAT 80 % OF OUR SKIN AGING IS DUE TO ENVIRONMENT FACTORS

(pollution, sun exposition...).

Age and genetics are only responsible for the remaining 20 %.

Cutaneous
aging is

10%
faster in urban areas
than in rural
areas²

SKIN POLLUTION DIAGNOSTIC:

External layers: mix of dry and oily areas Internal layers: oxidative stress and dehydration.

EFFECTS OF POLLUTION ON THE SKIN

Pollutants alter skin barrier. They degrade the hydrolipidic film that is naturally present at the skin surface, exposing our cells to fine particles damages. Consequently to pollution exposition, several signs of cutaneous unbalance can be detected:

Premature skin aging

Oxidative stress is closely linked to free radicals. These molecules are generated by our organism to protect himself from various aggressions (bacteria, virus, UV...).

When their presence in our cells becomes excessive, free radicals start damaging the skin by destroying its key components: collagen and elastin. This mechanism is one of the main cause to skin aging.

In contact with pollution, our cells trigger this defense system by leading to a surproduction of free radicals.

Impact on sebum quality and quantity

Two recent studies proved the negative effects of pollution on our skin. By comparing populations living in urban and rural areas, studies results showed that pollution contribute to:

- decrease in cutaneous pH3
- increase in sebum secretion and change in its composition. The sebum quality of the urban population is poorer and less protective than the sebum of the rural population⁴

Aggravation of cutaneous sensibility and reactivity

Harmful gas are responsible for skin inflammation: skin is irritated and reactive, because it suffers from dryness.





URBAN D-POLLUTION PEEL-OFF MASK COMPOSITION

In the frame of this pollution concern, our laboratory applied his know-how in order to develop Urban D-Pollution peel-off mask. A formula rich in complementary active ingredients, naturally efficient to catch pollutants.



Chlorella

Among the algae family, we have selected a specie that is well known for its natural detoxifying effect: chlorella.

Chlorella is a unicellular micro-algae living in sea or clear water. It differs from other plants by its exceptional chlorophyllconcentration. Moreover, the structure and composition of its cellular wall (tri-layer, rich in chitineand cellulose) allows it to catch and eliminate pollutants, especially heavy metals (Mercury, Arsenic, Lead...⁵.

Plant-based activated charcoal

Plant-based activated charcoal is a porous substance, mainly composed of carbon. It has a high gas and toxin absorption capacitywhich means that it captures toxic substances, to facilitate their elimination⁶.

High purity white clay

White clay is recognized for its purifying properties, its natural efficacy is linked to its chemical structure. In solution, clay catches positively charged molecules such as mineral salts and can exchange them once it gets in contact with the skin .

Clay remineralizesand detoxifies the epidermis by switching its mineral salts with toxins and impurities that lie at the skin surface.

We have selected a high purity clay, which concentrate mineral components the most adapted to catch impurities: bentonite.

Ginseng white root

Ginseng is originated from China and Korea, it has been part of the Chinese Traditional Medicine (CTM) Pharmacopoeia for morethan 2000 years.

It possesses re-equilibrating and stimulating properties, especially over the Qi, the "vital energy". It contributes to health and wellness.



PRESERVATIVE FREE - SURFACTANT FREE FRAGRANCE FREE - PIGMENT FREE













Classictexture 30g of powder 90 g of water Neutral

Darkgreen Pantone 5605C

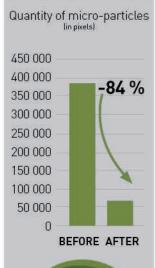
Dryingtime : 4-7 min Application time : 20 min Use 2 or 3 times

Chlorella Plant-based activated charcoal High purity white clay Ginseng white root





PROVEN EFFICACY



CUTANEOUS

Urban D-Pollution peel-off mask allow a smooth skin cleaning, without surfactants that can alter hydrolipidicfilm.

TIPS use our mask with warm water to dilate skin pores and help impurities extraction.

Clean the skin from fine particles

The use of Urban D-Pollution peel-off mask immediately removes 84 % of fine particles lying at the skin surface.

Purified and cleansed from pollution impurities, the skin is protected from the damages caused by fine particles.

BEFORE



AFTER

Hydrolipidic film rebalance

The hydrolipidicfilm balance is guaranteed by a natural and precise dosage between skin moisturizing (water) and sebum production (oil).

The Urban D-Pollution peel-off mask efficiency helps your skin to maintain this balance, thanks to its 2 complementary effects:

→ Effect on sebum

The Urban D-Pollution peel-off mask significantly increases cutaneous pH to fight against excessive sebum production.

pH tends to get closer to physiologic skin pH, countering imperfections apparition.

TEST PROTOCOL

- Application of fine particles representative of atmospheric air pollution: size around 1 µm
- Before and after mask application: measurement of fines particles quantity and cutaneous pH
 - Application time: 20 minutes
 - Population: 21 volunteers

→ Effect on hydration

The Urban D-Pollution peel-off mask benefits from peel-off technology which immediate hydration effect have been clinically proven.

The occlusive effect of Setalg classic peel-off texture allows cutaneous hydration increase by 74.6% after 20 minutes of application.

Please refer to the Setalg peel-off mask hydration effect clinical study and publication?.



www.nuwen.fr - contact@nuwen.fr

[1] Department of Economicand Social Affairs-Population Division, World UrbanizationProspects: Revision2014, Organisation des Nations unies, 2014, 27p,]], p. 1.
[2] Study published in london's Evening Standard, conducted to a 200 women (30-45 years) living in Beijing or in countrsyde
[3] Lefebyre, M.A. et al. 2015. Consequences of urban pollution upon skin status. A controlled study in Shanghai area. Int. J. Cosm. Sci. 2015 Aug 20. http://www.ncbi.nlm.nih.gov/pubmed/26291783

[4] Lefebvre, M.A. et al. 2015. Evaluation of the impact of urban pollution on the quality of skin: a multicentre study in Mexico. Int. J. Cosm. Sci. 2015 Jun; 37(3): 329-38. http://www.ncbi.nlm.nih.gov/pubmed/25655908 [5] UchikawaT, Kumamoto Y, MaruyamaI, Kumamoto S, Ando Y, YasutakeA. Enhanced elimination of tissue methylmercuryin Parachlorella beijerinckii-fedmices. JToxicolSci. 2011 Jan; 36(1): 121-6.

6) Versini, François. [2013], Le charbon de bois activé, , Rouge et Vert éditions. Nouvelle édition [7] Velasco MV1, Vieira RP, Fernandes AR, Dario MF, Pinto CA, Pedriali CA, Kaneko TM, Baby AR. Short-term clinical of peel-off facial mask moisturizers. Int J Cosmet Sci. 2014 Aug;36(4):355-60. doi: 10.1111/ics.12133. Epub2014 May 10.