
NANOMATERIALS

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WHAT IS A NANOMATERIAL?

Nanomaterials consist of materials derived from modern nanotechnologies, nanomaterials that have been manufactured for decades for various applications and nanoparticles which may be of natural origin. Man has always lived in an atmosphere containing nanoparticles of which the great majority (over 90%) consists of natural inorganic nanoparticles deriving from wind erosion and volcanic eruptions. There is no single international definition and no harmonized and standardized analytical methods for nanomaterials. The nanomaterials used in cosmetic products are defined, in Europe, as non-soluble or non-biopersistent materials manufactured intentionally and with at least one external dimension or internal structure measuring between 1 and 100 nanometers (1 million times smaller than a millimeter). Nanomaterials have numerous applications in the healthcare, electronics, aeronautics, oil and gas, and cosmetics industries.

WHY DOES L'ORÉAL USE NANOMATERIALS IN COSMETIC PRODUCTS?

We use a very small number of nanomaterials (including titanium dioxide, zinc oxide, carbon black and silica) when they contribute a consumer benefit. The benefit may consist, for example, in enhanced protection from, or prevention of, the harmful effects of sun through the incorporation of nano-titanium dioxide in sunscreen products. Nano-titanium dioxide ensures very effective filtration of ultraviolet radiation. Nano-silica enables hair color creams that are very unctuous to be obtained. The creams do not run into the eyes when they are applied.

WHAT ARE THE POTENTIAL RISKS?

The very marked growth in the use of nanomaterials for numerous innovative applications has given rise to health and societal concerns. Given their particular properties (chemical and physical), nanomaterials are suspected of readily crossing biological barriers (mucous membranes, skin, meninges, placenta, etc.), being distributed in the body and inducing adverse effects on health.

The few nanomaterials used in cosmetic products are not new particulate ingredients products. They have been used in various cosmetic products for numerous years without the slightest problem for human health. The materials have all undergone a very complete specific safety assessment showing that the safety profile of nano-ingredients is not substantially different to that of non-nanometric forms. Robust scientific data show the absence of significant percutaneous penetration of nanomaterials. There is thus no particular risk for human health related to the nanometric character of the ingredients.

WHY ARE THE NANOMATERIALS USED BY L'ORÉAL SAFE?

We never compromise on the quality and safety of our products. To date, there is no proven link between the few nanomaterials used in cosmetic products and any risk for human health. The European cosmetic regulations are the most advanced with respect to addressing societal concerns relating to the cosmetic use of nanomaterials. The highly rigorous regulations demand that the European Scientific Committee on Consumer Safety assess and authorize the nanomaterials used in cosmetics. The experts have already formulated a positive opinion for titanium dioxide, zinc oxide and carbon black. The few nanomaterials used in certain of our products have undergone a specific safety assessment in compliance with European standards. The regulations also require that the nano-ingredients are clearly identified in the list of ingredients on the packaging. We scrupulously comply with the regulations for all of our products.

L'ORÉAL